

<u>Atlantean Superalloy 'Aurichalcum' Is Recreated by Phonon Transfer Alchemy</u> Alexander Putney for Human-Resonance.org – July 3, 2019

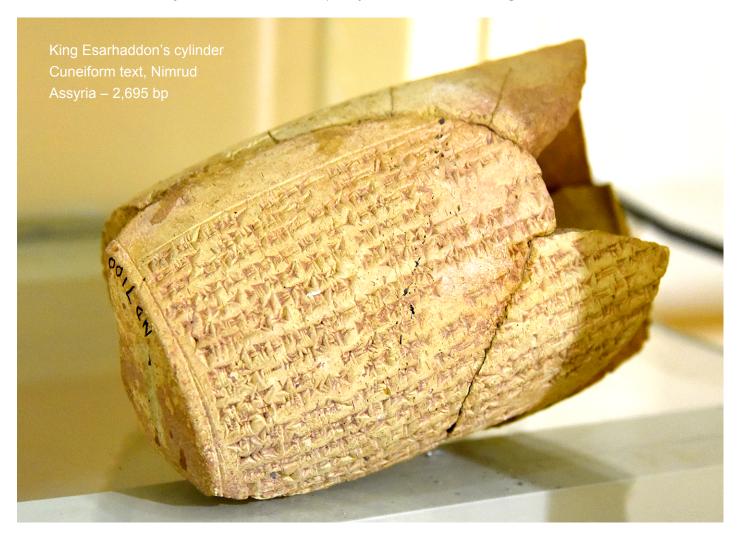
A quantum leap forward in superconductor materials manufacturing has been achieved through phonon resonance transmutation techniques, enabling bulk production of Ti₃Au intermetallic compound –a highly reflective, fiery orange metal displaying two phases with distinct configurations of titanium and gold atoms.

Ti₃Au is unique among all known materials for its exotic properties, being a type-II superconductor that maintains superconductivity *at room temperature* (under high-intensity EM field conditions), possesses four times the hardness of steel and is the most biocompatible metallic compound yet discovered.

Further research is required to observe magnetic vortex superconductivity known to occur within type-II superconductors¹ like Ti₃Au. Discovery of the remarkable quantum properties exhibited by the newly manufactured titanium-gold metamaterial implicates a great diversity of advantageous applications in the medical, aerospace and geoengineering fields that implore further testing and developmental partnerships.

These findings represent a restoration of the resonant metallurgical knowledge of Atlantean Ayurveda, as beautifully exemplified by a Ti₃Au aurichalcum mask excavated at Puma Punku Temple, Bolivia (above).²

α-Ti₃Au aurichalcum wire (above) compared with 99.99% pure Cu wire (below) The ancient Sanskrit word 'aurichalcum' (often 'orichalcum') was used to refer to this highly reflective, fiery alloy by various ancient authors, especially seen in the accounts of Sumerian cuneiform tablets dating to \sim 2,700 bp and those of the famous Greek historians \sim 2,080 bp. In all cases, precious objects made from this exotic and distinctly colored metal were implicitly associated with an origin in the Underworld.



The much older cuneiform examples of such unusual accounts were recorded on small clay tablets excavated in Mesopotamia, recovered among many fascinating tablet texts from Assyrian cities; of King Esarhaddon at Fort Shalmaneser, Nimud and from the palace library of his successor Ashurbanipal.

Esarhaddon gave the following account of his reconstruction of a temple dedicated to Assur, specifying design choices that included placement of "red gold" aurichalcum (*'russu sariru'*) reliefs of minotaurs ('lahmu kuribu' or human-bull hybrids), denizens of the Underworld of *Aralu*, as guards flanking the inner sanctuary:

The sanctuary of Assur, my lord, I inlaid with gold. Lahmu kuribu of brilliant red gold I set up side by side. The inner sanctuary of Assur, my lord, images of gold, creatures of the deep, I set up on its right and its left.

Similar accounts from ancient Greek literature identify aurichalcum objects as gifts of Hephaestus (God of blacksmithing and fire) from Hades, the Underworld. Drawing from antiquated sources that remain unknown today, Hesychius, Hesoid, Homer, Strabo and Plato offered various references through poetic language that have received little attention from modern-day metallurgists. Hesychius gave an interesting description of aurichalcum as "copper resembling gold". *Strabo even gave furnace instructions for conversion of metals:*

There is a stone in the neighborhood of Andeira which when burned becomes iron, and then, when heated in a furnace with a certain earth distills pseudoargyron and this with the addition of copper makes the [metallic] mixture 'krdma' as it is called, which by some is called 'aurichalcum'.

99.99% pure Cu wire Starting material

Atlantean Reactor product Aurichalcum α -Ti₃Au wire



Strabo's basic furnace heating process achieves transmutation of Au and Ag precious metals from Fe and Cu base metals, as described in Putney's findings. Examples of Atlantean aurichalcum objects of the kind mentioned by Greek authors do exist. The stunning aurichalcum mask from Puma Punku is known from a few photographs, yet is no longer on public display at the Museum of Precious Metals in La Paz, Bolivia.

The many enigmatic, seemingly incomprehensible accounts given by ancient authors on the subject of 'aurichalcum' have left modern historians in utter confusion when forced to come up with translations for other, closely related transmutation terms like 'pseudoargyron' that clearly defy the limited understanding of present-day atomic physics. Copper can be converted to silver by the same processes given by Strabo.

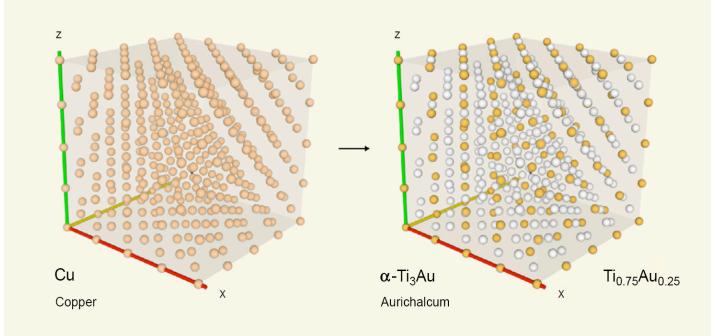
Archeological and alchemical research presented by Alexander Putney bridges the information gap between the antiquated terms of historical texts and the complex scientific terminology of modern physics, revealing the Atlantean superalloy to have been recently rediscovered as the intermetallic compound Ti₃Au.

The fiery golden transmutation products of Putney's Atlantean Aurichalcum Reactor (above) exactly match the many clear descriptions of aurichalcum given by multiple ancient sources. Upon melting pure Ti₃Au aurichalcum, the intermixed gold and titanium components readily separate into 57.8% gold and 42.2% titanium by weight, due to the significant atomic mass disparity between the two elements.

In their recent publication on the 'High Hardness in the Biocompatible Intermetallic Compound β -Ti₃Au' (Svanidze *et al.*, 2016), Rice University researchers defined the crystal lattice structures and high hardness values for both the α - and β -forms of Ti₃Au intermetallic compound.³

Characterized for the first time by the Morosan Research Group, small beads of Ti₃Au were produced by repeated arc casting of 99.99% pure Ti and Au stock laid down in the proper stoichiometric proportion of 3:1 respectively. The beads contained a majority of β -Ti₃Au, with intermixed regions of α - and β -forms.

The present advancement facilitating bulk production of both the α - and β -forms of Ti₃Au was completed in May of 2019 by Alexander Putney, artist and self-published author of Human-Resonance.org. Putney's breakthrough invention of the *Atlantean Aurichalcum Reactor* had been under development since 2018, and now achieves resonant atomic transmutation of several pounds of 99.99% pure copper starting material into >95% α -Ti₃Au intermetallic compound in just a few weeks of operation at low temperatures.



Replicating volcanism, the reactor conversion process applies heat and gas pressure to produce α -Ti₃Au, with a final annealing process being further required to compress the α -Ti₃Au reactor product into the high-density β -Ti₃Au lattice structure for all high-end applications requiring high hardness or superconductivity.

The safe use of resonant frequency-induced nuclear reactions for bulk conversion of metals from one into another represents the most important atomic physics breakthrough of our time that presents such far reaching implications for the immediate future of human technology, deserving the attention of all of humanity at this crucial juncture in our collective development as a global technological society.

The novel dynamics of resonant atomic recombination events, accurately described for the first time in this groundbreaking research, provide a clear set of crucial revisions to contemporary scientific knowledge concerning Nature's atomic laws. High-precision temperature regulation using digital set-point ovens facilitates specific targeting of phonon resonance thresholds that induce waves of rapid atomic reactions across the surfaces and throughout the mass of the starting material. Conversion requires dwell time at phonon resonance with the Au and Ti target elements, calculated at 38.945 and 38.941 Ghz respectively.

Putney's newly completed Atlantean Aurichalcum Reactor offers indisputable verification that the exquisitely simple 'phonon transfer alchemy' technique effectively converts base metals into precious metals, as well as an exotic, *superconductive alloy exhibiting extreme hardness and 98.7% biocompatibility.* In this case, the truth is actually more astounding than any science-fiction narrative could possibly convey.

When asked what led to this alchemical breakthrough, Putney credits the phonon resonance formulae of geologist Walter Lussage that became published for the first time through the research of J. Champion, pioneer of resonant transmutation processes using heated yeast baths for converting silver into gold.

Putney explains: "Using the phonon calculations I successfully converted copper surfaces into silver. Then I targeted conversion of copper into gold, but I got this instead! *Atlantean aurichalcum* –so extraordinary... its electric orange color hasn't been seen for thousands of years."



The two transmuted Cu plate nanocoatings, Cu \Rightarrow Ag and Cu $\Rightarrow \alpha$ -Ti₃Au, were presented online in June of 2018 (video stills above), along with what constitutes the first documentary video⁴ to record bulk surface transmutation of a base metal into a precious metal, visible to the naked eye.

This remains the only video of its kind ever published *–accomplished in an open pot, on an open campfire.* Viewers of the brief resonant transmutation documentary have even left multiple comments on the video confirming they have successfully replicated these fascinating results under the same simple conditions.

Samples of Putney's Atlantean Aurichalcum Reactor products are sold at his website, now making Ti₃Au commercially available for conducting further scientific testing and analyses required to define superconductivity parameters for β -Ti₃Au. Bulk purchase of α -Ti₃Au is now offered by the pound, while the annealed β -Ti₃Au form will be made available once all pertinent analyses have been completed.

The beautiful simplicity of the Atlantean Aurichalcum Reactor design ensures its ease of use, which operates safely and silently with automated digital controls, at relatively low temperature and pressure settings, drawing low energy from a 220V 10amp electrical source.

Design specifications and operating instructions for the Atlantean Aurichalcum Reactor are also available for purchase at low cost directly from Alexander Putney at Human-Resonance.org, requiring only a standard Non-Disclosure Agreement (NDA) to ensure the intellectual property rights of the inventor.

Mass media coverage of the 2016 Rice University press release concerning discovery of the high hardness of β -Ti₃Au included references to the new metal as "the Iron Man alloy". Although Ti₃Au is not technically an alloy, being classed as an 'intermetallic compound', the 'Iron Man alloy' media meme brings attention to the fact that the extreme hardness of β -Ti₃Au was directly referenced by Hollywood scriptwriters over a decade before and widely promulgated in blockbuster films several years prior to the Rice University research.

In *Iron Man* (2008), design of the Mark3 v01 suit (film still detail below) included new specifications given by military contractor Tony Stark for automated manufacturing of body-suit shell metals from a special highstrength titanium-gold alloy known from top-secret aerospace applications for military tactical satellites:



Notes – Main transducer feels sluggish at +40 altitude, hull pressurization is problematic. I'm thinking icing is the probable factor... Connect to the Cisco and have it reconfigure the shell metals. Use the gold-titanium alloy from the Seraphim tactical satellite. That should ensure fuselage integrity while maintaining power-to-weight ratio...

The *Iron Man* film script was most likely completed in 2006, a full ten years prior to the Rice University research announcement on Ti₃Au. While many would argue that this coincidence is insignificant, or that the prescient insights of sci-fi authors has more to do with creative brilliance on their part than any kind of subtle information control techniques being employed, the truth is becoming evident to those of us who can still think for ourselves.

All the hype surrounding the hardness of Ti_3Au is designed to hide its superconductivity. Here's how simply the control scheme works. The key is to create easily controlled narratives that are covertly fed to the public through mass media to limit any wider scope of discussion on the topic.

"Whenever you see or hear of titanium-gold, you think 'Iron Man alloy'!"

This reminder is repeated as an advertisement for the Hollywood disinformation reel showing in theaters throughout the decade since the first film release in 2008, followed by sequels in 2010 and 2013. Then Iron Man appears in multiple films in the Avengers series, and it goes on and on... This basic containment technique has actually worked quite well, until the present exposé.

It is well known that Hollywood is dominated by Jewish directors and corporate financiers, and this reflects the fact that the CIA and Mossad use all media, especially film, to promote subliminal mass programming agendas relating to influencing public perception of reality.

This explains why 'science-fiction' films repeatedly present advanced scientific information in a distorted form prior to any actual media announcements. All significant 'new' technological discoveries presented publicly have already been made by DARPA scientists decades prior, before classification by government agencies as 'sensitive' topics. *The Ti₃Au superconductor is one of these highly controlled subjects.*

After reading all available scientific papers on the Ti_3Au intermetallic compound, one would have no idea what color the new metamaterial is, nor that it is a type-II superconductor. The only potential applications for Ti_3Au discussed are medical, and there is absolutely no mention of the superconductive properties of intermetallic compounds such as Ti_3Au . These crucial omissions were carefully planned and orchestrated.



Further, seemingly unrelated attempts to divorce the topic into two separate subjects *–and keep them that way in the minds of the general public–* were concocted by media scriptwriters surrounding the discoveries of 39 brass ingots during underwater excavation of a shipwreck off the coast of Gela, Sicily in 2015, which tested at 75-80% Cu and 15-20% Zn (above).⁵ 47 more bars were retrieved from the same site in 2017.⁶

News reports on the finds proclaimed the recovered bars of the Cu-Zn alloy confirm that 'orichalcum' is just brass. However, little of the associated news coverage mentioned the full literary references of Plato to its origin on the submerged continent of Atlantis, nor the description he gave of its unique coloration. Here we must restate the obvious: *brass is clearly not fiery orange and therefore not aurichalcum*. Why would so many news articles repeat the false aurichalcum claims despite this glaring fact?

This major flaw in the over-repeated cover narrative reflects desperation on the part of media controllers to contain and diffuse interest on the sensitive topic of the quantum properties of the Atlantean aurichalcum alloy that can now be used by modern society for the same advanced bioelectrical and HHO plasma excitation purposes it had been used for thousands of years in Atlantean psychoacoustic temples.

Internet keyword searches on 'orichalcum' or 'aurichalcum' send readers in disinformation loops cleansed of any data that might connect the famous historical information on aurichalcum with the modern-day Ti₃Au alloy or the notion of it being a superconductor. The dismissive "orichalcum is just brass" narrative doesn't convince any reader who can discern the color of brass from the exotic color described by many historians.

The ancient metallurgical term 'orichalcum' refers to a fiery orange-red metal superalloy mentioned in Greek literature by various historians, including Hesychius, Hesoid, Homer, Plato and Strabo. The Homeric Hymns extol the beauty of the Goddess Aphrodite with a description that includes orichalcum earrings:

I shall sing of the revered Aphrodite, the golden-crowned, the beautiful, who hath for her portion the mountain crests of sea-girt Cyprus. Thither the strength of the west wind moistly blowing carried her amid soft foam over the wave of the resounding sea... and clad her about in immortal raiment, and on her deathless head set a well-wrought crown, fair and golden, and in her ears put earrings of orichalcum and of precious gold.

Homer's reference to moist wind carrying Aphrodite amid the "wave of the resounding sea" draws association between gold, aurichalcum and the Divine influence of infrasound resonance *that evaporates mist from the ground*. Aphrodite is wife of Hephaestus, God of fire and metallurgy. While Homer's sole reference to aurichalcum is given through metaphor, the scientific significance of this hymn cannot be understated, and suggests its content was borrowed from much older Paleo-Sanskrit literary sources.

Specific applications of the aurichalcum superalloy were actually detailed in 'The Dialogues of Plato -Critias', identifying it as a precious metal used for facing the pillars, walls and floors of the inner courts of the temples of Atlantis. Various English translations of the dialogues expressed the difficulty of identifying the fiery Atlantean alloy, mistaking it for some mysterious form of copper ore mined in Atlantis:

[T]hen something more than a name —*orichalcum*— was dug out of the earth in many parts of the island, being more precious in those days than anything except gold... The stone which was used in the work they quarried from underneath the central island... One kind was white, another black, and a third red, and as they quarried, they at the same time hollowed out double docks, having roofs formed out of the native rock.

Some of their buildings were simple, but in others they put together different stones, varying the colour to please the eye, and to be a natural source of delight. The entire circuit of the wall, which went round the outermost zone, they covered with a coating of brass, and the circuit of the next wall they coated with tin, and the third, which encompassed the citadel, flashed with the fiery light of orichalcum.

The palaces in the interior of the citadel were constructed thusly: in the center was a holy temple dedicated to Cleito and Poseidon, which remained inaccessible, and was surrounded by an enclosure of gold... All the outside of the temple, with the exception of the pinnacles, they covered with silver, and the pinnacles with gold. In the interior of the temple the roof was of ivory, curiously wrought everywhere with gold and silver and orichalcum; and all the other parts, the walls and pillars and floor, they coated with orichalcum.

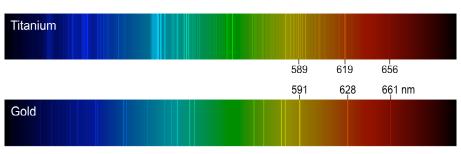
The thorough description of the magnificent temples of Atlantis offered by Plato is full of surprising details, including precise distance measurements defining a grand architectural design plan that must have come from textual sources that remain unknown. Documents like the *Piri Reis Map* confirm such sources do exist.

Like the Greek historians, most readers of Plato's Dialogues assume aurichalcum was derived from ore mining –which is not at all supported by the clear-cut findings of contemporary geology. The only reasonable conclusion is that aurichalcum is actually a *high-tech metal alloy manufactured by the Atlantean civilization through metallurgical processes that were not known to the ancient Greeks, nor to any modern person.*

Certainly, Putney's Ti₃Au aurichalcum products are the only known metallic compound that "flashes with fiery light". Rose gold is the name given to a standard binary alloy of copper and gold, also called *'tumbaga'* in South America, which presents a golden/pink hue that cannot be accurately described as 'fiery'.

Ti₃Au aurichalcum's electric orange/red coloration results from interference patterns in the reflectance spectra of the alloy's two elements. Of its appearance, Plato reported that it flashed like fire, and this distinctive identifying feature is what allows its comprehensive identification thousands of years later.

Spectral lines defining the reflectance properties presented by each metallic element are distributed uniquely, yet interact with each other in surprising ways when atomically intermingled at the nanoscale, as seen in intermetallic coumpounds such as Ti₃Au. Broad lines at yellow, orange and red wavelengths shared by both titanium and gold become amplified, whereas other wavelength ranges become minimized:



Dominant spectral lines of Ti and Au

Dominant wavelengths of light reflected by the Ti₃Au intermetallic compound are observed in frequency ranges where both titanium and gold display broad spectral lines. The lines of titanium display peaks at 589 nm, 619 nm and 656 nm wavelengths, which align closely with the corresponding lines of gold at 591 nm, 628 nm and 661 nm wavelengths (above). Ancient references to 'red gold' included crucial dinstinctions.

Epigraphy of Sumerian and Assyrian texts reveals distinct words for different forms of 'red gold'.⁷ Pure gold was denoted by GUSKIN.SI.SA, while rose gold (Au-Cu binary alloys) of high gold content were called GUSKIN.HUS.A and those of low gold content were referred to as AN.TA.SUR.RA, or "ruddy" rose gold. By clear distinction, the term GUSKIN.SÁR.DA denoted a special gold alloy produced from copper: Ti_3Au aurichalcum.

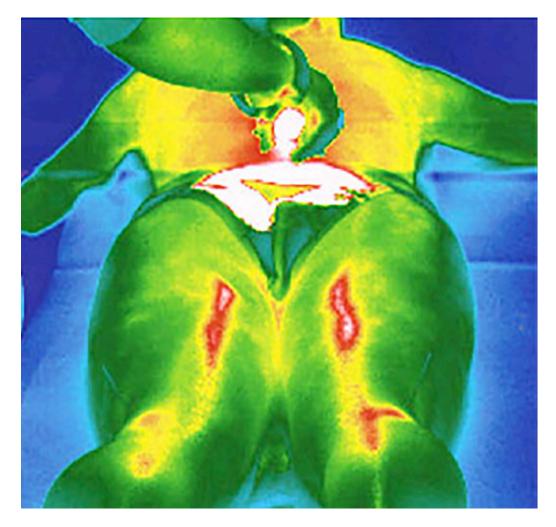
In the Akkadian language, this distinction between "ruddy" rose gold Au-Cu alloy ('sasirû') and a brilliantly shining red gold ('russú sasirû') is also apparent. Given the additional references to its provenance in the Underworld of Aralu, these terms can now be accurately identified as denoting the Ti₃Au aurichalcum alloy.

The specialized use of aurichalcum in the facing of Atlantean temples given by Plato contains remarkable scientific data on the most advanced functions of the metamaterial once exploited by its makers. Plato describes off-white stone ceilings, which is likely composed of an electroluminescent geopolymer marble resembling the white casing stones of the Great Pyramid of Giza, Egypt. Exotic particulate content of the ceiling geopolymers included powdered opal-CT crystals that would have illuminated the temples with ultraviolet-A light under high-intensity magnetic field conditions of the chambers at resonance.

The unsurpassed biocompatibility characteristics of Ti₃Au aurichalcum dictated its use on all the walls, pillars and floors of the inner temple buildings throughout the main islands of Atlantis. Synthetic basalt building blocks were cast with a high proportion of particulate metals displaying magnetic, paramagnetic and pyromagnetic properties that still act as efficient semiconductors to this day.⁸

The beneficial influence of Jupiter was praised in Paleo-Sanskrit votive hymns, for relaying the essence of Divine creative energy from the source of all life: the One, the Void. The great precision of geopositions occupied by Atlantean pyramid and temple sites worldwide effectively focuses planetary infrasound resonance for transduction into high-intensity EM fields by the semiconductor geopolymer stonework, *thereby inducing room-temperature superconductivity in Ti₃Au aurichalcum facing plates.*

Walking barefoot, touching or leaning against any of the walls or columns causes direct skin contact with the aurichalcum plates, enhancing bioelectrification for regenerative qi healing practices. The accumulated benefits of participating in sacred lifestyles and qi healing practices within the inner courts of the great temples of Atlantis conferred significantly greater lifespans, often exceeding 200 years in duration.



The highly sophisticated electrophotonic and psychoacoustic functions of the global Atlantean network of pyramids and temples excite resonant atomic reactions taking place in human skin and capillaries. In 2017, exact phonon reaction cascades defining the biophoton emissions of human skin (at left) revealed that resonant conversion of sodium into potassium occurs via chain reactions involving neon and argon das atoms.¹ Advanced Atlantean biophotonic knowledge allowed their construction of phonon transmutation reactors for bulk conversion of one metal into another by furnace induction, exciting the same class of natural resonant reactions that require thermoregulation of the human body.

The word 'aurichalcum' itself holds cryptic etymological clues that have not been identified by any linguist. In Latin, the word 'aurichalcum' is apparently composed of two root words: 'auri-' and '-chalcum'. 'Auri-' is the genitive case of the word 'aurum', meaning "gold", while 'chalcum' is the accusative case of the word 'chalcus', meaning "copper coin", according to the following case charts for each of the words:

Latin 'au	rum' = "gold"	
	Singular	Plural
Nom.	aurum	aura
Gen.	auri	aurorum
Dat.	auro	auris
Acc.	aurum	aura
Voc.	aurum	aura
Abl.	auro	auris

Laun Ch	aicus – coppei c		
	Singular	Plural	
Nom.	chalcus	chalci	
Gen.	chalci	chalcorum	
Dat.	chalco	chalcis	
Acc.	chalcum	chalcos	
Voc.	chalce	chalci	
Abl.	chalco	chalcis	

Latin 'chalcus' = "conner coin"

The genitive case is used to denote a relationship of possession, whereas the accusative case marks the direct object of a transitive verb. In this context, if the first syllable 'auri-' is interpreted as a transitive verb, *the literal meaning of the Latin word 'aurichalcum' is "golding (a) copper coin".*

This curious translation only makes sense if this hard-to-identify metal is understood as an Atlantean product of the resonant atomic transmutation of copper into the prized titanium-gold superalloy. However, the use of the noun "gold" as a verb (ie. "to gold something") is not seen elsewhere in Latin.

Although the Romans may have understood the word 'aurichalcum' as "golding (a) copper coin", the origin of the name of this fiery metal stretches back much further than has been yet acknowledged by any conventional etymology. The unusual structure of the word 'aurichalcum' confirms an origin far preceding the Latin language, which descended from the singular source of all spoken languages: *Paleo-Sanskrit*.

An outstanding epigraphic decipherment published by Professor K. Schildmann allows the decoding and direct translation of the Paleo-Sanskrit mother-language,⁹ once shared by all peoples worldwide, as stated clearly in the Bible: "And the whole Earth was of one language, and of one speech" (Genesis 11:1).

The compound Paleo-Sanskrit sacred name 'aurichalcum' can be broken down into 6 distinct hieroglyphs and comprehensively translated according to the Schildmann decipherment as a votive phrase:

aurichalcum

au ri ch al c um

Au(m) song promising (the) ability (for) cloud elevating

This unusual phrase given through the Paleo-Sanskrit alloy name 'aurichalcum' may appear nonsensical to anyone who is unfamiliar with the Atlantean language and the great sophistication of their psychoacoustic technologies. But for those who have an awareness of the great significance of Atlantean practices for elevating lightwater vapor through enhanced evaporation by acoustic resonance, the special meaning of the name 'aurichalcum' echoes many other closely related votive names given by Edgar Cayce to those individuals he identified as reincarnations of Atlantean souls in the early 1900s, as previously discussed:

Sophisticated Atlantean temple practices induced cellular regeneration and genetic purification through the focusing of creative forces, inducing the ignition of airborne water vapor within piezoelectric geopolymer stone chambers. This purificatory burning process, defined today as HHO plasma regeneration, inspired curious names such as 'Aidol', meaning "ah, going aflame, burning"; 'Bel-elduen', meaning "activating (of the) Divine, being burnt (by) That"; 'Sumudui' meaning "(the) good Mu, being burnt (by) This"; and 'Tul-mep-on' meaning "protection (of the) burning, bleating inner joy (of) assent".

Regional names during the Atlantean Era reflect the same unusual concept, such as 'Poseida', meaning "reverberating submission (to) going aflame, ah"; and 'Saneid', meaning "bestowing, going aflame". Also expressed in Atlantean regional names are references to the sacred syllable Mu, Aum, Aom, Om, or Ohm, as in the name for the region presently known as the Pacific, once called 'Lemuria', meaning "beholding Mu song, ah".

The Andean peoples of present-day South America were named the 'Ohum'. Several names of Atlantean individuals given in Life Readings by Cayce also include the sacred syllable, such as 'Is-it-ao', meaning "waning child (of) Ao(m)"; and 'Aiaoel', meaning "aye, Ao(m) (of the) Divine".

The modern word 'Atlantic' is derived from the Paleo-Sanskrit name 'Atlantis', meaning "pervading luminous rays", which refers to the glow of all living matter generated by resonant atomic transmutation reactions taking place within every living cell, *and enhanced through bioelectrification within pyramid chambers*...

The sanctity of life-giving *water* inspired names such as 'Ashal', meaning "for water"; and 'Asha-ahal' meaning "for Those, ah, water". Condensation of dense fog induced by high-intensity infrasound resonance in the atmosphere is also referenced by many Atlantean names; 'Ai-od', meaning "aye, (the) moistening"; and 'Apt-stu-ste' meaning "ah, arrival (of the) blessing (of) moisture". Taken in their proper technological context, these votive names attest to the uplifting spiritual views of Atlantean society.¹⁰

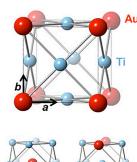
The refreshing creativity of Paleo-Sanskrit votive names playfully reference many sacred nuances of Atlantean temple physics. Hundreds of Atlantean birth names were given by Cayce over decades of psychic readings from 1910-45, and later translated and published by this author in 2017.

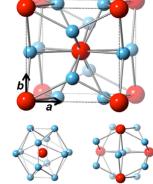
Hence, in translating the Paleo-Sanskrit name for the Atlantean superalloy 'aurichalcum', the first two glyphs signify "Aum song" —a poetic term for planetary infrasound resonance— as a force that acts through the alloy to create enhanced conditions for the evaporation of lightwater (protium) mist. So, how does aurichalcum enhance evaporation rates and why would these qualities be valued for use in Atlantean temples? A careful examination of the quantum properties of Ti₃Au aurichalcum provides much insight:¹¹

Properties of Ti₃Au Intermetallic Compound

Atlantean name: aurichalcum - "Au(m) song promising (the) ability (for) cloud elevating" Common name: 3:1 titanium-gold superalloy Scientific specifications: Tio 75Auo 25 (or Ti3Au) intermetallic compound Molar mass: 340.568 ±0.003 g/mol (Au 57.83%, Ti 42.17%) α -Ti₃Au density: 8.35 g/cm³ Crystal lattice structure: cubic В Α α-Ti₃Au α -Ti₃Au space group: Pm-3m, Cu₃Au type α-Ti₃Au crystal lattice constant: 4.076 Å α-Ti₃Au bond length: 2.93237 Å α -Ti₃Au valence electron density: 0.18 Å⁻³ β-Ti₃Au space group: Pm-3n β-Ti₃Au crystal lattice constant: ~5.1 Å β-Ti₃Au bond length: 2.84478 Å β -Ti₃Au valence electron density: 0.20 Å⁻³

Dominant spectral lines: ~590, 620, 655 nm α-Ti₃Au Vickers hardness: ≈260 HV β-Ti₃Au Vickers hardness: ≈800 HV Biocompatibility: 98.7% relative cell viability





β-Ti₃Au

Structural Analysis: Ti0.75Au0.25

(A) The crystal structure of the α -Ti₃Au phase, along with the cuboctohedron local environments of Au atoms (left inset) and Ti atoms (right inset).

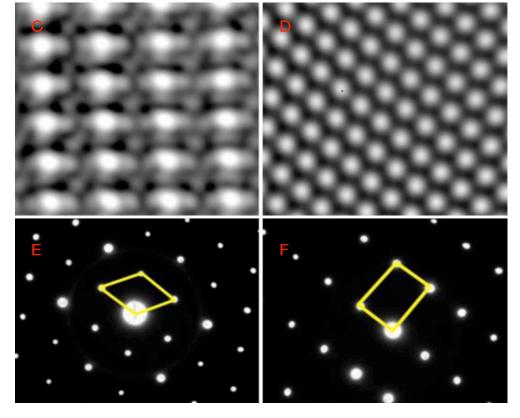
(B) The crystal structure of the β -Ti₃Au phase, along with the icosahedron local environments of the Au atoms (left inset), and the 14-vertex Frank-Kasper polyhedron local environment of Ti atoms (right inset).

(C and D) HRTEM (highresolution transmission electron microscopy) images of the Ti_{0.75}Au_{0.25} sample, taken from the [111] & [100] crystal lattice orientations respectively.

(E and F) SAD (selected area diffraction) images taken from the [111] and [102] crystal lattice orientations respectively.

In addition to numerous applications in the industrial, automotive, and aerospace fields, Ti has been widely used for implant devices that replace patients' hard tissues... Ti is one of a few materials capable of osseointegration -the mechanical retention of the implant by the host bone tissue- which stabilizes the implant without any soft tissue layers between the two. These properties enable the wide use of Ti for devices, such as artificial knee and hip joints, screws and shunts for fracture fixation, bone plates, pacemakers, and cardiac valve prostheses. Not surprisingly, the dental applications of Ti are just as common, including implants and their components, such as inlays, crowns, over dentures, and bridges.

Biomedical applications of both Ti-rich and Au-rich alloys have been previously explored in detail. Although hardness values showed modest increase in both these regimes of the Ti-Au solution the hardness was comparable to that of Ti–Ag and Ti–Cu alloys [at ≈200-270 HV]...



Although Ti_{0.75}Au_{0.25} (or Ti₃Au) displays high hardness, its mass density is comparable to that of other commonly used implant materials. Moreover, among intermetallic compounds, Ti₃Au has significantly enhanced hardness while preserving its biocompatibility... Among the Ti–Au binary compounds, Ti₃Au is the only cubic one, which is consistent with high mechanical stability and, therefore, high hardness. A three-dimensional bonding network (similar to that in cubic compounds) is deemed one of the most important parameters enhancing hardness...

Notably, Ti₃Au forms in two cubic crystal structures: α -Ti₃Au (Pm-3m, Cu₃Au type) and β -Ti₃Au (Pm-3n, Cr₃Si type). β -Ti₃Au is expected to have higher hardness, considering the Ti coordination and its Ti-Au bond length $d_{Ti-Au} = 2.84$ Å being shorter than that of the α -Ti₃Au phase [$d_{Ti-Au} = 2.93$ Å]...

Powder x-ray diffraction (XRD) analysis reveals that $Ti_{0.75}Au_{0.25}$ consists of a majority phase β -Ti₃Au (Pm-3n) along with minute amounts of α -Ti₃Au (Pm-3m) (less than 0.6%) and α -Ti (less than 4%). The majority phase β -Ti₃Au has a lattice constant of ~5.1 Å, whereas the minority phase α -Ti₃Au has a smaller lattice constant of ~4.1 Å. Because the formation energy of a Burgers vector (a vector denoting the magnitude and direction of the lattice distortion resulting from a dislocation) is proportional to the unit cell parameter, the compound with the larger unit cell parameter β -Ti₃Au is expected to have a higher hardness.

Furthermore, the two phases differ profoundly in the atomic environment types (AETs) of Au and Ti. In the α -Ti₃Au phase, both Ti and Au are 12-fold coordinated with a cuboctahedron AET; Au is surrounded by 12 Ti atoms, whereas Ti is surrounded by 8 Ti and 4 Au atoms.

By contrast, in the β -Ti₃Au phase, the two atoms have very different AETs. Au is still 12-fold coordinated but now with an icosahedron AET formed by Ti, which implies shorter bond lengths. However, Ti is 14-fold coordinated with a 14-vertex Frank-Kasper polyhedron composed of 4 Au and 10 Ti atoms...

Hardness measurements of the Ti_{1_x}Au_x alloys reveal a nonmonotonous change with x, with hardness values in the composition range $0.22 \le x \le 0.35$, which are about three to four times higher than the hardness value of pure Ti. The maximum hardness of ≈800 HV (Vickers hardness) is reached for x = 0.25, for which the cubic compound Ti₃Au forms, in two distinct phases, α and β [which display ≈260 and ≈800 HV respectively]... This maximum hardness value exceeds that of most biocompatible materials... and is similar to that of both drawn pearlite and high-carbon martensitic steels...

Not surprisingly, biocompatibility and corrosion resistance have been confirmed in the $Ti_{1_x}Au_x$ alloys for $x \le 0.40$. Here, relative cell viability was examined [to assess the cytotoxicity of the $Ti_{1_x}Au_x$ samples]... Remarkably, the relative cell viability values 98.7% (for x = 0.25) and 95.9% (for x = 0.50) were found to be much higher than 33.8% in the case of pure Ti. The exceptional biocompatibility of these Ti–Au alloys makes them particularly well suited for a variety of medical applications.¹²

Properties of A15 Phase Intermetallic Compounds

• Examples: niobium-germanium (Nb₃Ge), niobium-tin (Nb₃Sn), nionbium-silver (Nb₃Ag), niobium-gold (Nb₃Au), vanadium-silicon (V₃Si), vanadium-gallium (V₃Ga), vanadium-gold (V₃Au), titanium-gold (Ti₃Au)

The A15 phases (also known as β -W or Cr₃Si structure types) are series of intermetallic compounds with the chemical formula A₃B (where A is a transition metal and B can be any element) and a specific structure. Many of these compounds display superconductivity at around 20 K (-253 °C; -424 °F), which is comparatively high, and remain superconductive in magnetic fields of tens of teslas (hundreds of kilogauss). This kind of superconductivity (type-II) is an important area of study as it has many practical applications in diverse fields.

A type-II superconductor is characterized by the formation of magnetic vortices in an applied magnetic field. The vortex density increases with increasing field strength. Type-II superconductors do not exhibit a complete Meissner effect, only displaying partial expulsion of a magnetic field from within the material during its transition to the superconducting state.

Raising the applied field past a critical value H_{c1} in type-II superconductors leads to a mixed state (or the vortex state) in which an increasing amount of flux penetrates the material, but there remains no resistance to the field as long as the current is not too large. At a second critical field strength H_{c2} , superconductivity is destroyed.

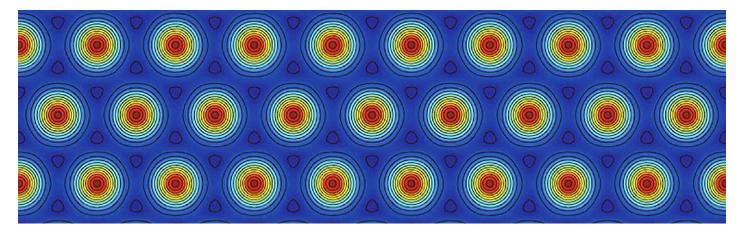
The mixed state is caused by vortices in the electronic superfluid, sometimes called fluxons because the flux carried by these vortices is quantized. Most pure elemental superconductors, except niobium, vanadium and technetium are type I, while almost all impure and compound superconductors are type II.

The Magnetic Vortex State

In 1935, Rjabinin and Shubnikov experimentally discovered type-II superconductors. In 1950, the theory of two types of superconductors was further developed by Lev Landau and Vitaly Ginzburg, theorized that a type-I superconductor had positive free energy of the superconductor-normal boundary. Ginzburg and Landau pointed out the possibility of type-II superconductors that should form an inhomogeneous state in strong magnetic fields.

Ginzburg–Landau theory defines two parameters: The superconducting coherence length and the London magnetic field penetration depth. In a type-II superconductor, coherence length is smaller than the penetration depth. This leads to negative energy of the interface between superconducting and normal phases, which manifests as lines of magnetic flux passing through the material, turning a region of the superconductor normal. This normal region is separated from the rest of the superconductor by a circulating supercurrent.

In analogy with fluid dynamics, the swirling supercurrent creates what is known as a *vortex*. The theory for the behavior of the type-II superconducting state in magnetic field was greatly improved by Alexei Abrikosov, who found that the vortices arrange themselves into a regular array known as a *vortex lattice*.



The hexagonal quantum vortex solution for a type-II superconductor (above) is very closely related to Fritz London's work on magnetic flux quantization in superconductors. In the limit of very short coherence length the vortex solution is identical to London's fluxoid, where the vortex core boundary is described by a sharp cutoff rather than a gradual vanishing of superconducting condensate near the vortex center.

Abrikosov elaborated on the ideas of Lars Onsager and Richard Feynman concerning the behavioral dynamics of quantum vortices in superfluids. In the extreme type-II limit, the behavior of a type-II superconductor in an applied magnetic field is exactly equivalent to that of vortex state in rotating superfluid helium, which was discussed earlier by Richard Feynman in 1955. Vortex lattices were observed in fermion plasma in 2005.

Quantum Locking or Flux Pinning

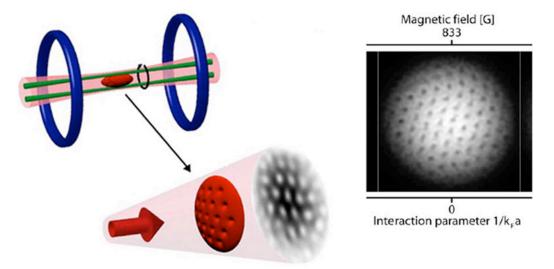
In the vortex state, a phenomenon known as quantum locking or flux pinning, where a superconductor is locked in space above a magnet, becomes possible. This is not possible with type-I superconductors, since they cannot be penetrated by magnetic fields. Since the superconductor is locked above the magnet away from any surfaces, there is the potential for a frictionless joint. The utility of quantum locking is seen through many implementations such as lifts, frictionless joints, and transportation. The thinner the superconducting layer, the stronger the locking effect that occurs when exposed to magnetic fields.¹³

Vortical superconductivity and quantum locking properties exhibited by A15 phase intermetallic compounds solidly support the conclusion that β -Ti₃Au superalloy was actually named *'aurichalcum'* in ancient times, and manufactured by the Atlantean civilization through the same resonant atomic transmutation techniques presently redeveloped by Alexander Putney as 'phonon transfer alchemy'. Surviving examples of Atlantean aurichalcum artifacts such as the Puma Punku mask confirm enigmatic accounts from various historians.

Similar hexagonal vortex lattice formations are exhibited by electronic superfluids, witnessed in fermion plasma for the first time by MIT researchers in 2005. Superfluid rotation of the fermion plasma was induced by confinement within an applied magnetic field, and gentle 'stirring' with a pair of green lasers:

MIT scientists have brought a supercool end to a heated race among physicists: They have become the first to create a new type of matter, a gas of atoms that shows high-temperature superfluidity. Their work, to be reported in the June 23 issue of Nature, is closely related to the superconductivity of electrons in metals.

Observations of superfluids may help solve lingering questions about high-temperature superconductivity, which has widespread applications for magnets, sensors and energy-efficient transport of electricity, said Wolfgang Ketterle, a Nobel laureate who heads the MIT group and who is the John D. MacArthur Professor of Physics as well as a principal investigator in MIT's Research Laboratory of Electronics...



In the left portion of the above illustration the gas of fermions (red) is trapped in an infrared laser beam (pink) and held in place by a magnetic field generated by current-carrying coils (blue). Two additional laser beams, shown in green, were used like coffee stirrers to set the gas into rotation. The result, as illustrated, could be seen in a shadow picture of the expanded cloud that showed its superfluid behavior: The gas was pierced by a regular array of vortices. The rotating superfluid gas of fermions is pierced with vortices, like mini-tornadoes.

For several years, research groups around the world have been studying cold gases of so-called fermionic atoms with the ultimate goal of finding new forms of superfluidity. A superfluid gas can flow without resistance. It can be clearly distinguished from a normal gas when it is rotated. A normal gas rotates like an ordinary object, but a superfluid can only rotate when it forms vortices similar to mini-tornadoes. This gives a rotating superfluid the appearance of Swiss cheese, where the holes are the cores of the mini-tornadoes...

For almost a year, the team had been working on making magnetic fields and laser beams very round so the gas could be set in rotation. "It was like sanding the bumps off of a wheel to make it perfectly round," Zwierlein explained. "In superfluids, as well as in superconductors, particles move in lockstep. They form one big quantum-mechanical wave," explained Ketterle. Such a movement allows superconductors to carry electrical currents without resistance.¹⁴

This fascinating superfluidity research presented by MIT demonstrates fermion plasma behaves like helium plasma is known to behave at much lower temperatures, forming a magnetic vortex lattice in high-intensity applied magnetic fields. Atlantean temples used aurichalcum to obtain *room temperature superconductivity*.

However, a consistent set of errors appears in the scientific language chosen by writers of the news article. The erroneous term 'superfluid *gas*' is used throughout the article instead of the accurate term 'superfluid *plasma*'. Certainly, fermion gas was injected to form superfluid *plasma* that demonstrates a vortex lattice.

Why, in this and so many other news articles on related subjects, is the accurate word 'plasma' entirely avoided? *This is another one of those 'sensitive' subjects flagged for mass media information control.*

This overused obfuscation technique is commonly seen in the atmospheric sciences, where purposefully misleading and ridiculous terms have been officially designated –like the name 'Steve' for to arcs of HHO plasma that form along standing wave paths.¹⁵ HHO plasma arcs were formerly (and incorrectly) referred to as 'proton arcs' to avoid naming the actual element that forms hydrino plasma: hydrogen. The term 'HHO plasma' is only allowed in lab physics, *yet Atlantean temples generated atmospheric HHO plasma*.

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