

Sanātana Vijñāna & Warangal Fort

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Abstract

Telengana, the new province of India (2014) is explored from a Science Heritage perspective. It is seen she has an 'impact crater' of a geological period of the pre-Himalayan (Eocene) period. It has dual rings like complex craters acting as ramparts and hence the entire is the Warangal Fort. This is a case of 'natural heritage'. Inside it is a Siva temple which is the central piece. It is a case of 'man-made heritage' and provides material for the Caption. Temple's remains (demolished during the Islamic period) are studied from Science and engineering Heritage perspectives. Engrossing field study leads to interesting transpiration that yields a plethora of Hindu Sc & Tech aspects dating to c .13-14th A.D. Astronomically the temple appears to be associated with the star Betelgeuse i.e., Rigel of the Orion constellation (Vana Rājā Kalāpuruṣa Maṇḍala). The 1000-pillar temple complex - Hanamkonda (Han ūmān \ Hanūmā town) is associated possibly with the same constellation. There are three structures and the layout is alike Orion's eastern triplet (κ -Ori – ϵ -Ori - & α Orionis from S-to-N). These construe archaeo-astronomy (ancient pure science). Historically belongs to the Kakatiya (medieval) extending backward to tribal societies and pre-periods. Preliminary surface scanning of the satellite images of the Hyderabad Muslim heritage region indicates vestiges of a star\triangular shaped foundation of a possible erstwhile structure to the west by southwest of the Golconda fort. An excellent example of Vedic Sc. & Tech.

Keywords: History of Science, Sanātana Vijñāna, UNESCO World Heritage Site, Vedic Science, Warangal Fort.

Introduction

In this presentation, we discuss our efforts (select aspects) on the ground Telengana in the domain of History of Sciences. We shall use Photographs, Satellite images, and CAD drawings.

- (i) (a) The Warangal fort seems to be a meteorite impact crater around which various historical periodic societies from ancient times built in stages and India is known to have meteorite impact craters [Bhattacharya-a 2015]. We have discussed the related aspects among Civil Engineers and Geologists, who all have concurred that (b) collinear issues may take us to times when only 'original inhabitants' (*Ādivāsīs*) inhabited the region and (c) meteorite impacts are associated with floral & faunal obliteration of the Jurassic kind (d) globally, this is possibly the sole impact crater that also lived through the tumultuous middle ages to present

period as an inhabited site (e) size wise, small! (f) Battlements of the forts and embankments of docks of ancient India were all earth\ rubble make like the Warangal (which have been reinforced in the medieval period). In man-designed forts (early medieval) the plan layout was either square, rectangle, or polygons. The Warangal member is double layered, perfect circles, with a large and deep water body, which is also a circle making the whole an exception.

- (ii) Select, the architecture and engineering aspects of the Warangal Fort c. 13th A.D.
- (iii) Select, the architecture, engineering, and archaeoastronomy aspects of the 1000 Pillar Temple (Hanamkonda,).
- (iv) A possible mound-top star\triangular shaped foundation of an erstwhile structure is lying to the west by south-west of the Golconda fort. It is discernable in parts (around Mahan-Kali Temple). The builders of the Golconda fort may have dismantled cum re-utilized the materials and or had built upon the pre-existing site (Buddhist/Hindu) as part of the historical process post Islamic supremacy over the region.

We shall discuss all such aspects in brief. Since such efforts relate to technical and scientific matters (befalls in the realm of History of Vedic Sciences) this transaction seeks to throw some initial, limited light in the (neo) directions viz., Fort & Structure building sciences; Architecture; Material Sciences; Engineering; Astronomy and pure Mathematics in the archaeological remains of Telengana i.e., evidence-based science heritage.

History of the sciences has been reported in the field of remains of manmade heritage from most parts of the Indo-sub continent. Telengana (province) remains to be unraveled from such a perspective. Thus our caption's objective is nascent and groundbreaking. It is vast and our under-current objective is to focus more on 'Warangal Fort' which lies in ruins (was desecrated and devastated by the marauding Khilji period administrations who all did it to force propagate Islam in the sub-continent apart being instigated by the then belittled Buddhists - a complex historical process (self-inferred).

In published literature (peer-reviewed or not) of indo heritage limited to datum c. 1500 A.D., religion, family, ethics, empathy, sympathy, valor, stoicism, spiritualism, plural health, time-space-life-&-rebirth, thought & philosophy, grammar-&-mathematics, etc., occupy so much of focus that inquest based scholarly works pertaining to material sciences and manmade technology apparently appears nonexistent in spite of on-ground abundance. Telengana [Wikipedia 2023] is the latest province created in India (2014) and is centrally located on the Indian subcontinent. She has to the world provided (i) the Kohinoor diamond & others (ii) effulgent medieval proutist dynasties – with long historical retro connections (iii) veritably rich with abundant at surface durable\useable rocks (iv) cousins of the mighty Kalinga empire (v) Sanātana in character & content (vi) vast-uncharted tribal heartland i.e., abundant workforce (vii) UNESCO world heritage site; etc.

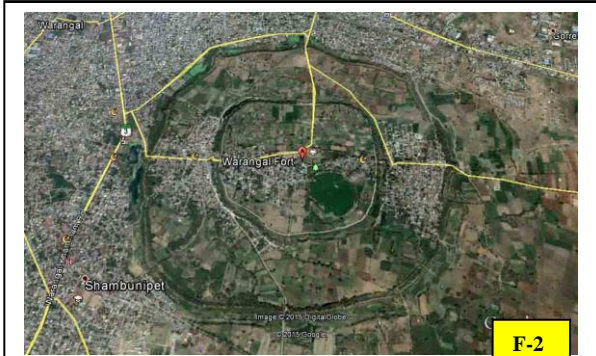
Research Methodology

Repeat field visits – ranging over 5 yrs.; camping at the site; admixing with locals; studying as much related scholarly and non-scholarly popular literature (with & without translator); multi-disciplinary team visits; discussion; sharing; recording; in-field diaring; concurrent audit of author’s thought & expression i.e., public & scholarly podium talks (note - i).

An empirical study of geographical cum geological aspects of this fort and the entire region was made pre to the present communication from the bed volume of which transpired the present caption. Cadastral maps (geographical aspects included); Geological & Survey of



F-1



F-2

Fig-1 is the at-site archaeology dept guide map; own photo. **Fig-2** is the current Satellite map – downloaded from Google Earth with Thanks & Regards. Read with *note-iii-to-v*.

India map study and on-ground co-relations have been attempted. Satellite imagery observation & study including ‘brief communication’ for drawing the attention of the stakeholders particularly the young & the enterprising minds (*note ii*).

Fort & Crater Aspects

The Warangal fort (National Monument is situated 5- km towards east from Warangal rail station) is ascribed by historians to the nebulous Kakatiya dynasty of c. 13th century (Cousen 1900; Yagnik 2013). Even, its main gate is to the west as alike the Sisupalgarh Fort, c. 4th millennia B.C., (Bhuvanēśvara, [info for comparative levitation]) and Theravada heritage sites. It comprises of 2 rings and 1 water spot (Fig-1&2). Archaeologists have indicated pre-existence of the fort’s wall datable to pre Kakatiyas (undetermined). However, have not indicated that there are a pair of ‘circular walls’ and a circular water hole. Our study indicates that all the 3 are circular. There seems to be a natural

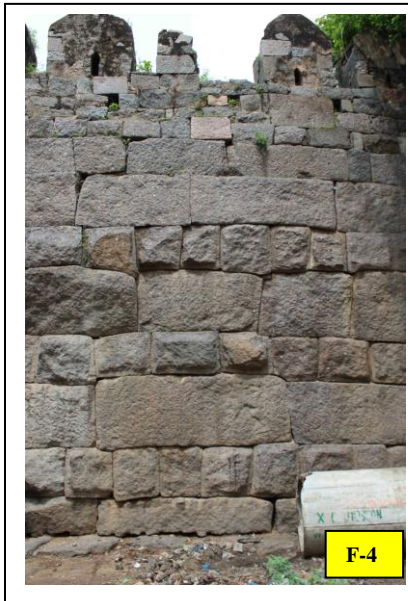
symmetry. We hypothesis this as a possible pre-Himalayan ‘impact crater’ and label it as the Warangal Impact Crater (WIC). It has suggestive similarity with numerous other impact craters and interestingly with the Yucatan crater, central Americas. Either are complex craters from geo-physics perspective (supporting information). India has another impact crater at Lonar, Aurangabad, Maharashtra which is a simple crater which is alike the Woodleigh & Alaska members. Geologically the WIC is young. At an off-center of the water body the alleged meteorite mass is available as dug-deep red textured fragmented remains. Our hypothesis is that the '*Ādivāsīs*' (original inhabitants) communities used the ringed walls as natural protection which was subsequently used over and over with the addendums as firm constructions done in stages. The site has 2 walls and 2 moats

(extraordinary indeed). The inner ring (1 km in diameter) is constructed of medium and massive basaltic & metamorphic blocks (local material). It is load structure in its entirety. The entry gates have 'security check enclaves' (*note-iii*). In the battlements one layer of large blocks are surmounted with a layer of small blocks (Fig-3) having *sandhi bhanga jodas* i.e., one block locks into the other which makes it 'slip proof' i.e., keys (Fig-4). The blocks are rectangular of various measure, the large ones being 3' H x 5' W x' 10 L (average). The battlements (either rings) are vertical on the outer and fall steep into the moats. The outer ring\fortification is of 2 km in diameter; is made of earth being emboldened at places by trenching & gathering from the outer side which has created another wide shallow moat (type). It is 15-20 ft. high 40-50 ft. wide at base and 10 ft. wide at apex (Fig-5). It is massive. Even known indo authorities alike Kak (Kak, 1992-2002) have not covered Warangal nor has the indo modern scientific literature pertaining to *Vedic vastu*.

Rakhal Das Banerji in c. 1885 had discovered Mohenjo-Daro which had heavy engineering based load structured citadel gates & security towers (Harappa 1995). This is burnt brick structure as alike India's Bhatinda Fort (*note-iv*). Mud-forts are soil gathered structures hence have different mechanics & engineering. Two unique man-made mud-forts have been studied by this author (Bhattacharya & Naik-a 2008; Bhattacharya-b 2017); either are close examples of Vedic 'Jala Durga'. Pakistan has one called 'kuchha killa\mud fort' (Ali, 2011); it is a (rare) case of mud castle. From *Vedic Vijñāna* perspectives our candidate (the WIC) may be a case of 'Mahi Durga' (Vedic mud fort i.e., engineered devices with a Blue print; inland locus) as described in Hindu theological treatise *Dharmaśāstra* (Manu c. 350-275 BCE) which is absent in the politico-administrative treatise *Arthaśāstra* (Kautilya c.350-275 BCE). Manu & Kautilya being posted by various scholars to the same period.! *Matsya Purāna*, etc., ancient-lore(s) are said to also mention further leads (Mitra, c. 1625); see (*note-v*). Vedic mud forts are engineered devices. The WIC is not. Alike the Himalayas; the Godavari or the Indian coast line the WIC is a natural member (created by earth-asteroid collision). The WIC mud\rubble make structure was given stone revetment around 13th century. Vedic societies had lived in it; adopted & upgraded it; etc. In Europe to protect Christian missionaries & presbyters from the attacks of the Pagans 'Domburges' had been built (*note-vi*). Thus, we stand as the solitary reaper with relative difficulties & advantages.



Fig-3 is that of the inner ring in the afar – SE side - of the impact created water hole. There is disorder in the stack. The etching suggests possible stacking during conservation & site clean exercise. **Fig-4** is that of the also of the same wall (battlement) at the front gate. **Fig-5** indicates the large width dimension of the earth\rubble outer ring\battlement; East. Photo –own.



Natural Impact Crater as Fort Like other reported impact craters the WIC is circular. Its water hole is to the SE of the circular format (off center) which is noteworthy (Fig-1 & 2). The site's geomorphology is composed of soil of variable depth (only monsoon period good moisture; rest not) and basaltic rocks as up-close strata i.e., agriculturally unproductive thin denuded topsoil. Paedology is old, inert, and entirely



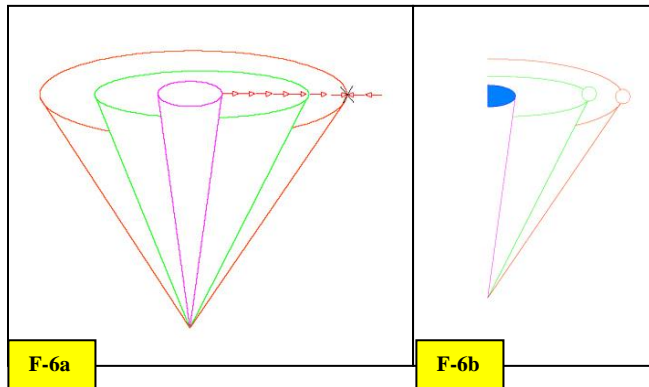
non-energy deposits. Meteorite impact caused shock waves to conserve well in bulking mass (wet soil) and not propagate well in such stratigraphy (rigid mass).

Therefore, the

mechanics of shock wave propagation, conservation, and neutralization in such non-bulking conditions coupled with the possibility of an inclined trajectory of the impactor may have caused an off-center crater; faults\ crevasses of variable width, depth, and upwelling (unusual indeed. The crevasse became the moats. Now, dual rings (complex impact craters) do not form sans moisturized topsoil burden. *Inter-alia* all this may mean that such part-&-parcel of the Deccan was non-hilly and had good soil moisture at the time of the impact (compared to c. 2015-2020).

Circular Ring Formation Mechanics

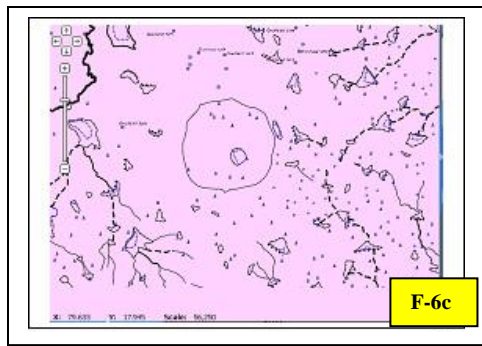
A giant force (meteorite) had met an immovable and rigid object (Deccan trap) resulting in the manifestation of all the 3 Laws of Newton's motion. The energy component along the central axis (long frequency) remained in dynamic inertia (Newton's 1st Law) post 1st contact and rebounded (3rd Law) uniformly post conservation i.e., phase change (like S waves – to – T waves?) which caused a wider angle of return from lower denser media. The water body (Fig-6 a) alludes to the (approx.) size of the meteorite. The inner ring was caused immediately post the meteorite impact (1st contact) as the rebound was uniform which resulted in the radial architecture of the inner ring. It is also the at-surface shock wave cum liquefaction region. The outer ring formed whence the horizontal component of the impact got neutralized by the earth's strata that was\is in static inertia (relative). It is a case of delayed action mechanism compounding with residual upwelling energy (as the magma reset the {dented} interior architecture). The depth of the point of rebound (cone vertices) is the factor for the radii of the ring(s) and not the angle of incidence of impact or the architecture of the impactor (Bhattacharya & Ramancharala 2017). If such from space impact hypothesis holds good, then the inner circle should be marked by faults fissures in ringed contiguity. Archaeologically & geographically indeed it is so. The inverted cone (Fig-6 b) represents the 'zone of entropy' and the upwelling (rings) are signatures of



enstrophy (energy for thing). Using CAD, Fig-6 a & 6 b graphically explain the mechanics of crater-&-ring formation post meteorite impact (*note-vii & viii*). The Archeological Survey of India, Hyderabad Circle followed us with a historical site supra report on the defensive dual rings (ASI, 2021).

Fig- 6 a & 6 b are CAD graphical presentation of the dual ring formation mechanics when the meteorite hit location Warangal and the penetration of the force and its rebound.

Foot note is new for Figure No. 6a and 6b. Was not there in the initial submission



Special Finding

Interestingly, current satellite images show dual rings (Fig-2). However, pre-independence govt., of India survey hydro\geological records (Survey of India 1871 & (note-ix)) & commercial maps (India 2020) indicate only a mono ring (Fig-6 c), i.e., the inner ring & the water spots are indicated only. These possibly are the earliest on-foot official survey-based geospatial records. The Lithological information generated by using the Rock Works-16 software generated a 3-D map of hard rock areas of Warangal district via ‘Shuttle Radar Topography Mission’ SRTM; 2000-14 (NASA 2015) data shows

Fig- 6c : 17.9561°N \ 79.6147°E, Top Sheet No. E44N5 or E44N9 (?). Hydrographic, Survey of India, Scale 1:56200. Shows only one ring & the water hole, correctly.

a signal coincidence as ‘nil’ of even fractured granite (suggestive flats) in our focus domain (CGWB 2022) and whereas, Warangal dist. is well known for extensive surface hard rock outcrops. Such technical records posit this multi-disciplinary model based in-field work as green/nascent i.e., a lot of much work due. The outer ring is predominantly an earth-dumped structure. The inner ring is comprised of earth dumplings cum stacked cut-granite blocks (load structure) within which is a temple complex of numerous periodic structures in an overall rectangular perimeter on flat ground. It is not castle\not like Golconda. Thus, the WIC is a unique case of a whole natural crater acting as a dual-walled fort. Presently is extensive encroachment by human settlements within the outer and the inner ring; demographically: Moslems & Hindus; mostly post-1950. It is now a dual-walled citadel. Case-wise, this is a singular pan globally (in reported literature). It is an amazing case of ‘heritage neglected’ waiting inquest by abler minds.

Fort Temple

The temple inside the fort was dedicated to Rudra Mahādēva of the siddhantic category being astronomically associated with the Kalapurusha Maṇḍala (alpha Orionis; {see Fig-20a; b}) & note-x. Siva temples of post c. 975-1000 A.D., in India, face East with water bodies on any side other than the west. In Fig-7a we note a granite monoblock ‘Shakti-pitha’ made of numerous offsets; two-way energy danglers and a polished lingam as the centerpiece inset. The etched lines lead the eye from the base towards the lingam (focus domain). They describe geometrical symmetry and repetitive mathematical numbers with proportionate increase and decrease of size i.e., mathematical-geometrical progression series while retaining the angles & the curves. There are also energy peakers (up & down pointed) that collate the random forcing and project them in an ordained manner into the space thereby reducing internal stress build-up, and instilling longer & blemish life. The shiest make high gloss Lingam indicates the Brahmasūtra alias cosmic maxim (Bhattacharya-c 2012). Likewise, similar designer polished schist make very large circular floors are noted in the Jagamohana (audience place). Such circular floor member is singular on pan India basis (may be as well pan global datum basis).



F-7a



F-7b



F-7c

Fig-7 a is the principal anicon at fort temple Warangal. Fig-7 b is education cum applied science device to compass the space. Fig-7 c is the enlarged version. Author is explaining the embedded & applied aspects.

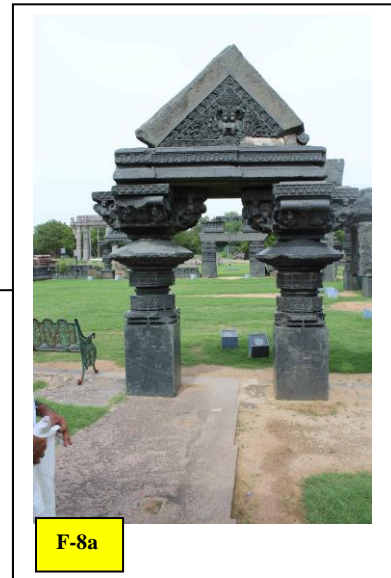
The Sanskrit ‘lingam’ & ‘Pīṭha’ terms are technical phones and denote ‘indicator’ and ‘platform’, respectively. Fig-7 b is that of a free-standing lingam on a square Pīṭha. This is an Ākāśa lingam (sky indicator). It is a vertical cylindrical geometric device set up on a square Pīṭha that prominently indicates the four cardinal quarters (viz., *aisanya*; *nairutya*; *agnee* & *vaayoo*) via the indented cuts/offsets (circular Pīṭhas represent the azimuth). The lingam (indicator) from base to top is quadrangle; hexagon; octagon, hex decagram, thereafter a circular cylinder and a center point = common ratio geometric progression. It is a direction\space\volume\weight compassing device (secular\ scholarship related). Fig-7 c is the close-up view’ of the author explaining to the accompanying multi-disciplinary team members (note-xi). Fig-8 is the permanently re-assembled decorated gate-way (arch\ *Toraṇa*) due to Government conservation efforts (post 1980?). The *Kirtimukha* (chief architect-cum-engineer) crowns such arch comprised of dual ornate unique *panavaka* (slim

waist) pillars that are indented deeply reminiscing the then ornaments & bangle varieties. The sill is comprised of segmented cross-bars. Such segmentation had happened due to vandalism i.e. fall & break (see Fig-11 c). The *Kirtimukha* is housed in an apparent triangle. It had a *thikiree* (diamond) layout signaling his eminence to the beholder. Note the elaborate apron. It is that of an erstwhile seat of some icon\idol! Thus symbolic erection has caused a fusion of diffused artifacts.



F-8b

Fig-8a is the ASI erected pillar. It is a case of fusion of the *trikona* remnant of the *thikiree* with the *torana khamba* pair for symbolic presentation of the ethos of the erstwhile grand. **Fig-8b** is that of the '*kirtimukha*' alias 'the maker's face' is the chief engineers' \ chief architect's signature. It is alike a medieval QR code! He was a very important person and had his signature embossed in most glaring manner at a prominent location. Alludes to a proutist engineering society (Vedic *Vijnāna*).



F-8a



F-9

Fig. 9 is that of an ornate pillar. It suggestively is mono-block whereas it is not so. In fact, it is segmented with one segment being fitted into the other. The deep etching was done to exponentially multiply the surface area and transpose the vertical component of the load into the atmosphere thereby ensuring non-shearing, and or non-chaffing/peeling. As if the machine finished! The arches are of bars and stilts type; are segmented i.e., no monolith i.e., mono-block (Fig-10). These *kakatiya* granite load-bearing pillars show unique aspects of mass & volume reduction with an exponential increase of surface area; and intricate sizing with vestibules, energy vectors, and peakers that distribute, dissipate loads, and cancel the thrust/s. It helped in erection and seismic shock resilience; anti-chaffing; anti-shear i.e.,



F-10

Fig-9 ornate pillar ostensibly supporting the now vanadised *mandapa*; poly block (assembled) medium load capacity. **Fig-10**: Heavy load bearing; mono block; present housing the *Brusava* (Bull – Siva's vehicle) – looks slightly towards the NW i.e., towards star *Aldebaran* (α Tauri) *alias* *Rohini* of the *Brusava nakshatra*.

long life. The combination of vertices-to-vertices energy peakers (upright-vs-inverted) with bi-partite deep verandas cum etched offsets are unique hallmarks. That too on select hard

granite plastic. All this called for fine measurements, drawings, tools devices, and Lab-to-land practices.

Fig. 10 is possibly that of the main temple’s load-bearing external pillar pairs that were possibly at the shrine’s entrance. The Kakatiyan Corinthian pillar surmounted with such cross-type Florentine cantilevers is the hallmark amidst numerous unique\s. So also the crossbar (sill). These are mono-blocks. The then (amalgamation of) heavy engineering and precision engineering aspects are highlighted. This pre-supposes precession tools; and implements; ancillary and downstream related industries. *panavaka Lakṣmī/s* (slim-waisted beauties\dames); *dīrghāṅgī* (long-limbs); *ruci- pūrṇa kēśa vinyāsa* (attractive hair-do); *Kucīpūdī* (mesmerizing fleet foot); *oddisi* (streaming) dance poses and body appendages arrests the aesthetic eye (Nāṭyaśāstra; Bhattacharya & Mahapatra 2008). Even the *dvārapālas* are female danseuse under ornate *torāṇas* in bass relief. Other notables are the numerous *aṅga-śikharas* (appended arches); *thattas* (off-sets); etc. Corner-to-corner; inch-by-inch whatnots! From the head clearance aspects, the whole looks as stunted. Not! such feeling arises due to the scale of the girth of each vertical and horizontal lithe member. Low elevation/s may be ascribed to the non-availability of sand which is the principal material in ramp construction while the flat-roofed buildings to the regional land-atmosphere processes and for engineering more habitable space (suggestive of crowd melee). Seismically Warangal is in Zone –II-c & III-c along with Bhubaneswar; Puri; Konarak; and Khajuraho - Zone III (Khan & Kumar 2020). Kathmandu is in Zone V. Such heavy scale was to vaunt technology; and human resources (muscle power) with permanency. All locally available stone types are being used. All this was immortalized as *bhāra-vakas* (load bearers) in eye-catching niches and pockets.



F-11a: The spectacular, trade mark Kaktiyan ‘Torana’ possible ‘victory arches’ as alike Roman Victory arches. Fig-11b show cases the parallelogram aspects of paired tapering pillars. The Kutab gateway arches of the following indo school of art & engineering conjures up in mind!

Inset: thrust vectoring & balancing cantilever cum ariel stay (boom). Bottom ~ prince as lion; middle ~ sovereign lion; Bharavaka; Raj- hansa in majestic plume. Author in photo; 2015.

The trademark Kaktiyan ‘*Toraṇa*’ (arches) are spectacular and versatile. They are dual stilt parallelogram free standing of high clearance wide gateways with long cross beams (Fig-11 a) and bi-lateral unique additional outer reverse cantilevers that offset the hoisted load onto opposite directions resulting in ‘minimalizing at mid-point’, heightened rigidity & stability i.e., unique design engineering (c. 13th A.D.). Such architecture and engineering have the least similarity with Roman Triumphal Arches. The parallelogram stilts taper upwards (as



Fig 11c: Raja Deen Dayal was the official photographer of the Nizam (jewel) of Hyderabad (Lion’s Lyre). His exposure dt. c.1880. Sepia. See Fig. 10. https://en.wikipedia.org/wiki/Lala_Deen_Dayal

at Parthenon, Greece) causing stability in plum. On top are boulevard parabolic arches which expand the path of the vectors of the horizontal component of the thrusts and loads while projecting some into the space around. The *Rāj-hansa* (symbol of *Sanātana\Brāhman* scholarship cradle society) and rows of large domes denote aplenty. Their inverted positioning enables energy accumulation with a down-draft path and as dissipaters. Each is a unique component and embeds a plethora of aspects of *Sanātana Vijñāna*. The immaculate Natarāja in ‘*Praśānta mudrā*’ (serene countenance) in *kunchita-utalita pāda* (limited lifted leg–right) is possibly the sole on a Pan-India basis (Bhattacharya & Naik -a 2008). Fig-11 b

conjures the possibility of acting as inspiration for the arches in the schools of Indo-state-sponsored Islamic structures of subsequent periods (note – xii). The precinct also had life-size sculptures of ‘*Mahāviṣṇu*’, etc. Fig-11 c was exposed in the year c. 1880 (op. cit., Dayal & note-xxii). We have studied Dayal’s other images of the same issue and have critically compared. Fig-11 c is token provided for topical levity.



F-12: corner pillar – human vision height, show cases the extraordinary attainments in performing arts along with a *Nṛitya Gurū* (dance teacher/trainer). Thus, *Gurū śiṣya paramparā* can be noted. School & collegiums of performing arts. *Kucīpūḍī* means ‘fleet foot’ and *Oddisi* means ‘streaming’, respectively.

Fig.-12 is that of an ornate monoblock load-bearing corner pillar. It is right-angled yet does not appear so from the inner side and thus is a nice variant. This pillar–not much taller than human vision height in particular (compared to others in general) also contains various art forms including *nṛtya bhāṅgīs* (dance poses) ostensibly of the *Kucīpūḍī* and Oddisi schools (Bhattacharya & Bhattacharya 2008); *vādya yantras* (musical instruments); etc which all (suggestively) are highly evolved from acoustic aspects (Raman & Palit 1922). The deep etching was done for the same objectives as discussed previously apart from

pradarśana (showcasing) in perpetuity.

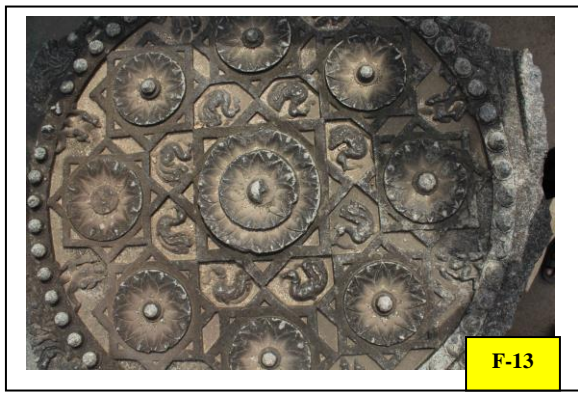


Fig -13: Lotus octavious cum sun dial, ground loose lying artifact. The 8 pointed forms are common in Hindu Sun god related art & sun dials; not stars. 8 pointed star is noted in Mesopotamian Tablet art.

Fig-13 is a case of ‘aṣṭa-dala-padma’ (lotus octavious). Every component is repeated on an octane basis with geometric precision in-laid with the Lotus (alluding to Hindu\Sanātana) which is double

petals with intermediary indentures alternately laid. At the center is a staff (partly damaged); the inner row has 8 petals & the outer has 16. It embeds myriads of polygonal layout formats including the *Sri Yantra* types. The varied perimeteric art forms suggests the dimensions of the *vayom* (space). The circular outer rim represents the azimuth. Each radian (vision line) is marked by a symbolic *rudrākṣas* (Elaeocarpus ganitrus). A pair marks the arc space of the azimuth and doubles up as an artifact of saiva chinta-o-chetana i.e., fact-joy thought & consciousness (either masks the other). The whole being boxed in a square brings out the cardinal quadrangles which help the informed beholder about light-direction-motion-&-time. This is space & time device cum solar dial! It is one among the numerous products of the erstwhile Godavari School of *Sanātana Vijñāna* (*siddhānta*, *vedānta*, *vāstu*). The *Rāja hansa* (signature of *Brāhmaṇatva*) is in plume suggesting ‘great times’ with ‘*mukta mālā*’ (pearl garland) in *thanta* (beak) for the *pratipālaka* (maintainer i.e., the sovereign). It too wears one around the *Kaṇṭha* (neck). Each member beholds engineering geometry and posits as study materials cum instruction boards. They comprise of squares, polygons, diamonds, triangles, parallel lines, repetitive arcs (indeed are fractals!); smooth mobius curves of varying pitches (Cullis 1922); circles; cylinders; acute curves (convex & concave) and centre points; etc., (Bhattacharya-d 2008).

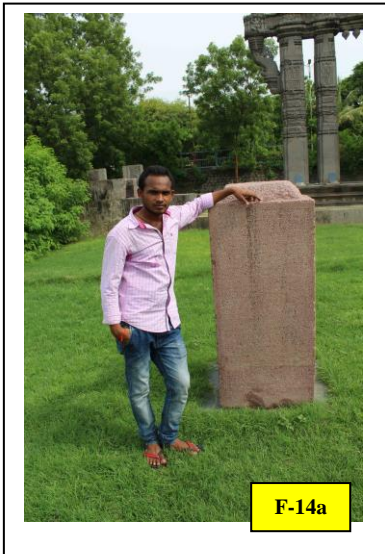


Fig -14: Red stone, ostensibly meteorite material? Or from Golconda region?
Fig -14b: Erstwhile very special structure's red stone make base visible. Field study in progress. NIT-Warangal scholars are seen. Thank you & Good wishes.

Fig-14 a is that of an inscribed pillar (defaced?). It is made of red color metamorphic stone. It is neither red granite nor sandstone. We guess that it might be the meteorite material. (NIT scholars posing beside—during joint field study). Red meteorite material is thus far unreported.

We know red denotes Rudra aspect of Siva i.e., rudra-siva. It can also be the material from around Golconda Fort. Near similar material is also noted in the Qutab Minar (New Delhi), which was constructed after the attack on this site. Numerous artifacts were carried away to the Qutab Minar as ‘war trophies’ from various desecrated\demolished infidel’s sites (including from this site), which vets the value of the WIC and each of the components (supporting info). Fig-14 b in its far left top corner shows the remnants of a dual seated structure which possibly may have been that of Rudra Mahādev’s temple base or that of the emperor’s seat cum *maṇḍapa* (ministerial\courtier’s podium) jointly or severally.

Fig-15 is that of the tall, middle-aged Kakatiya emperor. His facial morphometry is that of a northerner. He is bedecked and bejeweled like the Gajapati emperor of Kalinga as in the art of Konarak dated to the same century (Bhattacharya & Bhattacharya 2019; Bhattacharya-e 2023). Elsewhere, in other artifacts, the emperor is represented as a snarling adult and as a frolicking lion. The twine is the theriomorphic signature of Ganapati Deva and Prince Prataprudra Deva, respectively. His cousins the kalingiyas are depicted as juvenile tusk-less pachyderms (sans any ornaments or even appendages) in the act of saluting the Kakatiya! Thus, vis-à-vis their cousins the kalingiyas (Apte, 1957) the Kakatiyas are noted to assume a higher pedestal alike present-day office politics (note-xiii).



Fig 15: Ganapati Deva or Prataprudra Deva-II Note the *Maṇi mēkhalā* (jewel sea), it is elaborate, articulate yet heavy; *Svarṇa pavīta* (golden thread); *Udarabandha* (abdomen girdle); *Gajara hāra* (jumbo necklace); *Kaṇṭhī* (throat band). Each till date holds ground as items of south Indian jewelry & finery. etc.

Fig – 16 is that of a ringstone with a square peg hole for the next segment to be ‘tight-fitted’ in. It was lying in open ground (2011-16). The ventral side is visible. It is a cornice/volute with echinus with a row of petals (lotus ostensibly). Below it is the row of *Rājahansa* (majestic swan(s) parading around with a garland of ornate *kirtimukhas* as danglers. Top-to-bottom each pillar was ornate (unlike Greco-Roman). Herein (from the base towards the viewer’s top) the nexus between the artisan-architect-engineer-faith-&- its bloom is beholden out to the informed and the discerning eye. In dismantled form, the precision engineering gets displayed (forward and or retrofitting aspects = swift construction as is noted in the Ayodhya Ram Mandir, 2022-23).

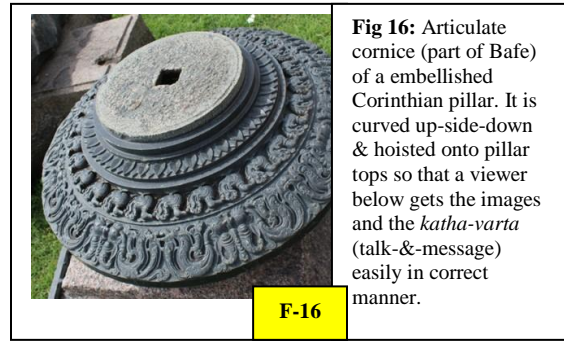


Fig 16: Articulate cornice (part of Bafe) of an embellished Corinthian pillar. It is curved up-side-down & hoisted onto pillar tops so that a viewer below gets the images and the *katha-varta* (talk-&-message) easily in correct manner.

F-16

Fig-17 gives a close-up glimpse of a select portion (eye level) from one of the pillars of the *Jagaohana*. The intricate chiseling on very hard rock plastic (granite) is noteworthy and the gloss finish *kirtimukha* as the embedded member is discernible only to the initiated & the critical eye. Each variant of the *kirtimukha(s)* represents one of the then chief architect/engineer. It is their *mohar* (seal). Via such hieroglyphics, this heritage site celebrates the nexus between the artisan-architect-engineer-emperor (state-as-patron) in this part of the world (datum basis).



Fig 17: Ornate Bafe, Jagamohana, load bearing, Black granite. Note the bangles as flutings. *Kirtimukhas* be the armlets; still in vogue in south & coastal India. Here the combination of *Kirtimukhas* & lotus bud makes it unique, being embedded amidst a crowd of Florentine profusions. It is *jhallery katha* (hieroglyphics -via-danglers) - thus is a case of graphic steganography.

F-17

1000 Pillar Temple

Between the Warangal city and the Warangal fort lies the town of

S Pole

Hanamkonda wherein is the 1000-pillar temple (note-ivx). This shrine faces east and is a complex (done to dust by the Islamic process). In the main shrine, the enshrined member in the *garbha grha* (womb room) is the anicon of the Mahādeva—the Siva Linga (image not produced). It is massive, square in plan being loaded with geometrical and engineering forms from corner to corner (note-xv). The supporting pillars and even the ceiling of the Jagamohana (mesmerizing world - also audience hall) are intricately curved. Such curving expands the surface many times more. This has imparted durability apart from aesthetics. Its entrance is to the south (thus may mark the *jñāna yōga dakṣiṇa mūrti* alias Sadāśiva aspect of Śiva?). The jam pack of the pillars compresses and expands the hot dry wind and brings the atmospheric laps rate into play thereby cooling and desiccating or moisturizing it in relative terms. When the outside temperature dips

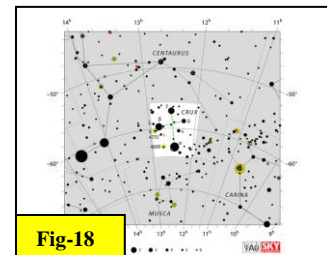


Fig-18

Fig 18: Constellation Southern Cross on a star map. Domain 40° S to 65° Lat., \11°-14° Long. True scan. Top largest star (highlighted)– points to the S pole

and gets dermis effecting dry the interior thence is warm and relatively moist as compared to the outside atmosphere. Thus this is a weather modification design. The location is the outskirts town called Hanamkonda (note – xvi). Additional images can be seen via the hyperlinked ‘supplementary files, Cosmos observation and cosmic aspects fused into manmade archaeology are reported even at Stonehenge [Darvil 2016]; in the three major pyramids of the Sphinx (Hancock & Faiia 1998) & in India (Bhattacharya & Naik-b 2006). In the case of the Pyramids at Giza (Egypt), the trio is aligned to the star triplets as are in the mid belt of the *Kalā puruṣa maṇḍala* i.e., Orion constellation. It is our cue and we have reported archaeoastronomy (including numerical-cum-geometric models) amidst the temple array at Bhubaneswar, Odisha (Bhattacharya Naik & Mohanto 2016). Our Fig-18 is that of the constellation Southern Cross (crux) i.e., *Trīṣaṅku nakṣatras* in Siddhānta science & philosophy. Only the central structure at Hanamkonda (Fig-19 a & 19 b {downloaded from Google Earth with thanks & regards}) offers homology with the *Trīṣaṅku*. The satellite images when physically correlated with the on-ground heritage site the four cardinal points of the cross are not brought out. A 1-to-1 correspondence is not apparent with the *Trīṣaṅku*. Therefore, the totality of the site has to be taken into account. When done so we note that in our focused courtyard, there are 3 major monuments in a semi-curved line along an N – S axis. And, the farthest (north) is a paired monument. This is unique. No homology is with Fig-18. Moreover, at location, Warangal latitude (17.96 N\79. 59 E) *Trīṣaṅku* is visible only for a month low on the southern horizon whereas *Kalā puruṣa maṇḍala* passes overhead and is visually (naked eye) co-incident. This spectacular constellation in all occidental lingua phones and treaties denotes Orion constellation i.e., cardinal ‘East’. Finally, in the entire gamut of *Sanātana* philosophy (sruti-sahitya-kavya) *Trīṣaṅku* is not associated with Siva Mahādeva (Mukherji 1905; Guha & Guha 1967). It is opposite of Sri Mahādeva’s theo-cultural personage? Siva in all his aspects is solely connected with *Kalā puruṣa maṇḍala*. Siva in his *Tripurantaka Mahādeva rūpa* (aspect/form) holds the Pinaka (*dhanuṣa*\bow). Modern astronomy’s Barnard’s red loop is co-incident and has been interpreted as the blazing *dhanu* (note-xvii & xviii). A natural cosmic phenomena interpreted as divine, a component of naked eye Siddhānta positional astronomy.

Table - 1 gives the inter-civilizational connectivity of the ethos (suggestive)

S-to-N	STARS OF THE ORION CONSTELLATION - Eastern Red Fiery Curve - Pinaka			
Siddhantic Name	Egyptian\Greek Name	Islamic\Occidental Name	Bayer’s Classification	Astronomical System
<i>Kartavīrya</i> *	<i>Osiris</i>	<i>Saiph (East\South) Hemisphere</i>	<i>κ-Orionis</i>	<i>Multi-Star; 2.9 Magnitude</i>
<i>Aniruddha</i> *	<i>-Do-</i>	<i>Alnilam (Mid belt\East) H</i>	<i>ε-Ori</i>	<i>Blue-super giant; 6.89 Mv.</i>
<i>Rudra</i> *	<i>-Do-</i>	<i>Betelgeuse (North\East) H</i>	<i>α-Ori</i>	<i>Variable-Star; 0.5Mv.</i>
*- 3 represents the warrior; invincible & severe aspect of Siva. <i>Al-Nilam</i> (Arabic) = Lord Nizam! The Jewel. <i>Aniruddha</i> = <i>Invincible</i> . <i>Kartavīrya</i> = Field Marshall\Director General.				

Table 1 places certain modern science data juxtaposed with archaeology (built heritage) and cultural aspects (intangible heritage) with the aim that scholars versed in naked eye positional astronomy and in mathematical astronomy (aided by optics) can in-situ validate the more. Vedic Vijñāna shall then stand well-weighed, more vetted.

Orion is in the ascendant in the current epoch. The 3 stars in Siddhānta are known as Kartavīrya (doer/d

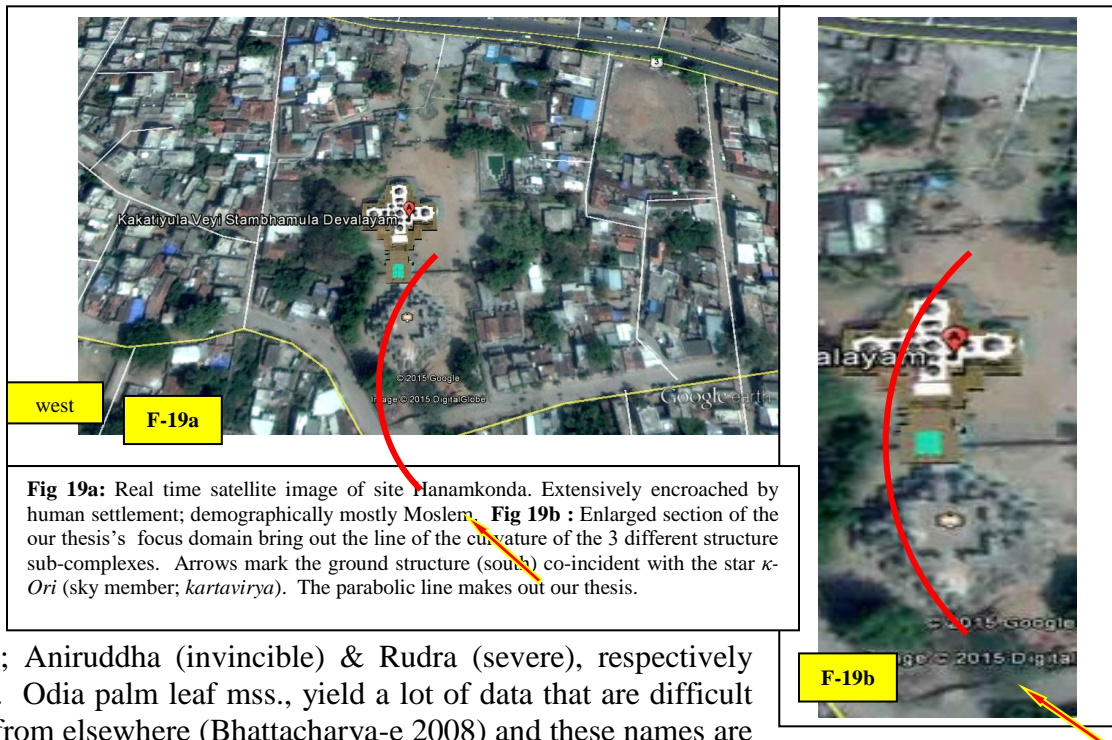


Fig 19a: Real time satellite image of site Hanamkonda. Extensively encroached by human settlement; demographically mostly Moslem. **Fig 19b :** Enlarged section of the our thesis's focus domain bring out the line of the curvature of the 3 different structure sub-complexes. Arrows mark the ground structure (south) co-incident with the star κ -Ori (sky member; *kartavīrya*). The parabolic line makes out our thesis.

estroyer); Aniruddha (invincible) & Rudra (severe), respectively (S-to-N). Odia palm leaf mss., yield a lot of data that are difficult to mine from elsewhere (Bhattacharya-e 2008) and these names are noted therein. These star triplets are apparent to the naked eye in the current epoch (modern science) as ‘variable’ i.e., ‘expanding; decaying; poly stars’. At ground Hanamkonda in each monument’s base plan the multiple star aspects are apparent to the critical eye; each base differs from the other grossly. The star-shaped temple also exists elsewhere in India (note ix). The layout plan is semi-parabolic involving the three ground members as in the sky between the stars κ -Orionis – ϵ -Ori -&- α Orionis from S-to-N while the East be the ventral side of the Orion & W be dorsal which gives the ‘bow effect’ from terrestrial eastern hemisphere. This alludes to (i) sky\heavenly-members being copied on the ground as divine homesteads (ii) macho aspect of the Saiva philosophy; all male (iii) period-based construction (iv) naked eye positional astronomy schools. Arya Bhatta says ‘astronomy is the highest science’ (INSA, 1976). A continuity of such teaching is eminent. This is a case of *nakshatra* (constellation) as inspiration for design engineering millennia ago in this part of the world alias ‘*Sanātana* archaeoastronomy’ alias ‘History of Science’ and possibly is the first report of constellation\’s being copied on the ground in state sponsored monument in the province of Telengana, India. Fig-19 b is the magnified version to behold our thesis. Kalinga in c. 7th A.D., celebrated Rudra & Mahesa in 11th A.D., Sadāśiva & Vana Rājā i.e., Tripurantaka Mahādeva. Kakatiyas (c.12-13 A.D.,) celebrated Rudra and Sadāśiva. Arrow

points out the most important ground member and its corresponding star (Fig-19 & 20 nexus).

Fig- 20 a is the line drawing of the constellation Orion and Fig-20 b is the actual as in the sky with the ancient Egyptian-Greek mythic figure of ‘Osiris’ i.e., ‘hunter’ superposed on it (note-xx & xxi); read with note-xvi. The imaginary line of the curvature involving the monuments (Fig-19 a-&b) is also writ large in the actual sky constellation (Fig-20a-&b) as in the present epoch. In numerous

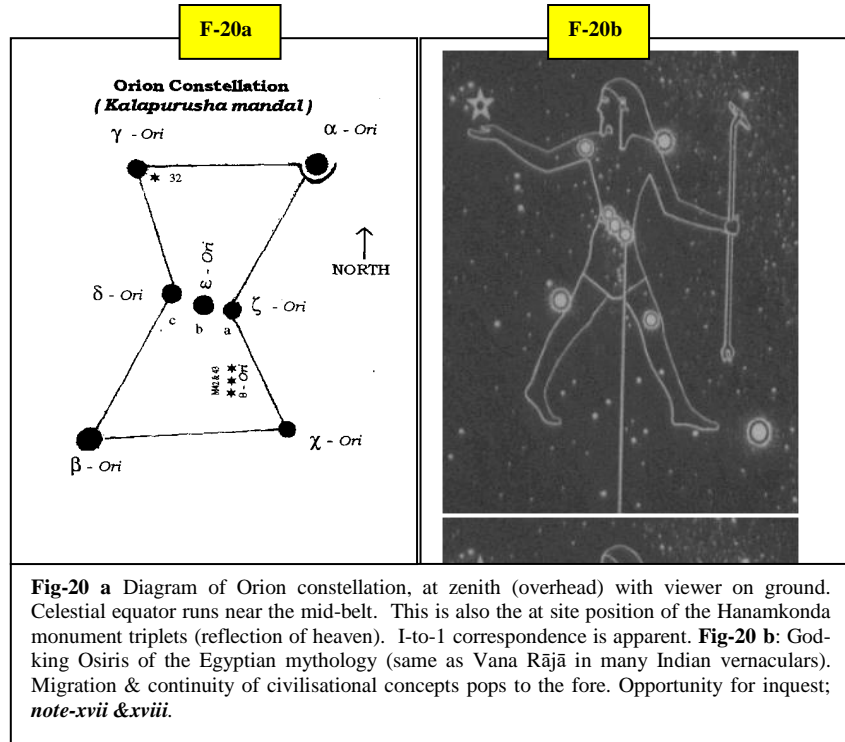


Fig-20 a Diagram of Orion constellation, at zenith (overhead) with viewer on ground. Celestial equator runs near the mid-belt. This is also the at site position of the Hanamkonda monument triplets (reflection of heaven). 1-to-1 correspondence is apparent. **Fig-20 b:** God-king Osiris of the Egyptian mythology (same as Vana Rājā in many Indian vernaculars). Migration & continuity of civilisational concepts pops to the fore. Opportunity for inquest; note-xvii & xviii.

Siddhānta treatises and popular call *Kalā puruṣa maṇḍalā Nakshatra*; read in Table-1. Archaeoastronomy can be interwoven with ancient, and pre-modern regional astronomies. Scientific studies of ancient and abandoned and encroached sites (note-xxii). Inter alia, the sciences and *Rāj Dutta kirtīs* (state-sponsored buildings) present a civilizational, which as yet remains unraveled.

Golconda Fort (Mahan Kāli Temple Mound)

The great Indian metropolis of Hyderabad’s (conjoined with Secunderabad) historical signature is the Golconda Fort (Rakesh, Deokate & Rani 2022). It is interesting to note that a star\ triangular park-shaped delineation is apparent to the immediate west by the southwest of the fort and the mound of the Mahan Kāli temple (Fig-21). Such a triangular park is also discernable from space. We feel that the builders of the Golconda fort (Kakatiyas) had possibly dismantled cum re-utilized the materials and or had built upon any possible pre-existing Buddhist site which during the historical process of Islamic supremacy over the region was further mined upon thereby happened obliteration of the signatures. The remains of the Golconda fort stone re-sizing & transportation tracks are on such side. The Theravada heritage sites face west; and are associated with pristine water spots (bamphee) so too at Mahan-kāli mound\Golconda fort. It was possibly taken over by the Hindus (saivas) and finally by the Moslems (shia sect). The remnants apparently posit as west-facing. And historically the shias have always been the most thorough in follow-up actions. Scholars



Fig-21: Fort Golconda and regional domain's satellite image (Google earth; 3D projection). Note the huge mound ~ a possible Hinayana west facing heritage site (now atop is Sri Mahankali temple). Visit Google earth with thanks.
<https://earth.google.com/web/@17.38177252,78.39933541,571.59603811a,1035.30553756d,35y,54.84051373h,59.9966306t,0r>

may look up the details, and conduct field surveys with or without this pen. Building; demolishing and material re-utilization to rebuild is a historical process in a continuum. All this is engineering and involves engineers and architects; and mechanics in lifting; hauling; hoisting and transportation is what we emphasize.

Cosmic Impact Caused Gem Formation and Discussion

Impact craters are found on all continents and even in littoral regions. However, it is only the Deccan, African, and Russian craters that are also associated with gems at the surface. Present climatic zones were not so at times Jurassic, thus climate or present geographical/orographic conditions are not the indicators. Now, a meteorite is a burning missile having ultra-high temperature and speed. When it hits the earth's surface the neighboring region's oxygen gets depleted and before the vacuum can be replenished by fresh flow-ins the impact sends (earth's) surface matter flying into great elevations, entropy is created over a very wide domain with near-pyroclastic conditions (retraction phase). Some of the debris remains within the oxygen-less regions. If such matter were minerals they would be hot, dry, and super\critically energized (reactive); the non-mineral components burn to become slag, brittle, and separate or may remain adhered. The remaining minerals then acquire the property of (near) isotope. The envira is thence also highly dense with turbulence and updrafts while all debris becomes aerodynamic and downward descent gets slow as 'column floatation phenomena' come into play. Quenching is sustained and delayed. If such hot, dry, critically energized mineral debris remains suspended in reactive gas bed volumes viz., Neon, Freon, etc., they may react resulting in chromogenic changes along with crystallization (or vice-versa). Amy also picked up that gas's color, making it naturally colored gems. While, inert cum colorless gases viz., Nitrogen (which would be too abundant during such an event) would impress itself into the floating crystal resulting in the making of translucent crystals i.e., diamonds. Thus, gems may also form in dense fluid media. If the temperature and the reactive fluid's thrust are above the critical thresholds it results in mono crystals of high refractive index. Thus a raw-colored gemstone and or a diamond is formed which eventually becomes available as a

near-surface item (under the overburden that builds post pyroglast cum debris resettling period pass). The processes may continue and or may terminate on surface touch (for the surface cools much earlier than the entropised impact site atmosphere). It is a slow and steady process with slower delayed action counters and thus is different from the (popularly known) dynamic process. Such settling and landings may spread over a very large domain thus gem formation occurs well outside and afar from the outer ring. The ring’s inner regions get to be sterile. Such gem formation theory (of ours) is different from the ‘dynamic formation theory’ (Clark 2022). In historical periods (say c. 12-14th A.D.) there was no deep mining. There were only superficial quarries and surface-gathering techniques. So the gemstones (that makes Telengana stand out among the rest of indo geo domains) should have been surface quarried material and not mined. The Popigai Astroblem crater – Russia, is also reported for gems stones (arctic-permafrost region). The moot point is that the bed material should contain mineral-embedded rocks and silica. Which the Deccan trap has.

Humans (homo-sapiens) in their present form appeared 2 million years before the present. Most of the impact craters are dated to around 3-to-2.5 million years before the present. The Himalayas were created 45-47 million years before present. And whereas Gondwana (the Deccan plateau) was tectonically created 180 million years before the present. Thus the WIC event (creation of the dual rings with a perennial water hole) happened long after the formation of the Indian sub-continent i.e., the Deccan plateau, and long before the Himalayas rose from the sea. So the WIC rings possibly provided security to any so-ever inhabitants (including the evolving homo-sapiens) from natural predators and subsequently from competing communities (wild predators especially) as human beings started evolving in the erstwhile sub-continent (now known as Deccan). Cumulatively these could have been the reasons also for the bygone minds to select this impact site. Archeological excavation under multi-lateral initiatives may lead to skeletal, Neolithic, and Paleolithic finds (note-xxiii). In the satellite images, we can see that the circular (especially the inner ring) indicates a geological break. This very ancient battlement reminds us of the Chakra-vihue. All such discussions are aspects of ‘Theoretical History’.

Table – 2 gives a comparative list of impact craters worldwide (for topical levity).

SI No	Mono Ring	Remarks	Dual rings	Remarks
1	Barrington, USA	Hard strata	Chicxulub - Yucatan peninsula; Mexico.	Sea beside
2	Lonar – MH, India	Do	Mars - NASA	Water less
3	Ramgarh, Rajasthan	Previous sea – some moisture ?	Clear water, Quebec	Very watery
4	Dhala, Shibpuri, MP, India	Do	xx	xx
5	Wolfe creek - Australia	Water body beside	Jupiter satellites	Water less
6	Nunavik, Quebec, Canada	Water	xx	xx
7	Moon - numerous	Waterless	xx	xx
8	xx	Xx	WIC	Off center water hole
Planets and their satellites also have mono, dual, complex and multi-ring craters.				

Only crater. Mono ring. S Arabia (11mts in diameter – on sand impact). WIC needs global confirmation.

Conclusion: (i) Bed strata is the primary factor. (2) The size of the impactor is next.

(3) Cone theory of energy propagation, conservation, and ring build-up has not been discussed by any scholar pre to us.

Analysis

The initial study generated an impression that lasted well. It resulted in our Hypothesis. The site was natural i.e., it was an impact crater in our Thesis. Human beings had moved into it to stay put as the rings acted as natural fences against predators resulting in a sense of divinity-enabled security and protection. By and by it got assimilated during the historical periods and possibly is the sole ‘fort temple’ of the Deccan (at least on datum basis) and impact crater temple of the world (note-xxiv). The structures were not built at one time and were appended periodically which inter-alia suggests a long construction activity period and cultural life on one hand, and on the other the vastness of the scale confounds the viewer’s mind and it misses the woods for the trees! This heritage site was versatile as it apparently offered built platforms for scholarship and performing arts along with *Śiva arcanā* (truth worship/fact perusal). Initially, there was only an icon worship and the least icon worship. The Rudra and Narayana icons (crude finish) in all likelihood were later introduction/s.

The Buddhists in the Indian sub-continent were a suspect group, ostracized and belittled lot (by the *sanātānis*) between c. 2nd B.C. and 1200 A.D. The prosecuted Buddhists invited cum facilitated the series of (indo) Islamic invasions on the Indian sub-continent & Tibet and on the WIC & other *Sanātana* sites (regionally). The Moslems (mono-theistic i.e., God-head being identified with the human feeling of ‘all-merciful’ {Allah}) were anti of idol worship and had out of disdain chosen more to indicatively destroy and desecrate wantonly the icon & related artifacts. Thereby, they created an indelible signature of their brute nature, barbarian upbringing, absence of knowledge, disdain for learning, and erudition thereby making a silent statement that their civilizational stage (on the related historical scale) was adolescent. All these come down to us as another set of ethos of cultural matter i.e., indo intangible heritage (another layer of our Thesis).

The WIC site wore an abandoned look and was full of shrubs and wild growth whence Raja Lala Deen Dayal (say c. 1875-95) the commissioned photographer of the Nizam of Hyderabad had recorded (Dayal 1880) & note-xxii. Such initial impression because multi-disciplinary modeling of study as this site is unique and from caption domain virgin. It also helped in the transpiration that the site beholds the gems of Deccan engineering (apart from real gemstones) the upper date being 1325 A.D., and the lower datum to Jurassic period. Devastating Warangal was a one-time activity for the hinterland was not food sufficient and also had subsequent sphincter revenge attacks from the joint Kaktia-Kalingan forces (supporting info). The historical marauders had to seek better pastures for settling down and that is the present-day Hyderabad (aerial 134 KM to SW of Warangal) wherein there was a *Therāvāda* settlement (yet unraveled) with ‘Bamphee’ (natural pristine spring) and good water table. None of us have done anything alike (multi-disciplinary long-period study) nor

even something alike (theoretical discussions) as do we herein. Yet, a lot much remains to be studied, reported, and above all methodically discussed.

Result

The Warangal Hindu (note - xxv) heritage site is (i) a dual ringed complex impact crater caused by meteorite crashing into the Deccan sometime around the Jurassic age (ii) it was a geological creation (iii) resulting in a unique geographical member (iv) very poor top soil (v) primordial settlements adopted it for protection against natural hazards\predators (vi) historically adopted logically (vii) veritable storehouse of the most rich example of archeoastronomy (viii) astronomically Orion (*kalā puruṣa*) was the focus member in the night sky and Siva Linga as the corresponding royal member on ground - *sanātana* ethos (ix) macho aspect of Siva i.e., non soumya (viii) other constellations have also been copied on ground (x) fine engineering (xi) large scale engineering (xii) heavy engineering (xiii) excellent cum extensive use of the most durable rock plastic (ivx) however, it is the robust engineering with tenets of *Sanātana Vijñāna* (perennial sciences) that over wows the viewer (xv) the etching of 'Raj Hansa' (majestic swan) at vital locations of the constructs drives home the point that the site espouses the liberal and meek aspect of the then theo-cultural life (xvi) prime position for the chief architect-chief engineer via his seal alias the *Kirtimukha* (xvii) that such society perused the pristine cosmos as cue encompassing centuries (xviii) the Golconda fort site apparently was a possible *Therāvāda*-then-Hindu (west facing) predating heritage structure (ixx) mankind's peerless heritage.

Noteworthy Contribution of this Transaction

Opening of the Telengana chapter in the domain of (i) *Sanātana Vijñāna* i.e., perennial sciences (ii) 'History of Sciences' (iii) Telengana's peerless contribution in the domain of indo-archaeoastronomy (iv) tangible-&-intangible heritage (v) nexus between geological events and (a) history (b) geography of India via archaeology comprised of man-made heritage (vi) the benefits of long duration; repeat field visit based hard survey cum search backed approach shored with products of advanced technology (vii) multi-disciplinary research and modeling (viii) delectable didactic discussions (ix) no sweeping statements, no conclusion (x) framework for the youth & the enterprising.

End Note

A conclusion cannot be made as this is a mono-mind; mono-pen driven groundbreaking effort comprised of conjectures; compare-&-contrast; etc., empirical methods resulting in 'theoretical history' i.e., *kathā*. Warangal Fort dual ring structure with a deep depression is theorized as an impact crater (complex mechanics type). Confirmation is due. History of the sciences is extracted from the archaeological remains at the dual sites of Fort Temple and at Hanamkonda-Warangal. Discussions are observation and evidence-based. Scope for in-field in-situ validation arises.

Meteorite strike on terrestrial strata leads to liquefaction of the ground due to (inter-stellar) type impact caused by flash input of tectonic energy (instantaneous). This leads to

horizontal wave formation at the surface and vertical (component of the impact) thrust penetration happens in conical form in a down-drive manner deep into the crust. Remains to be revealed in the WIC case (we have done hypothetical theorization) empirically. The horizontal radially out-flowing waves on energy depletion terminate leaving behind raised ground (liquifacted material as rubble heap) having circular architecture i.e., outer ring. Normally, soil regions that had good moisture during impact time are characterized within the range between ‘low to high energy soils’ as a prerequisite for the genesis of dual rings inter-alia the wet topsoil participates (Newton’s Laws). The outer ring is the primary. The inner is the secondary arising out of the rebound forcing from within (earth’s) denser crust. Locations having only hard strata or dusty (moistureless) have mono rings. In such regards, Table 1 is indicative in brief. In uniform rigid bed material, tectonic energy input (shock waves) can get transmitted linearly. It leads to asymmetric infarctions and shear cracks, which all may have been easy to adopt as moats and mine for fortification purposes down the historical periods (noted at WIC). Thus, the WIC’s ringed battlements are made of very large and medium-sized blocks of stones (local material) piled upon natural rubble heaps.

Meteorite strikes had happened long before homosapiens evolved. It obliterated the large beasts and the predators (Jurassic). Post-human evolution when humans started settling in this part of the world the dual rings were posited as security screens. Thus the site has the sanctity of having being ‘god made’. The best of Siva temples came up here (c.13th A.D.). The peerless toraṇas also.

Formation of gemstones of myriad colors, sizes, and shapes is theorized as possible due to tectonic energy impact leading to sublimation of the mineral debris and conjunction with inert yet combustible colorant gases in a sustained column floatation mechanics (due to dense fire-smoke-dust environment) in boundary-less, frictionless open envira with complete absence of oxygen.

The Kohinoor possibly adored Lord Siva’s lingam here! The tribal(s) worship Iswara (godhead) by offering gems. This is noted also at Sri Jagannath’s shrine (c. 12th A.D.) and prior to that at Sri Lingarāj (c. 11th A.D.) & Bodh Gaya (c. 7th A.D.). Gem offerings to divinity have a lot of prior art in the Indo-subcontinent. Hence, a logical connection with tribal beginnings or association doubles up in mind.

India is the land of Sanskrit alias ‘self-gelling’. And, the Sanskrit phone ‘Sanātana’ means ‘Hydespas’ in Greek and ‘perennial’ in English. The phone ‘Hindu’ is conspicuous by its absence even in *Sanātana*’s prime Lexicon (Sabdakalpadruma 1886) which is the most exhaustive pan globally and historically (note – xxvi). Govt., of India is nonchalant. The phone Hindu is a grammar-less *Vajrayāna* acronym of the Lama lingua that denotes ‘incorrigible river valley dwellers’ (own data). Save and except Persian knowing persons the neo Moslem settlers of north India (c. 10th A.D.) were semi-barbarians and ranked illiterate. They adopted the phone ‘Hindu’ to denote the natives. The user and the hearer had no clues whatsoever. The then Sanskrit-knowing people (masters of grammar and schematics) accepted the phone ‘Hindu’ at a colloquial level since it was not belittling nor offensive – rather was a geographical-cultural-attribute based (note –xxvii). The stakeholders used it

sans understanding its genesis and import. Such socio-cultural mechanics in turn popularized this term. The usage of 'Hindu' stayed put and is doing good till datum; c. 11th A.D., being the generally accepted date of birth. It glided to the position of being the most popular non-Sanskrit foreign description of all that was *Sanātana* (the highest involuntary contribution being that of the East India Kampanee Sarkar & British Dominion period's transactions). In context to our caption the Kakatiya man-made heritage belonged to the period whence the *sanātanis* were also well known as 'Hindus'. *Sanātana* naked eye positional astronomy is called '*Siddhānta Vijñāna*' (perennial sciences). The Kakatiya period science and technology can also be labeled as '*Hindu Vijñāna*' and as '*Vedic Vijñāna*' (plural sciences).

In *Siddhānta*, the constellation Orion (east\orient) is the cynosure. It was also on and often the platform for many a gigantic mathematical calculation pertaining to the overhead geom (involves algebra, trigonometry & geometry, c. 5-6th A.D.). The Kakatiyas followed 700 yrs later. They were also proutist and great patrons. Therefore, what we see is the *Vedic Vijñāna* in field archaeology parmatised as a celebration of the accumulated distillate of the then best of science & technology. It includes all branches of the sciences; technology; performing and liberal arts and also the physics of engineering. The field remains offer scope to validate and we have tried applying fuzzy logic. It has resulted in a never before set of interesting transpirations some of which are amazing. The datum of such permatisation is around c. 1210-30 A.D. This is also evidence-based science. All these are for the informed mind. The WIC is mankind's peerless heritage.

Telengana is a province of central India. *Vedic Vijñāna* - Engineering Heritage - History of Science – History of Technology as has been discussed in this treatise is in that province. Warangal in particular & Telengana, in general, have never been considered as a possible sterling bed volume from such perspectives. Its archaeology preserves the evidence that Science and technology were part and parcel of Hindu Philosophy and culture. The WIC/Warangal was a chosen site by the period-based minds in such parts of the world. It embeds the kathā of a few millennia, possibly in a continuum. These are 1st time unravels cum 1st time talk. Is nascent & green. A proper start; an approved methodology is even due. Multi-disciplinary approach and even multi-lateral involvement are warranted. Preliminary, topical, field surveys and related works are still on. Scholars (including all faculties) are invited and welcome to explore such perspectives without this author and/or with. By indicating all these we do not propose any revisionist theory nor any point or issue of-&-for acrimony nor any guile to remain in a circuit. Save & except a history of the sciences we have no other agenda. We only mean (i) validation studies due (ii) hello youths! This study is exploratory. Far from being exhaustive. Therefore, our considered conclusion is 'Troppo presto per qualsiasi conclusione vittoriosa'.

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Notes

NOTE- I: AUTHOR'S TALK ON 'WARANGAL IMPACT CRATER', DEPT. OF EARTHQUAKE ENGINEERING, III T-HYD., 11-9-2015.

NOTE-II: AUTHOR'S TALK. NATIONAL SEMINAR, 'RETRIEVING PEOPLES HISTORY OF TELANGANA – PARTICIPATION, PERCEPTION AND PROSPECTS', DR. B. R. A. O. UNIVERSITY, HYD., DEPT. OF HIST., 7TH & 8TH SEP-2015 (PRESENTED ON BOTH DAYS).

NOTE-III: THE ENTRY ENCLAVE AT WIC REMINISCENCES THE DESIGN AS AT AGRA (C. 1565) AND RED FORTS (C. 1648). THE MOHENJO-DARO (2600-1900 B.C.) HAD SECURITY TOWERS IN THE NORTH AND A HIGH WALL TO THE SOUTH. ALL THESE ARE MAN-MADE I.E., ENGINEERED DEVICES. MANU AND KAUTILYA ALSO CALL FOR ENGINEERED DEVICES. THE WIC IS NOT MANMADE. OUR THESIS IS THAT THE WIC WAS MADE BY MOTHER NATURE. SEE REF: BANNERJI (1885) & HARAPPA.COM (1995-23). THE LORD SRI-KRISHNA'S DOB AS PER DRIK PANCHANG IS 19TH JULY 3228 B.C.) AND KALI YUGA COMMENCED ON EARTH AT THE STROKE OF MIDNIGHT OF 17TH-18TH FEB. 3102 B.C., (ANCILLARY INFO).

NOTE -IV: NOW KNOWN AS 'QILA MUBARAK' AT BATHINDA, PUNJAB-INDIA, WAS ORIGINALLY MADE BY RAJA DAB (C. 90-110 BC) OF THE KUSHANA DYNASTY. IT TOO IS BRICK MAKING. IS ENGINEERED I.E., MANMADE HERITAGE STRUCTURE. THE WIC WAS MADE BY AN EARTH-METEORITE COLLISION.

NOTE -V: *Matsya Purāṇa* (c.200-500 B.C.) is the 1st among the *Purāṇas*. This commentary by the erudite (i.e., Pandit) Mitra Misra (c. 1605- 27) was commissioned under the patronage of *Virasingha*, the king of Orcha (MP, India) as minted by P. V. Kane, in '*History of Dharmasāstra*', (Poona: Bhandarkar Oriental Research Institute, 1975), Vol. I, Part II, p. 944. See also, W. C. Sandes, (1934). *The Military Engineer in India*, Vol. I. Chatham: Institution of Royal Engineers. Vol. II-1935 (for c. 1700 onwards).

NOTE -VI: In early middle Europe (c. 500-800 C. E.), especially in new Christianized regions like Saxony, the bishop's place was designed as 'fortress churches' (No Roman effect) and referred to as Domburg i.e., "cathedral castle" being common in Franconia, South France and Transylvania (Romania). Established to defend the Christian faith against successive Turkish invasions (Moslem). High contrast with the fortification rings and the WIC's historical buildings. https://en.wikipedia.org/wiki/Fortress_church

NOTE - VII: Geophysicists shall better explain the same to scholars of liberal sciences and heritage. Anomaly studies Due. Warranted.

NOTE - VIII The ring formation mechanics that have been hypothesed in this transaction may by and by lead to lovely and new understandings about shock wave propagation; boundary aspects; terrestrial matter and celestial energy interaction-relationships in rock strata, etc. These theoretical aspects of the WIC have also been discussed with Civil engineers of NIT Suratkal, Scholars of Earthquake engineering IIT-Hyderabad, and scholars from INTACH; history; geography & and geology (along with field visits). Anomaly study DUE.

NOTE-IX: The item has been taken down by the GSI post-publication of our paper. Possibly embedded\shifted. (consolidated?). Nevertheless, the image is available with us; and produced. The

Topo Sheet work had commenced during the British East India Company Sarkar period and was completed during the British Dominion period – a Product of ‘The Great Trigonometrical Survey of India 1802-71’.

NOTE - X: The human anthropomorphic figure associated with Orion in Hindu star charts is also known as ‘Ramappa’ a telengaa phonic acronym of co-jointed polysyllabic salutation denoting ‘his highness’ and a (near) synonym of ‘purushottama’!

NOTE - XI: Whereas, the regression of the angle is @ $90^0 - 60^0 - 45^0$ -& - 22.5^0 . Akasa lingam is for space computing. It is a scholarly device.

NOTE - XII: The masjid minarets (congress towers) were designed as a sign of segregation-less monotheism aimed at the 4 universal cardinals. At Kutab Minar the inter-revetments; and indentures of the gateway conjure the design-engineering of the *anurtha paaga* as are on the Kaktiya triumphal arches (vijaya torana). Indo-Islamic state-sponsored buildings pre to such datum do not!

NOTE - XIII: Kakatiya dynasty’s timeline was c. 1163-1320 Emperor Ganapati Deva c. 1262 as the high point (Mother tongue –Telegoo). A peaceful way of life (Islam) was forced inducted by Moslems (sequestering) onto old Deheli as the seat of the indo-Sultanate in c. 1206 by the Mamluk dynasty 1500 km by surface route from Warangal (temple construction c. 1250/60) which was Sanātana’s the then top-most Saiva seat. In between, there were constant counter-attacks by the Sanātana in the form of chaapaa maar i.e., guerrilla known as Harkat-e-mujahideen in Urdu and as Dharma yudha in Sanskrit (Buddhists abstaining). Hence, the otherwise diminutive ritual-related Kutub minar’s height was raised to 72 meters in c. 1368 by the Tughlaq as watch-&-warn tower i.e., naked eye visual radar (the then highest was Sri Jagannath’s at 65 mts; Sri Tathagat’s ~Bodh Gaya at 50 mts). Sri Narasimha Deva –I, c. 1238-64 A.D. (Ganga dynasty; Mother tongue -Telegoo) was in seat Kataka of empire Kalinga whence pan-into conjoined moslem confederation attacked Kalinga, that sanguinary battleground got the adage ‘Mughal maaree’ (E Medinipore, WB; c. 1243) and the victory structure Konarak c. 1245-55 A.D., (70 mts) was built, thereafter (Ref: Bhattacharya-d). At Mughal-maree, the Telegoos had participated almost to the last able-bodied (including regional Buddhists {mahayanees}). The magnificent kakatiya Vijaya torans (triumphal arches) were possibly erected to commemorate them. Konarak preceded Warangal. The Gangas (Kalinga; Vaishnavas) have not celebrated such buddy aspect in its state-sponsored art although a significant component of Sri Jagannath’s, Sri Gajapati’s rituals and applied terms (from dawn-to-dust) are Telangana, including drums (whereas, the kaktiyas belittled the Gangas). There is also a near absence of traces-&-influence of kakatiya art-architecture-engineering in the state-sponsored art of Kalinga of post c.1200 A.D., (thus arises a scholarly scope with new directions). Assuming the upper hand in Kakatiya’s official state-sponsored art is post the events of ‘mughal-maree’. In such Pan-India multi-centric tug-of-war(s) for ‘dominance-&-resistance’ the Khalji dynasty in c. 1320 captured and devastated Warangal during Prataprudra-II (c.1289\95-to-1323) being in Kakatiya seat. The belittled mighty Vaishnava Kalinga did not assist their Saiva cousins i.e., the Kakatiyas (!?). The unification of forces that was witnessed at Mughal-maree was conspicuous by absence. Such an infraction was not due to sectarian considerations. It was interpersonal (like Prithvi Raj Cowhan and Jaya Chandra; Siraj-ud-Daulah and Mir Jafar; etc.). Kakatiyas lost the war and slipped into oblivion (subsumed by the Gajapati empire and exploited too till c. 1514 {200 yrs}). The world lost Warangal (650 years of hiatus until ASI moved in). Islam metamorphosed into muscling cum muzzling Mussalman format (sequestering; popularly intonated as Moslem). It took firm roots in the sub-continent (Islam transpired off the Koran. Mussalman off Jihaad? think-is-a-socho).

NOTE - XIV: It is difficult to count out the pillars to the number 1000.

NOTE - XV: Larger than life size – igneous granite makes almost ½ the size of Bhojeswar Mahadev – red sandstone makes, as at Bhopal, MP.

NOTE - XVI: Pre to Islamic settlement there is no authentic report that the phrase Hanam-konda existed. We conjecture that it may have evolved out of the Turkish phone ‘hamam’ (bath) as the location has plentiful good quality aqua in the form of natural waterfalls. Turkish phone decomposed to colloquial telegoo? The waterfall is due to rifts which were created due to tectonic reasons.

- NOTE - XVII: Barnard's red loop is a string of old-decaying distant stars and imploding gases in parabolic form in the background of Orion (imaged by Hubble Telescope). From terrestrial eastern hemisphere locations to the naked eye (new moon period), it appears as if Ramappa\Kalapurusha is holding a blazing bow.
- NOTE - XVIII: The globe wobbles as it goes around the sun. The pole oscillates by an order of 23 degrees (from true to true W). Each complete cycle takes about 26000 yrs. = 1 epoch for Earth within the solar system. During 1/4th of this period, the blazing bow aspect is prominent from terrestrial locations of the eastern hemisphere.
- NOTE - XIX: Near similar base plans are also noted at Sonepur (right bank Mahanadi Valley, Odisha) in red sandstone Siva temples dated to between c. 800-1000 A.D., (other being at Sri Lingaraj; Chidambaram; Khajuraho; Sri Jagannath; etc., numerous near close examples). This alludes to the possibility that such a plinth plan was the preferred design for high-rise load structures, India-wide.
- NOTE - XX: From Egypt through Galileo's to present times in occident Star Charts the Orion is depicted as a hairy Hercules holding an arrow (no bow). And whereas, the bow is prominent among the Siddhantims so too is the twanged arrow (name: Pinaka). In either, non-nude.
- NOTE - XXI: Fig-20a and 20b curtsey Graham Hancock, Sharif Sakr {London} & Faiia {Cairo}, respectively acknowledged with love & care (15 yrs. ago they had visited, discussed, concurred).
- NOTE - XXII: As of 1880 the Warangal site was completely abandoned; full of shrubs and no settlements. Now it is overpopulated and also extensively tilled. The author visited in 2014; 15; 16 & 23. Ref: Dayal -1880 & Fig-11 c.
- NOTE - XIII: Such survey and excavation are due (also Geophysical anomaly studies due).
- NOTE - XIV: Historical Process: Castle\Fort shrines are noted in all sub-continent that experienced inter-faith marauding phenomena. The Jews were possibly the initiators in fortifying prayer/worship places to save self -&-faith from the non-forgiving Christians (terminus 1945, Auschwitz). The Christians built church castles that housed the Bible; The Cross and above all the Presbyter. These were 'temple forts' (mono & non-public, limitedly residential). Their opposite parties (pagans) were not left to the last man (c. 12th - 15th A.D., long period; save-and-except the Jews all were evangelized). The Jews abandoned their 'rashness' and adopted secrecy as a means and method to survive such an existential crisis (millennia+ long). Post the fall of Constantinople (c. 1453) militant Christianity saw a downturn and castles were built post such datum is noted to get more focused on the good things of life, with Christ coming next and even, never. From the Khyber through to Tibet and the sub-continent India the barbaric attacks of such marauders (resource garners for the Jihad efforts) had enthralled in exposing the unprotected centers of every faith (11th -12th A.D.). These shrines were open community centers. Interestingly, high\fortified walls came up post c. 1250 around all major mandirs (temples). These remain to date as 'Temple Forts' with the community living in the vicinity of the out. Thereafter, the Girjas-Masjids (Muslim-places) faced the counter and were given rings of high fence-walled fortification i.e., cantonments became the locus. The Muslim worship places shifted to forts, lock-stock-&-barrel i.e., up came forts with worship\protected faith centers (due to counter actions by non-Muslims). The scenario altered to 'fortified worship centers' i.e., shrines inside forts. Many examples of variable mechanics exist. The WIC was of none of the types or sub-types as it is a natural member. Historical process adopted it by moving into it. WIC offers a paradigm shift.
- NOTE - XXV: We have desisted from using the phone 'Hindu' as it is of Lama-Vajrayana etiology and came into usage post c.1000 A.D. And, in the Deccan (a) the settlements are not much of river valley type (b) least exchange with Lama lands. The Buddhist Avadana Literature is chaste Sanskrit of excellence. However, it is Theravada-Mahayana works. The avadana too does not have any indication about the phone or the people 'Hindu'. Only Lama - Vajrayana order (a militant Buddhist order that arose due to a long period of faith-based persecution). They were acutely anti-Sanātana.
- NOTE - XXVI: The Odia Bhasa-Kosa is possibly the next (Editor compiler: Binod Bihari Kanungo, Bhasa-kosa Lane, Katatka). This pen is a native of Odisha and a Sanātana (scion of the House of Siddhānta) stands dually advantaged. Utkala (nice locomotion); Kalinga (clever & cunning) wherein the lingua franca is Odia has transpired off Odra (riparian) is entirely independent of Sanskrit and in various

historical periods and geographic regions has been at the butt of the Sanskrit pundits who derided such linguistic independent school & country as 'pisacha vaasa & mlechha desa' i.e., goblin's language, non-sanskrit country (includes the Telenga desa).

NOTE - XXVI: [a] The Sanskrit pandita akhadas (erudite scholars of the self-gelling lingua-phone schools & collegiums viz., the ancestors of this pen) termed them as Bhutia (goblins\ghosts); Cheena (slit-eyed &\or split personages); Kusana (grasslander or ruminants\grazers); Yavana (bacteria\phagocitiser); etc. Till datum, I have realized how Sanātana hit back. Whereas, for the same-faith adherents among such ethnic groups the term 'Nepal' (a Sanskrit acronym of 2 monosyllables) was the choice learned reserve (amazing deviation). The phone 'Nepal' denotes and connotes 'peerless &\or unflinching protector'. Country 'Nepal' then works as 'the protector'. Sanskrit permits polyphasic applications and interpretations with ease & and élan while simultaneously fobbing in style any eagle glare or correct critical assessment by the scholars of the opposing schools. Sanskrit has used the academic space to size up the opponents and shore up the buddy as a case of 'pen is mightier than the sword'. This is an Indian phenomenon ranging millennia(s). It is a historical process in-continuum of the intangible kind. Sanskrit enables multi-layered steganography with absolute brevity (no language is of any match). It is the spymaster and space-communication language of the upcoming times.

[b] One of the akhada gurus (Gymnasium leaders) was Sri Sambhoo Kara Vajpayee (c.15th A.D.) and it is said (sruti) that he was a dhyana akhada (learning gymnasium) with Pacheesi i.e., Pasa (game of Dice) as past time; transaction being solely in Sanskrit. Sri Sambhoo (along with this pen's ancestor as a peer) were natives on the right bank of river Kusabhadra (now known as) village Danda Mukunda Pura (E), District-Puri. Dice is a popular geriatric game in the Puri district, Odisha-India. It up-regulates poise and balance between the body-&the the mind. It also is a spymaster's game. Another profile ancestor of this pen and a peer of c. 15th was Sri Sarbavauma Bhattacharya. Vajpayee left for Kashi and Bhattacharya arrived at Puri from Kathmandu. Bhatta's roots were partly in Bihar and part in Ahom (Assam). He was a core member of the Guroo-kulam of the Nepal Naresh (Sri Pasupatinath's presbyter). He was not a Sanskrit pandit (bright contrast with Vajpayee). He was a Nepalese! Since the Moslems were bearing down upon all Sanātana shrines the Nepal Naresh (ultimate theological head of Sri Jagannath Temple – continues) appointed Sri Bhattacharya (a member of his Gurookul) as the 'veetar-ch-mahaptra' (VIP of the inner precincts) of Sri Jagannath Temple (highest seat of Sanātana). This VIP organized a unique defense mechanism for the Lord, his shrine – converted Sri-Khetra into a booby-trap cantonment. Thus, earned the (deriding) call name 'Nepalee-bhatta' & 'Basoo bhatta' for he was a vedantim saiva with Taurus asterism and was non-supportive of monastic way of life (like any Gurkha), made Sri Balabhadra as the owner cum principal deity of Sri Mandira and goddess Bimala as the principal consort {altered the rituals}. Our moot point is that in existential crisis hour Sanātana sought the Nepalese.

[c] It is amazing to note that the British Crown over the centuries spent millions of Pounds for & after the Gurkhas (peerless sentinel) yet did not spend a farthing in evangelizing. It is disturbing to note that during the last 3 decades Petro Dollars and now additionally Drug Dollars have been causing conversion & the new thing being 'arms Dollars'. Money mutilates? Sanātana's peerless protector & his family are under fiscal stress.