



ADRISHYA VIMAAN: THE ANCIENT TECHNOLOGIES ENCOMPASSED IN ANCIENT VIMAAN SHASTRA BY BHARADWAJ

Dr.Madhuri Sharon, Anuradha Pandey Dubey

Parishkar College of Global Excellence (Autonomous), Mansarovar, Shipra Path, Jaipur, 302020. Rajasthan, India
Vedic Vigyanam Explorer Society, House No. 254 Sector-3, Urban Estate Kurukshetra, Pin-136118, Haryana- India

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ABSTRACT

In this article we are introducing the dual Nature of Vaimaanik/aeronautical technology, the foundations of Drishya and Adrishya (Visible and Invisible). This technology involved considerations of (a) Structural materials and alloys used e.g., Rohinee, Tamogarbha etc. (b) Propulsion systems and mechanical components (which may or may not vary in the two types of Vimaan) (c) use of required optical devices: mirrors, lenses, and energy reflectors, and (d) Navigation tools and visual interfaces for decision making in the apt time.

KEY WORDS: Adrishya, Drishya, Stealth, Paroksha, Aparoksha, Goodha, Vimaan

1.0 INTRODUCTION

Maharshi Bharadwaj's Vimaan Shastra describes almost all aspects of an aircraft and its functioning. In this book of aeronautical technologies, *Drishya*, and *Adrishya* a highly advanced technology is a must for the *Rahasyodhikari* or pilot of that era to know. In the first chapter it says:

"A pilot or *Rahasyodhikari* must have training in using *Mantriki* and *Tantriki*, *Kritaka* and *Antaraalaka*, *Goodha* or *hidden*, *Drishya* and *Adrishya* or seen and unseen, *Paroksha* and *Aparoksha*, contraction and expansion, changing shape, look frightening, look pleasing, become luminous or enveloped in darkness, *Pralaya* or deluge, *Vimukha*, *Tara*, stun by thunderous din, jump, move zig-zag like serpent, *Chapala*, face all sides, hear distant sounds, take pictures, know enemy maneuvers, know direction of enemy approach, *Stabdhaka* or paralyze, and *Karshana* or exercise magnetic pull; while flying."

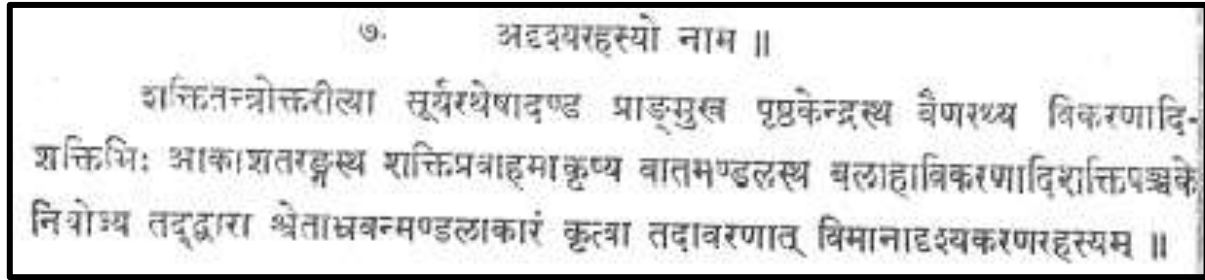
This directive emphasizes that the pilot must have training in *Mantriki*, *Tantriki*, *Kritaka* and *Antaraalaka*, *Goodha* (hidden), *Drishya* and *Adrishya* (seen and unseen, *Paroksha* and *Aparoksha*, contraction and expansion, changing shape, appear frightening or pleasing, become luminous or enveloped in darkness, deluge or *Pralaya*, *Vimukha*, *Tara*, stun by thunderous din, jump, move zig-zag like serpent, *Chapala*, face all sides, hear distant sounds, take pictures, know enemy maneuvers, know direction of enemy approach, *Stabdhaka* or paralyze, and *Karshana* or exercise magnetic pull.

2.0 DRISHYA TECHNOLOGIES: A PERCEPTIBLE INSTRUMENT OF FLIGHT

Drishya Karana (Visibility Technology) refers to making a Vimaan visible or even projecting deceptive pictures, such as decoys or holograms when needed. The theory is that the mechanisms used to conceal a Vimaan may be reversed. The term could also refer to making the Vimaan look like something else (camouflage). Thus, word *Drishya* does not encompass meaning of only being visible but also includes creating a visible, *Maya Vimaan*. Such *Drishya*: is created by collision of the electric power and wind power in the atmosphere, to create a glow, whose reflection is to be caught in the *Vishwa-Kriya-Darpana* or mirror at the front of the Vimaan, and by its manipulation produce a *Maaya-Vimaan* or camouflaged Vimaan.

3.0 ADRISHYA TECHNOLOGIES: HIDDEN MECHANISMS USING SUBTLE FORCES

Adrishya: "*Shaktitantra*", explains that by means of the *Vynarathya Vikarana* and other energies present in the center of the solar mass, attract the force of the ethereal flow in the sky, and mingle it with the *Balaahaavikarana shakti* in the aerial globe, producing thereby a white cover, which will make the Vimaan invisible. Following sutra described in Vimaan Shastra mentions these energies.



Meaning - Invisibility: according to the study of energy extraction (electricity through wires), by means of the modification of elements in air useful for flying chariots and modification of other forces/energies from the centre of sun, extracting the force from outside earth passing through space and sky, and mingle it with the dense thick air and modifying its energies by extracting in the aerial globe, produces thereby a White-cover which will make the Vimaan invisible.

Interpretation: It explains the technology to make a Vimaan invisible by enveloping it in white sphere kind of projection. It explains energy extraction and modification of elements in air for energy. An interesting thing mentioned is sun's energy extraction, which may be similar to solar panels or maybe more advanced than contemporary technologists. However, the advancement in modern technology may not be up to the high range of ancient's and is lagging in many areas.

3.1 Technologies That Supports *Drishya & Adrishya* Functioning

In Vimaan shastra, there is mention of other technical systems that supports the functioning of *Drishya & Adrishya* e.g.:

Paroksha: According to "*Meghotpatti-prakarana*," (the science of the birth of clouds), by entering the second of the summer cloud layers, and attracting the power therein with the *Shaktyakarshan Darpana* or force-attraction mirror in the Vimaan, and applying it to the *Parivesha* or halo of the Vimaan, a paralyzing force is generated, and enemy Vimaans are paralyzed and made inert.

Aparoksha: As explained in "*Shakti-tantra*" is technique to project the *Rohinee* beam of light, that makes object in front of the Vimaan visible.

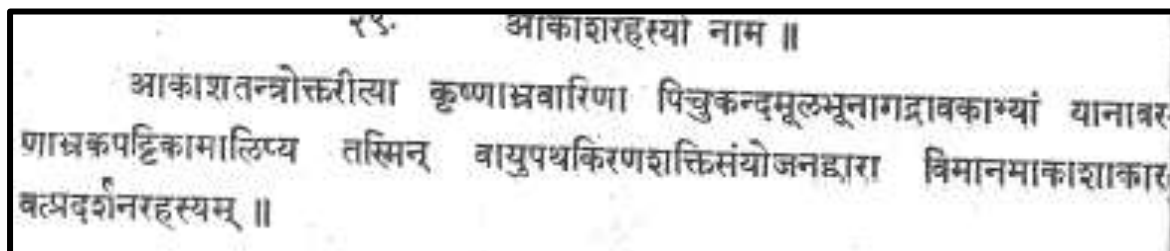
Goodha Means Hidden, Concealed Flight, and/or Invisibility. According to *Vayutatva-Prakarana*, describes that by harnessing certain powers in the "8th atmospheric layer" over Earth, "the dark content of the solar ray" is attracted and used to hide the Vimana from the enemy.

3.2 Yantra, Mantra, and Tantra - Symbolic Interfaces of Controlling The Functioning of Invisibility

Invisibility of Vimaan is achieved by (i) *Adrishya Karana* or Invisibility cloaking and vibrational shielding. (ii) Through etheric energy harnessing and subtle fuel systems. (iii) By controlling the anti-gravity and levitation principles. (iv) May be using AI technology i.e. by thought-responsive controls and psychic interfaces, such as Mantra, Tantra, and Yantra as symbolic interfaces of control.

Here role of (i) Sacred geometry and symbolic inscriptions, (ii) Integration of mantras for activation and modulation. Depending on Yuga different types of propulsion technology was used for Vimaan, e.g. during Treta Yuga Vimaan functioned using Mantra and thought power (iii) Tantric harmonization of pilot consciousness with air-craft used in Dwapar Yuga. Whereas for Kali Yuga, Yantra or devices powered Vimaans were predicted by Maharshi Bharadwaj are envisaged, which takes us to a journey through optical, energetic, and symbolic engineering.

3.3 Materials Used as Described in *Akash Rahasya*



Meaning - Sky like appearance: according to Sky-techniques or sky-devices, by mixing Black-Mica solution with Neem and Bhoonaaga or earth-snake decoctions and smearing the solution on the outer body of the Vimaan made of mica plates, and exposing to solar rays, the plane will disappear and look like the sky and become invisible appearing like the sky.



Interpretation: The chemicals or materials described in this shloka maybe producing a sky-blue color solution which when applied on Vimaan its blue like sky like color makes Vimaan disappear or get un-noticed.

There must have been a special device which can make this solution spread all over the Vimaan, which could be possible if there are any tiny openings all over the surface of Vimaan connecting to the produced chemical solution inside Vimaan.

So far as alloys & materials used for Vimaan body and devices were having Light-weight as well as radiation absorption properties. There is mention of metals and alloys that are very light and strong and can withstand high pressure. Some accounts claim that certain alloys could absorb light (or are such that light does not reflect much) so that visibility is reduced. C.S.R. Prabhu in his unpublished work, has claimed making an alloy based on technique described in Viman Shastra, that can absorb $\approx 80\%$ of light, which could have stealth applications (reduce visibility or radar detection).

3.4 Devices Used for Inducing Invisibility

Two major devices are mentioned in Vimaan shastra for this purpose:

- (i) By manipulating light using *Darpana* or mirror, "force attraction mirrors", lenses, possibly photographic yantras, etc., to control reflection, glow, illusions. The *Drishya* / *Adrishya* / *Goodha* abilities mention mirrors, light, dark rays, etc. *Adrishya Karana* or Stealth/Cloaking Technology mentioned in the Vimaan Shastra describes a mechanism for making a vimana invisible. This is supposed to be accomplished through the use of: special mirrors or crystals known as "*Guha-garbhadarshan*" or "*Pinjula* mirror"; light-manipulating gadgets, certain plants, or chemicals to modify visibility etc.
- (ii) Radar / Modern Detection system claims that certain materials inspired by the text might be "radar defying" or "radar absorbing" or making object invisible to radar. For example, the "Stealth bomber from shastra" project carried out by Benaras Hindu University referenced in public media: a glass like material that allegedly cannot be detected by radar when coated on an aircraft. Some versions mention "smoke" or "energy" fields that distort light or render the craft undetected. The Vimaan's invisibility extends beyond optical to radar and detection, aligning with modern electromagnetic stealth techniques.

Vishwa Kriyaa Darpana or mirror of outside views, works by extracting electricity through wind force by collision on Vimaan while traveling. This may indicate similarity to modern Magneto hydrodynamic generator. This electricity is used for projection through Projector which creates a Holographic 3D image in the sky or cloaking. The device used is *Vishwa Kriya Darpana*, which could be understood as universal action operation or projection. Further investigation is needed.

4.0 VIMAANS HAVING DRISHYA/ADRISHYA FEATURES

The *Vaimānika Śāstra*, a text composed in the early twentieth century by Pandit Subbaraya Shastry describes several types of ancient Indian aircraft known as vimanas. Among these are the *Shakuna*, *Sundara*, *Rukma*, and *Tripura* vimanas—each presented as mechanically engineered flying machines equipped with metals, propulsion systems, mirrors, and even invisibility mechanisms. When compared with authentic ancient Indian literature, the difference becomes clear. The *Rigveda* describes only the divine chariots for gods such as Indra and Vayu, using poetic imagery rather than technical details but through the eyes of a scientist these vehicles are not only symbolic but are mechanical machines. In the *Ramayana*, the famous *Pushpaka Vimana* though appears as a magical aerial chariot was capable of flight and size alteration, Its operation was governed by divine will or should we say thought-powered action, rather than physical principles but Vaimanik shastra throws light on the engineering part of it. Also, The *Samarangan Sutra Dhara*, a 11th-century text attributed to King Bhoja, is the only early Sanskrit work to offer something resembling technical descriptions of flight. It briefly mentions machines powered by mercury and fire, though the details are few and incomplete, they are largely symbolic.

The *Vaimanik Śāstra* represents a modern attempt to reinterpret the so-called mythic concepts as engineering reality- stealth technology, radar technology was used in ancient times as the texts speaks volumes about the *Tamogarbha Yantra*, *Guha Garbha Yantra*, *Rohinee Darpan* (causing the color of the Vimaan to change), *Viroopa Karana* (making the Vimaan blend with sky) etc. Different types of Yantras, Manis and Darpana designed for making the Vimaan visible (*Drishya*) and invisible (*Adrishya*) are well elucidated in Vaimanik shastra texts.

5.0 MODERN REFLECTIONS AND QUANTUM PARALLEL

It is interesting to survey how *Adrishya* technology aligns with contemporary quantum field theory, dark matter, or consciousness studies, symbolic resonance with nanotechnology and subtle energy research. Bridging the ancient Indian wisdom with modern imagination and technologies are evolving as an interesting field. Ideas of *Drishya* and *Adrishya* encompassed in Vimaan Shastra have shown some parallels in modern technology (Table 1).

**Table – 1: Some Similarities Between the Drishya & Adrishya Technologies of Ancient Vimaan and Contemporary Stealth Technology**

ANCIENT CONCEPT	MODERN EQUIVALENT
<i>Adrishya Karana</i>	Stealth technology (Radar evasion, Cloaking)
<i>Guha-Garbha Darshan mirror</i>	Adaptive optics, stealth coatings
<i>Pinjula mirror</i>	Light-bending materials (metamaterials)
<i>Herb/smoke cloaking</i>	Electronic counter-measures, decoys

Here are some of the modern scientific works done on Cloaking / Stealth / Metamaterials; though they are not related directly to ancient texts, but which show what invisibility, cloaking mean in contemporary physics and engineering. They help provide a benchmark to compare them with the technologies described in Vimaan Shastra (Table 2.)

Table -2: Scientific Work on Cloaking / Stealth / Metamaterials; and their Relevance to Vimaan Shastra Based Concepts

References of Modern Work	Key Idea / Findings	Relevance to Vimaan Shastra
Cai, et al. 2007; [1] <i>Optical cloaking with metamaterials —</i>	Designs for “non-magnetic cloak operating at optical frequencies” using metamaterials. Allows macroscopic (larger than wavelength) objects to be “invisible” to certain wavelengths.	Shows that invisibility is possible via precisely engineered materials and structure, but with many limitations (bandwidth, angle, losses). Much more concrete and physically defined than Vimaan’s descriptions.
Smolyaninov et al (2009). <i>Anisotropic Metamaterials Emulated by Tapered Waveguides: Application to Optical Cloaking.</i>	It shows that metamaterial devices can be emulated via specially designed waveguides, achieving cloaking / reduction of scattering in visible frequency range for larger objects.	Demonstrates modern feasibility. Underlines that concepts like “mirrors, light manipulation” do have real analogues, but require detailed control over electromagnetic properties.
Rainwater et al (2012). <i>Experimental Verification of 3D Plasmonic Cloaking in Free-Space.</i>	Demonstrated that one can suppress microwave scattering from a 3D object using “plasmonic cloaking” for certain incidence angles etc.	This is a “proof of concept” of cloaking. Shows real objects can be “made less visible” to certain detectors. But this is within modern experimental frameworks; ancient claims are more general and less physically specific.

Work mentioned in Table 2 were incentive for some modern scientists to try to link and compare the strength and weaknesses of technologies of ancient Vimaan Shastra with aerospace or stealth tech. (Table -3 & 4)

Table – 3. Efforts to Explain the Ancient Vimaan Technologies through the Lens of Modern Science

Requirement for Modern Stealth / Cloaking / Aeronautic Concealment	What Vimaan Shastra Claims / Descriptions	Gaps / Challenges Assessment Through present day technology
Precise control over material electromagnetic properties (permittivity, permeability, absorption, reflection, directionality)	Vimaan Shastra talks about mirrors, alloys, certain metals, herbal mixtures, “dark solar rays”, etc. (<i>About which present day knowledge is limited</i>)	But no quantitative data: wavelengths, refractive indices, coatings, consistency. Terms are mystical rather than engineering-specification.
Proper aerodynamic design (shape, weight, lift, thrust, structural integrity)	The Vimaan Shastra describes different types of Vimaans, sizes, some metal alloys, propulsion by “vortex engines” with mercury etc.	IISc study found that the shapes are often aerodynamically impossible or inefficient; no credible specification of lift equations, thrust, stability etc.
Power and energy source able to drive invisibility/cloaking or stealth features (e.g. generating fields, lighting, smoke, energy for mirrors or shrouds)	Claims of using solar rays, some sort of “ethereal flows,” mercury vortex engines etc.	No clear mechanism or energy budget; energy to do real cloaking is high; no real specification of how to control glare, angles, spectral bandwidth, etc.
Operational constraints (angle of view, wavelength ranges, durability, environmental factors)	Vimaan Shastra is vague to modern scientists; often implies omnidirectional invisibility or concealment — “goodha” etc., but doesn’t discuss weather, dust, angle, frequency etc.	Modern cloaking is often narrowband (works only for certain frequencies), limited angles, etc. Shastra’s claims do not address those issues.

**Table -4: Comparison Between Requirements for Modern Stealth vs Approaches of Vimaan Shastra**

Requirement / Parameter	Modern Need / Values	What Vimaan Shastra Provides	Gap / Feasibility
Radar Cross Section (RCS)	For strong stealth, RCS needs to be extremely small (fractions of a square metre, down to $\sim 0.001 \text{ m}^2$ or less, depending on radar frequency, angle).	No explicit RCS. Text doesn't quantify how "invisible" Vimaan would appear in modern detection terms.	Big gap: without knowing RCS or equivalent measure, we can't judge how stealthy as per modern standard.
Size & Shape	Shape matters a lot: flying-wings, smooth curves, faceted surfaces (to deflect radar), minimal protrusions.	Tripura Vimana gives dimensions as ($\sim 100 \times 24 \times 30 \text{ ft}$). Shape as oval with certain geometries; And circular or rectangular base e.	Moderate gap: some dimensions are plausible, but the shape descriptions are vague; no mention of modern stealth- shaping like edge alignment, intake shaping etc.
Weight / Mass	Must be compatible with lift, thrust, structural integrity. Modern stealth aircraft have large mass, powerful engines, special materials; know the weight so that engines, lift, fuel etc are matched.	Vimaan Shastra does not give weight; units of mass are missing; no performance data such as speed, load limits, power or lift calculations are available.	Significant gap: without weight you cannot evaluate whether a design can fly, let alone hide.
Materials / Coatings	Modern RAM, composite materials, special alloys with defined properties (reflectivity, absorption, strength, heat resistance).	Text mentions alloys, metals, fire-resistance, lightness. Some kinds of cloth ("milk cloth") to prevent water ingress. But the metallurgical descriptions are vague; no known modern material equivalents given in detail.	Partial overlap: the idea of special alloys is there, but the necessary material science precision is not.
Power / Propulsion / Stealth Mechanisms	Engines with low IR signatures, exhaust shaping, minimal protrusions (for radar/visual), maybe active stealth, etc. Must handle lift, drag, energy demands.	Vimaanika Shastra mentions generators using sun's rays, acids, "vortex" engines, etc. But no specific numbers (horsepower, energy/hour, fuel consumption) are given.	Very large gap: modern stealth requires detailed engineering; ancient descriptions are speculative, metaphorical, or symbolic.

Table 3 and 4 elaborate on the knowledge and methodologies associated with Vimaan shastra, highlighting multiple gaps and challenges that arise primarily from the absence of comprehensive ancient texts of India and the Vedas. It is crucial to acknowledge that what is currently available represents merely 20 to 30 percent of the ancient knowledge that has been revived. The ancient texts allude to an extensive body of work, encompassing approximately 1,180,000 verses across 1,131 recensions of the Vedas; however, only a small proportion of this literature, chiefly comprising the four traditional Samhitas—Rig, Yajur, Sama, and Atharva—has survived in its entirety. Additional corpus elements, such as the Brahmanas, Aranyakas, and Upanishads, exist only in partial forms, while the specialized knowledge encapsulated within the 18 vidyas and 64 kalas is largely preserved in fragmentary elements. This substantial loss of ancient texts presents significant hurdles in fully comprehending the intricate knowledge embedded in Vimaan shastra.

6.0 CONCLUDING REMARK

To understand the modern concept of Stealth and ancient Adrishya technology, through the present day understanding creates many major blocks. The concepts of "Drishya" (visible) and "Adrishya" (invisible) stealth technology that emerged in ancient Indian Vimaan Shastra, a Sanskrit treatise though discusses superior aviation technology employed by ancient Indian gods and sages., But



it's scientific validity and scientific quality remains dubious to present day technologists. It does explain principles that are similar to modern stealth or cloaking technology under mystical or alchemical language.

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