

BISHNUPUR: THE CITY OF TERRACOTA

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ABSTRACT

Terracotta (Italian for "baked earth") is a type of earthenware made from natural, iron-rich clay mixed with sand, formed into shapes, and then fired in a kiln, giving it a characteristic reddish-brown colour and porous, durable finish used for everything from pots and tiles to sculptures and pipes. Terracotta is a saturated orange-brown colour reminiscent of fired clay, lending it a warm, earthy quality. It intersects with red and yellow on the colour wheel, giving it a bright summertime feeling.

KEYWORDS: clay, baked earth, terracotta.

History: Mother Nature has bestowed upon us countless blessings. However, it is nothing but our sheer ignorance that has made us deprived of acknowledging such precious blessings, and Terracotta is one of them. This primeval art form is one of the foremost expressions of the imagination. As per the Hindu religious beliefs, due to the integration of five elements encompassing earth, fire, ether, water and air, auspiciousness is embedded in the foundation of this marvel element. The history of this natural element goes back to the era of Indus Valley Civilization that remained prevalent from 3300 to 1700 BC. The exquisiteness of Terracotta can be grasped from the fact that a myriad of prehistoric Terracotta artefacts had been discovered in India, mainly in the form of

deities. Bishnupur is a town located in the Bankura district of West Bengal. The town is famous for the terracotta temples made from the locally available laterite stones. Bishnupur gets its name from Lord Vishnu, the deity of the Vaishnavite Malla Kings who ruled it. Bishnupur, West Bengal, is famous for its exquisite Terracotta Temples, showcasing intricate carvings from the Malla Dynasty, alongside its rich heritage of traditional crafts like Baluchari sarees (narrating myths) and Dhokra/Terracotta artefacts, making it a hub for art, history, and culture in Bengal. Key sites include the unique Rasmancha and Jor Bangla Temple, representing unique Bengal architecture.

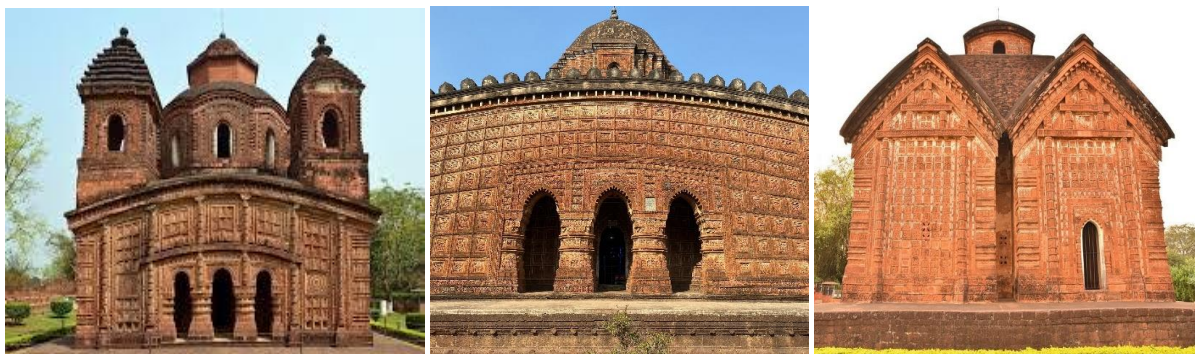


Figure 1: Terracotta roof top Bishnupur.

Highlights

- **Terracotta Temples:** Pyramidal structures like Shyam Ray, Madanmohan, and Jor Bangla Temple, known for their detailed clay-brick artistry depicting legends.
- **Jor Bangla Temple:** Distinctive double-roofed structure with rich terracotta work.
- **Madan Mohan Temple:** Features detailed carvings from the Mahabharata and Krishna Leela.

In essence, Bishnupur is a cultural treasure trove, a "Temple Town" famed for its earthy art and traditional textiles.

Terracotta art is an ancient craft using iron-rich clay, fired to create durable, porous pottery, sculptures, and decorative items, known for its characteristic reddish-brown "baked earth" colour (from Italian terra cotta). It's one of humanity's oldest art forms, used globally for everything from religious figures and household vessels to architectural elements, with vibrant traditions in India, Greece, and China.

- **Material:** A specific type of porous clay, often mixed with sand that yields a distinct brownish-red hue after firing.
- **Process:** Clay is moulded (by hand, wheel, or mould), dried, and then fired in a kiln or pit, usually around 1000°C, which hardens it.

- **Appearance:** Typically unglazed, showing natural colours like reddish-brown, orange, yellow, grey, or pink.
- **Uses:** Versatile for sculptures (figurines, deities), functional items (pots, lamps, pipes), and architectural decoration (tiles, panels).
- **History:** Found in ancient civilizations like the Indus Valley, Mesopotamia, Greece, and China, with significant historical finds in India dating back to the Mauryan era.
Examples in India:
 - **West Bengal:** Known for intricate temple carvings, dolls, and horses.
 - **Gujarat:** Features hand-painted pots with geometric designs reminiscent of the Indus Valley.
 - **Bihar:** A rich tradition of human, animal, and intricate sculptures from local clays.
 - **Tamil Nadu:** Famous for terracotta horses associated with village deities.

Terracotta art serves utilitarian and decorative purposes, reflecting diverse cultures, daily life, and religious beliefs through its earthy beauty and enduring form, say. Moreover, Terracotta vessels have been unearthed from Archaeological excavations at Harappa civilization, Mohenjodaro, and many more. For instance, Terracotta figures including the dancing lady and squatting yaksha imitate the continuity related to the realistic style that existed in the Maurya dynasty's capital during 322–185 BCE in Pataliputra.



Figure 2: Bankura-Bishnupur map.

Terracotta has remained an integral aspect of homemade art and pottery. States like Gujarat and Rajasthan have earned a distinctive reputation in the area of handmade art and pottery due to hand-painted exotic white terracotta jars. Madhya Pradesh is yet another state to captivate the attention of the admirers of embroidered terracotta rooftops. Terracotta is an inspired expression of the Cultural Revolution. From the rustic earthen pots

meant to store water to the exotic kitchenware exhibiting an elegant contemporary vibe. Terracotta is an element indulged in self-expression in a vivid manner to translate its originality into fine pieces of art. Terracotta kitchenware has managed to survive the test of time.

Clay is the natural, raw material (earthy, plastic substance), while terracotta is a specific type of clay

(iron-rich, reddish) that has been molded and fired ("baked earth"), making it hard, durable, and porous, used for pots, tiles, and sculptures. Think of clay as flour, and terracotta as a baked cookie made from that specific type of clay; clay is the general ingredient, terracotta is the finished, fired product with a distinct look and properties.

Clay (The Raw Material)

- Definition: A fine-grained natural material from weathered rock, soft and pliable when wet, used as the base for ceramics.
- Types: Many kinds exist (e.g., kaolin, stoneware, earthenware), varying in colour, texture, and firing needs.
- State: Can be raw, wet, air-dried (like modelling clay), or fired.

Terracotta (The Product)

- Definition: Italian for "baked earth," its iron-rich clay fired at lower temperatures, creating a durable, porous, reddish-brown ceramic.
- Composition: Earthy clay with high iron content, giving it that signature colour.
- Properties: Porous (breathes, absorbs water), sturdy, rustic look, great for outdoor planters and tiles.
- Process: Clay is shaped, dried, and then fired in a kiln to harden it.

Key Differences Summarized

1. Clay: Raw material; Terracotta: Fired product.
2. Clay: General term; Terracotta: Specific reddish-brown clay type.
3. Clay: Can be soft/wet; Terracotta: Hard, durable, finished ceramic.

Terracotta Kitchen wares: For a prestigious kitchenware brand like Elementary, designing great products merely is not sufficient; it strives to inspire diversified lifestyles. Shaped with ethnicity, it seeks inspiration from the old-age traditions while embracing contemporary design sensibilities. Be it any piece of kitchenware; expect nothing but a sustainable handmade art that assumes the highest responsibility of your food safety. Since its inception so far, it has remained indulged in being appreciative of handmade artistry, and Elementary kitchenware collection is nothing but an

extension of its own authentic personality inspired from sustainable handmade artistic expression. It is time to turn to our roots for our own betterment by appreciating an exhaustive range of terracotta collection offered by Elementary and thereby investing in that.

Natural inspiration is an integral part of every single Indian household, no matter in what form. From Terracotta water pots to roof tiles, this wonderful piece of nature is reminiscent of age-old traditional wisdom passed on from one generation to another. By dwelling deep into the times gone by, Elementary is committed to reviving the natural marvels. Its Terracotta range is indeed a candid endeavour to put forward the exquisite marvelousness embedded with striking artistry that leaves you wanting more.

Terracotta, also known as terra cotta or terra-cotta (Italian: [terra'kotta]; lit. 'baked earth'; from Latin terra cocta 'cooked earth'), is a clay-based non-vitreous ceramic fired at relatively low temperatures. Terracotta is found across India, from ancient Indus Valley sites like Mohenjodaro to modern craft villages, with major centres in West Bengal (Bishnupur temples, Bankura horses), Madhya Pradesh (Bastar tribal art), Bihar (ancient Mauryan sculptures), Assam (Asharikandi), Gujarat (hand-painted items), and Tamil Nadu (Aiyanar figures). It's a widespread tradition, evident in historical ruins, religious artifacts, and everyday household items.

- West Bengal: Famous for its terracotta temples in Bishnupur, intricate panels, and the iconic Bankura Horses. Chandraketurgh yields significant ancient figurines and plaques.
- Madhya Pradesh: The tribal belt of Bastar produces vibrant animal figures and statues.
- Bihar: Known for ancient terracotta art from the Mauryan period, using local clays like Ram-Ras Mitti.
- Asharikandi: Assam: in the Dhubri district is a large cluster known for pottery and terracotta.
- Gundale: Gujarat: in Kutch is known for hand-painted pots with geometric designs.
- Mula Village: Rajasthan: specializes in terracotta idols on flat surfaces (Mula Mortia).
- Tamil Nadu: Features large terracotta figures associated with the Aiyanar Cult.



Figure 3: Bankura Horses/Elephant.

Historical Significance

- **Indus Valley Civilization:** Terracotta toys, seals, and figurines date back to 7,000 BCE from sites like Mohenjodaro and Banawali (where a terracotta plough was found).
- **Mauryan Era:** Bihar shows strong evidence of this craft from this period. Terracotta is a living tradition, found everywhere from archaeological digs to contemporary homes, used for everything from roof tiles and kitchenware to elaborate art.

Terracotta's origin in India is ancient, deeply rooted in the **Indus Valley Civilization (c. 3300–1300 BCE)**, where it was used for seals, figurines (like the Mother Goddess), toys, and utilitarian items, continuing through the Mauryan, Shunga, and Gupta periods, evolving from simple forms to sophisticated art for religious and daily purposes, flourishing across regions like Bengal, Andhra, and Bihar.

- **Indus Valley Civilization (Harappan):** Early mastery seen in figurines (animals, mother goddesses), seals, and pottery from sites like Harappa, Mohenjodaro, and Mehrgarh, showing spiritual and trade uses.
- **Mauryan Period (c. 324-187 BCE):** Flourished with Mother Goddess figurines, often using moulds, reflecting cultural exchanges.
- **Shunga Period (c. 185-73 BCE):** Technique advanced with single moulds for whole figures, producing vibrant colours.
- **Gupta Period (c. 320-550 CE):** Terracotta art adorned temples, showcasing intricate sculptures.
- **Regional Flourishing:** Tradition continued with unique styles, such as the roof tiles of Bishnupur temples in Bengal and folk art in Bihar.

Uses

1. **Spirituality:** Deities, mother goddesses, ritualistic items.
2. **Utility:** Pots, containers, kitchenware, roof tiles, seals.
3. **Toys & Decor:** Figurines, decorative objects.

Terracotta in India isn't just pottery; it's a living, evolving art form showcasing spirituality, daily life, and continuous innovation from prehistoric times to the present. Terracotta originates literally from the Italian translation: 'baked' or 'cooked earth'. In other words, this word was borrowed from Italian vocabulary: terra ("earth") + cotta ("baked"). Terracotta clays are often rich in iron and are made from a type of porous clay.

However terracotta pots are porous and this causes a number of problems, predominately water will soak through the pot or urn unless it is sealed and waterproofed. This means terracotta pots dry out fast and always require frequent watering. Terracotta, or fired clay, is a popular material for gardening pots due to its natural, earthy aesthetic and excellent drainage

properties. However, this very same material can also be susceptible to cracking, especially when exposed to the elements during the monsoon season. It is difficult to trace the origin and development of this ageless folk votive terracotta but the earliest terracotta art traditions in India can be traced in India can be traced back to the Indus Valley Civilization about 2500 B.C. It has preserved itself ever since as one of the. Molela is a small, nondescript village in the Rajsamand district of Rajasthan, situated on the banks of the river Banas. It is famous for terracotta. The distinction here lies in the terracotta plaques made here, only here all over India. Mesopotamia: the origin of terracotta tiles and Western civilization. The origin of terracotta as a building material (like the origin of almost everything else) is believed to have been in Mesopotamia. One of the most appealing aspects of terracotta tiles is their durability. They can last anywhere from fifty years to one hundred and, in some cases, even longer. This impressive longevity is mainly due to the firing temperature at which it is constructed. One of the biggest cons is that they can be easily damaged if exposed to moisture or extreme temperatures. Over time, they can become cracked and worn, which can make them difficult to maintain and keep clean. Additionally, terracotta is typically more expensive than other types of flooring materials.

Terracotta offers natural, earthy beauty, eco-friendliness, durability, and good breathability (great for plants), but its main drawbacks are high porosity (staining, water absorption), fragility (cracking), weight (roofing), and higher maintenance requiring sealing to prevent issues like algae or liquid damage. It's versatile for rustic decor, planters, and roofs, yet needs careful installation and sealing to manage moisture and prevent breakage, especially in cold climates.

Pros

- **Natural Aesthetics:** Offers a unique, warm, earthy look with natural color variations, fitting rustic or traditional styles.
- **Eco-Friendly:** Made from natural clay, it's sustainable, biodegradable, and can be locally sourced.
- **Breathable/Porous:** Allows air and moisture to pass through, great for plant roots (dries soil faster).
- **Durable & Strong (in some uses):** Can resist high winds and impacts (like hail in roofing), and has fire resistance.
- **Energy Efficient:** Helps regulate temperature in buildings (roofing).
- **Versatile:** Available in many shapes, sizes, and designs for floors, roofs, and decorative items.

Cons:

- **Porous & Stains Easily:** Absorbs water, oil, and dirt easily if not sealed, leading to stains and potential algae growth.
- **Requires Sealing:** Needs sealing and resealing for moisture protection, adding to maintenance.

- **Fragile:** Can crack or break if dropped, hit, or during installation, especially in freezing weather.
- **Heavy:** Significant weight, especially for roofing, which can require extra structural support.
- **Maintenance:** Can dry out soil too quickly for some plants (cacti love it, others need frequent watering).
- **Cost:** Can be more expensive than basic ceramic options.

Best For

Plants: Cacti, succulents, herbaceous plants that like drier soil.

Decor: Rustic, Mediterranean, or farmhouse styles.

Applications: Features like decorative screens (jaalis), flooring, and roofing (in suitable climates).

Chemistry: The authentic terracotta colour in natural materials comes primarily from a high iron oxide content in the clay, which oxidizes to a rich reddish-orange hue when fired. In manufactured products like paints, food colouring, or cosmetics, the colour is created using specific pigments.

Natural Terracotta (Clay/Ceramics): The colour is an inherent characteristic of the raw material, specifically: Clay (earthenware clay is most common).

High iron content (specifically hematite and magnetite). During the firing process in a kiln (typically around 1,000 °C or 1,830 °F), the iron reacts with oxygen to produce the characteristic red-brown colour. Other mineral elements, such as silica, alumina, potassium oxide, and titanium dioxide, can also be present and influence the final shade, which can range from yellow/buff to pink or grey.

Manufactured Terracotta Colour (Paints/Pigments/Food Colouring)

Manufacturers use various ingredients to simulate the natural colour:

Paints: The colour is often achieved by mixing specific pigments. Common mixtures for artists using acrylic or oil paints include a blend of: **Sienna** (from Italian terra di Siena 'earth of Siena') is an earth pigment containing iron oxide and manganese oxide. In its natural state, it is yellowish brown, and it is called **raw sienna**. When heated, it becomes a reddish brown, and it is called **burnt sienna**.

- **Burnt Sienna** [Burnt Sienna is a warm, reddish-brown earth pigment named from the Italian "terra di Siena," made by heating raw sienna clay, which turns its yellowish-brown colour reddish due to iron oxide. Popular with artists for painting landscapes, portraits, and creating rich earth tones, it's known for its transparency, stability, and ability to create deep blacks or warm greys when mixed with blues and whites, available in oils, acrylics, and watercolours, and even used in wood stains.

Characteristics & Use

Colour: A rich, reddish-brown, warmer than raw sienna.

Origin: Derived from heating raw sienna clay.

Pigment: Contains iron oxide, changing from raw sienna's yellow to a red hue when heated.

Artistic Properties: Transparent, excellent for landscapes, creates deep tones with blues, produces pinks with white.

Applications: Oil paints, watercolours, acrylics, wood stains, and even decorative finishes.]

- **Raw Sienna** [Raw Sienna is a natural, warm, yellowish-brown earth pigment (iron oxide) used for centuries in art, known for its transparency, making it great for glazing, underpainting, and matching wood tones in stains, paints (oil, watercolour, acrylic). It offers natural earth colours, mixes well, provides good coverage, and is durable, but thicker application can be uneven; it's also used for wood filling and polishing.

Key Characteristics

Colour: A warm, yellowish-brown, natural earth tone.

Composition: Primarily iron oxide hydroxide.

Transparency: Semi-transparent, excellent for glazing.

Uses: Painting (underpainting, glazing, blending), wood staining, filling wood pores, crafts, and industrial paints.

Origin: Named after Siena, Italy, where it was sourced. Cadmium Red (or a brown and a little red acrylic paint), White (to lighten the shade). For a textured "faux terracotta" look, baking soda or baking powder is often added to the paint mixture to create a gritty texture.

Industrial Pigments: For colouring concrete, plastics, or other industrial applications, manufactured iron oxide pigments are used.

Food Colouring/Cosmetics: In food-grade colorants or cosmetic formulations, the ingredients used are specific food-safe or cosmetic-grade pigments:

Food Colouring: Common ingredients may include maltodextrin, carrot extract, carmines (natural red pigment), and artificial colours like sunset yellow FCF (E110), carmoisine (E122), and tartrazine (E102).

Cosmetics: Pigments in makeup include synthetic fluorophlogopite coated with iron oxides (CI 77491, CI 77492, CI 77499).

Terracotta's origin in India is ancient, deeply rooted in the Indus Valley Civilization (c. 3300–1300 BCE), where it was used for seals, figurines (like the Mother Goddess), toys, and utilitarian items, continuing through the Mauryan, Shunga, and Gupta periods, evolving from simple forms to sophisticated art for religious and daily purposes, flourishing across regions like Bengal, Andhra, and Bihar.

Regional Flourishing: Tradition continued with unique styles, such as the roof tiles of Bishnupur temples in Bengal and folk art in Bihar. Terracotta in India isn't just pottery; it's a living, evolving art form showcasing spirituality, daily life, and continuous innovation from prehistoric times to the present.

CONCLUSION: Terracotta's significance lies in its deep connection to human history, culture, and utility,

serving as a durable, versatile "baked earth" medium for everything from ancient spiritual idols (like India's Mother Goddesses, China's Warriors) and everyday pots to architectural marvels and modern sustainable design, symbolizing tradition, craft, and cultural identity across civilizations. Its significance spans practical functions, artistic expression, and spiritual belief, linking past and present through enduring craftsmanship.

Cultural & Spiritual Significance

Religious Icons: Used for idols, figurines (like yakshas in India), and ritual objects in ancient civilizations (Indus Valley, Greece, Rome).

Afterlife & Protection: China's Terracotta Army protects the first emperor in the afterlife, showcasing deep spiritual beliefs.

Cultural Identity: Art forms reflect regional identities and beliefs, from fertility cults in Mauryan India to folk deities in Assam.

Artistic & Historical Significance:

Artistic Expression: A canvas for artistic expression, from detailed figurines (Maurya period) to monumental sculptures.

Historical Records: Artifacts provide insights into past societies, technologies, and interactions (e.g., Greek influence on Mauryan art).

Craftsmanship: A testament to enduring artisanal skills, with techniques evolving over millennia (e.g., hollow figures in Satavahana period).

Practical & Architectural Significance

Utility: Made into everyday items like pottery, storage vessels, and water containers, known for keeping water cool.

Architecture: Used for decorative elements, tiles, and structural parts in buildings, valued for its insulation and aesthetic appeal.

Sustainability: A natural, accessible material that remains relevant in modern sustainable building practices.

Key Characteristics

Origin: Italian for "baked earth" (terra + cotta).

Material: Porous clay rich in iron, fired at high temperatures.

Properties: Durable, versatile, and affordable.

REFERENCE

1. <https://en.wikipedia.org/wiki/Terracotta>