OBJECTS AS HISTORY

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THE TEMPLE DOOR

Period: 13-14th century AD
Provenance: Katarmal, Almora, Uttrakhand
Medium: Wood, metal carved, cast
Museum: National Museum, New Delhi
Discipline: Interior Design

This huge door with heavy door frame, made of Shisham wood, and metal chain for locking is an excellent example of traditional wooden doors used as part of the temple or palace architecture. Besides the divine imagery carved on various door-panels attesting the door's temple links, the door also carries an inscription which reveals the door's identity. The door is composed of two parts, each with four square panels fixed on a raised frame. Metal hinges have been used for joining the doors with the door frame. These eight panels are intricately carved with images of deities, and human and animal figures.

The right side panel on the top of the door has been carved with the seated images of Uma-Maheshvara with Nandi underneath and the left, with the standing images of Lakshmi-Narayana with their usual attributes and vehicle. Images of Bhairava, stylized mythical animals and Mithunas - amorous couples, have been carved in remaining six panels. The raised panel frame is decorated with floral creeper patterns intercepted by a number of roundels carved in between. These roundels depict various deities' images. The right door leaf carries on its back a five-line inscription in Devanagari. This door is one of the finest examples of northern temple woodcarving tradition prevalent in Himalayan region in particular.

While studying the design, the one fault I could identify was that this door is made of wood, and even though Shisham is one of the best quality woods, it can easily be torn down by an axe, which was a common weapon in those times. Since its a temple door, an attack by enemies will put a lot of lives in danger, since in those times people used to live in temples. To make the door sturdier, I would suggest on making the structure of a door with bronze. The carvings can be done separately on block of wood, which can be mounted on the door. This way, it will not lose its beauty, and also fulfill its purpose of protecting those staying at the temple.

-Vidushi Gupta

JAPANESE FIREMEN'S COAT

Period: 19th century AD
Provenance: Japan
Medium: Cotton Cloth and Indigo Dye
Museum: Seattle Art Museum, Seattle, Washington
Discipline: Fashion Design

This particular coat is decorated with a spider hovering over an abandoned Go board. The scene is from the story of the warrior-hero Minamoto no Yorimitsu who, once when sick, was visited by an evil priest in the guise of a giant spider. Yorimitsu saw through the disguise and attacked the spider priest, and his four attendants (who were playing a game of Go while guarding him) leapt up to track the intruder back to his den.

During the Edo period in Japan (1615–1868), crowded living conditions and wooden buildings gave rise to frequent fires — so frequent in fact it was said that "fires and quarrels were the flowers of Edo". The socially segregated brigades formed to combat these fires were made up of either samurais or commoners, but whatever their class, their methods were the same: they would destroy the buildings surrounding the fire in an effort to contain it. Although experiments with wooden pumps were made, limited water supply rendered this more modern firefighting method impractical.

Each firefighter in a given brigade was outfitted with a special reversible coat - plain but for the name of the brigade on one side and decorated with richly symbolic imagery on the other. Made of several layers of quilted cotton fabric, using a process called the sashiko technique, and resist-dyed using the tsutsugaki method, these coats would be worn plain-side out and thoroughly soaked in water before the firefighters entered the scene of the blaze. No doubt the men wore them this way round to protect the dyed images from damage, but they were also concerned with protecting themselves, as they went about their dangerous work. Although these worked quite well, the problem with their design is that they were not fire resistant unless they were completely soaked, which rendered the garment very heavy and difficult to sport. A solution can be making these garments out of wool instead of layered cotton, since wool is highly heat resistant.

-Vidushi Gupta

RAMPURIA HAVELI

Period: 15th century AD
Provenance: Bikaner, Rajasthan
Medium: Red Sand Stone
Discipline: Interior Design

Rampuria Haveli, the grandest haveli in Bikaner, Rajasthan was constructed during the 15th century by a wealthy merchant family, Rampuria. With Dulmera red sandstone as the crucial base material, lavish inner halls and rooms are decorated and beautified with aesthetic object d'art; first-class landscapes and portraits and artefacts made from fine wood.

A cluster of seven havelis forms the Rampuria Haveli, the grandest of them being Bhawar Niwas. The inner courtyard of Bhawar Niwas is adorned with stunning handiwork consisting of delicately designed jharokhas, latticed windows and collonades. Though this courtyard fulfills its aim of providing light and vetilation to the haveli, I think adding a systematic central-well in the courtyard would have been significant since Bikaner lies in the arid region of the Thar desert. This ground water could have been used in the cooling-system which involved slow-dripping of water through pipes on curtains in the hallways. It would also act as a passive cooling measure against the heat released from the ground as well.

In present day, Bhawar Niwas has been converted into a heritage hotel with an addition of a fountain in its courtyard. Had there been a well-maintained existing well, it would have been a great help in reducing the usage of water from the government supply which would lead to reduced expenses for the owners. Even though courtyards are an effective way of achieving a private open space and also saving on energy bills, it is not financially feasible for many to construct them in their houses today because of the availability of space at a premium.

You don't gotta pay no bills for water!

-Shuchi Daftari

THE ARMOUR OF AURANGZEB

Period: C. 1680 A.D
Provenance: Delhi, Mughal
Medium: Steel and cotton wool
Museum: National Museum, New Delhi
Discipline: Fashion Design

A body armor is a protective clothing designed to absorb or deflect physical attacks. This waist-coat, as shown in the picture, was composed of fine Damascus steel and belonged to the Mughal Emperor Aurangzeb who ruled from 1658 to 1707 AD. It consists of two curved plates, molded in the shape of a human torso and are hinged together from the shoulders and the sides. The top and the sides of the armor have three roundish cuts for the insertion of the neck and the two arms, respectively. Both plates are detachable. In order to impart more strength to the armor, it consists of a lining of yellow satin stuffed with cotton wool.

Considering the exposure of body parts like the arms, the armor should have included two arm guards made of the same metal as the waist armor. The guards could have been molded to the shape of Aurangzeb's arm covering an area of at least the shoulder to elbow. To tie the guards around the arm, leather straps could be used instead of rigid hinges for ease of movement and flexibility during a fight. The outer surface of the guard could have sharp spikes on it which could be coated with a poisonous solution if needed.

Furthermore, in a round neck armor, the throat would be completely at risk of injury. Hence, the body armor would also require a feasible yet strong element for the safety of the neck. Just like we wear high neck sweaters in winters for protection from the cold, the front armor plate would have a high neck collar, either permanently welded to it or detachable, which would also be made of steel along with a cotton lining on the inside.

-Shuchi Daftari

TYRIAN PURPLE

Period: 14th Centuary BC
Provenance: Tyre, Phoenicia
Medium: Several species of predatory seasnail
Museum: The Carneige Museum of Natural History
Discipline: Fashion Communication & Styling

Tyrian Purple is a dye which was prodcued in the city of Tyre during the Bronze Age. This dye was extraced from a predatory tropical marine mollusk. To make Tyrian purple, marine snails were collected by the thousands. They were then boiled for days in giant lead vats, producing a terrible odor. More than 9,000 mollusks were needed to produce just one gram of Tyrian Purple.

The phrase 'Born in Purple' dates back to this process by which Tyrians produced purple. In Ancient Rome, clothing provided an immediate way of distinguishing 'Who is Who'. The colour purple was so outrageously expensive that only the rulers could afford it, thus connecting the colour purple to royalty. Tyrian Purple, Tyrian Red, Royal Purple, Imperial Purple or Imperial Dye is a reddish-purple natural dye.

The color purple was not only reserved as a status symbol for clothing but was also used in Roman monuments and buildings. "Imperial Porphyry" is an igneous rock that contains hematite and the manganese-bearing mineral piemontite that makes it similar in color to the Tyrian purple dye. The obvious problem with this whole process of making purple dye was the it was a difficult, long and expensive process.

After a series of extraction of purple dye from seasnails, blackberries and mulberries, logwood tree, etc purple was manufactered by a chemical process. In the modern world, the chemical process of dyeing wastes a lot of water. Thus, newer methods are being developed in order to amke the dyeing process less harmful to the environment and at the same time easy. From research, I understand that biotechnology might take over the dyeing industry shall they discover a method to manipulate growth of micro-organisms that impart pigment. One such micro-organism is the streptomyces coelicolor that produces pigment as it grows during its week-long life. This organism produces a range of pink, blue, purple shades depending upon the pH level.

-Prekshika Todi

VESPASIAN'S COLOSSEUM

Period: AD 70-72 (construction started)
Provenance: Palantine Hill, Rome
Medium: Travertine, Tuff, Marble
Museum: Rome & Vatican Museums
Discipline: Interior Design

Emperor Vespasian of the Flavian dynasty commisioned the massive stone amphitheatre known as the Colosseum as a gift to the Roman people. Famously known as the Falvian Amphitheatre, it was a purpose-built arena in the centre of Ancient Rome for staging various forms of entertainment. It became the largest amphitheatre, seating up to 80,000 Romans. Several gladiator fights, animal fights and shows called 'naumachie' were staged at the Colosseum for entertainment.

Vespasian's Colosseum was built in a valley, having dried a small lake that Nero used for the Domus Aurea, between the hills of the Palatine, Esquiline and Celio. It was made in brick and covered with travertine and divided into five levels. Taverine is the limestone which was used in the main pillars. Tuff is another construction material which is softer than travertine and it brings elasticity. However, since it was not resistant to the fire, the damage was bigger in cases of big fires in Colosseum. Concrete was invented by the Romans. It was cheap, quick to make, and easy to use. To make concrete, the Romans dropped pieces of rubble into sticky mortar made of lime, water, and pozzolana (a volcanic ash). The mortar hardened as it dried, holding the concrete together. Rubble gives concrete its strength. Big lumps of heavy rubble were used in the Colosseum's foundations. Small lumps of light rubble were used in the upper walls.

The Colosseum is damaged because of natural disasters, in particular, earthquakes. I believe that damage could be prevened to a certain extent if it were not built in a valley, and if sturdier construction materials which were also fire resistant.

-Prekshika Todi