

Sanrachna संरचना

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**DEPARTMENT OF CIVIL ENGINEERING
UNIVERSITY INSTITUTE OF TECHNOLOGY
RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA, BHOPAL**

Our View

“You write to communicate to the hearts and minds of others what's burning inside you, and we edit to let the fire show through the smoke.”

Arthur Plotnik

Sanrachna aim to explore collection of techno-artistic contributions by the students of Civil Engineering Department

We hope our readers a joyful reading experience!

Our Team



Bhanu Gupta (6th Sem)



Harsh Rawat (6th Sem)



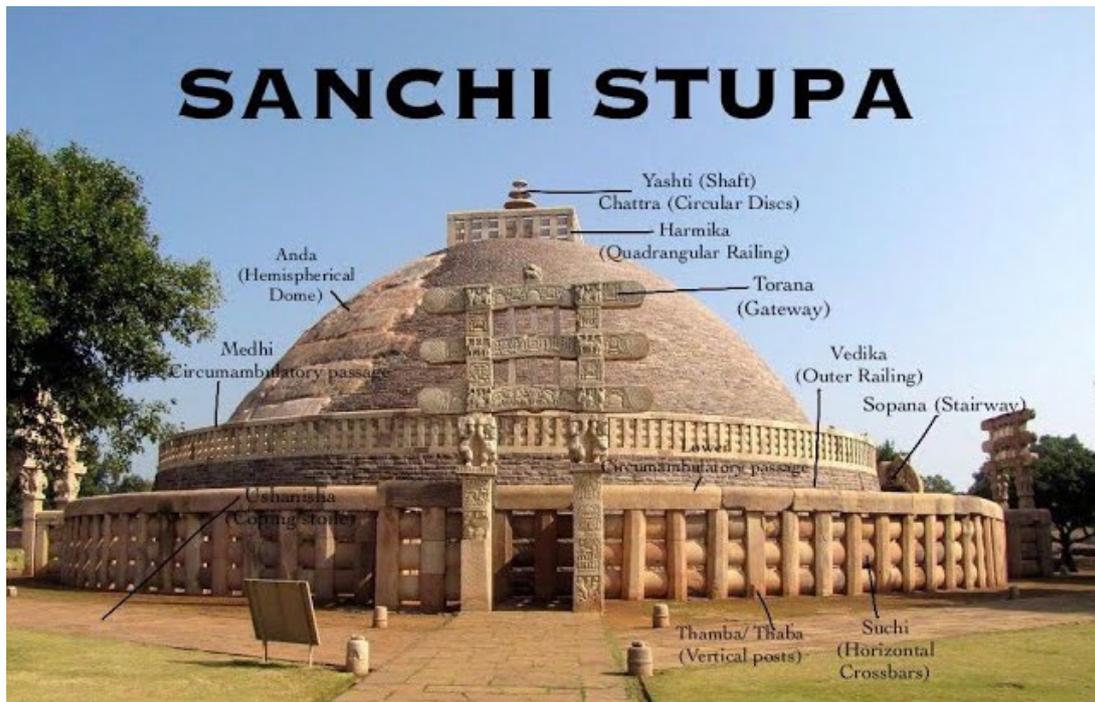
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Magic of Ancient Architecture



The Sanchi Stupa is one of India's most important Buddhist landmarks, and it houses some of the country's earliest stone buildings. Also, It is an important monument of Indian architecture and one of India's oldest stone constructions. It was commissioned in the third century BCE by Mauryan ruler Ashoka the Great. It began with a basic hemispheric brick edifice erected over the Buddha's relics. Sanchi, a historical city nestled in the Vindhya Range 46 kilometers from Madhya Pradesh's capital Bhopal, also has 50 additional sites, including temples and monasteries. The beautiful carvings and inscriptions show Indian architecture from the Mauryan era (3rd century BCE) through its downfall in the later medieval age (around 11th century CE). The Mahastupa (Great Stupa), the Ashokan pillar (with its inscriptions), and the beautiful torans are all noteworthy features of the Sanchi complex (gateways). Since 1989, Sanchi Stupa has been a UNESCO World Heritage Site. Madhya Pradesh is home to Sanchi

Historical background

Sanchi's monuments currently consist of a collection of Buddhist monuments that date from the Mauryan Empire (3rd century BCE), continue through the Gupta Empire (5th century CE), and conclude around the 12th century CE. The Great Stupa, also known as Stupa No. 1, is the oldest and greatest monument. It was created under the Mauryans and is ornamented with one of Ashoka's Pillars.

The Great Stupa was enlarged and ornamented with gates and railings in the succeeding centuries, particularly during the Shungas and Satavahanas, and minor stupas, including Stupa No.2 and Stupa No.3, were also built in the vicinity.





According to Ashokavadana, the stupa was vandalized sometime during the 2nd century BCE, an incident that some have linked to the ascension of the Shunga monarch Pushyamitra Shunga, who overthrew the Mauryan Empire as an army officer. The first stupa may have been demolished by Pushyamitra, and his son Agnimitra rebuilt it, according to legend. During the Shunga period, the original brick stupa was covered with stone.

In 1819, British captain Edward Fell wrote one of the first accounts of the Sanchi Stupa. It took another 93 years for John Marshall to 'rediscover' the site, and another seven years for it to be restored to its current state.



Sanchi Stupa - Features

- The **Mahastupa (Great Stupa)**, the Ashokan pillar (with its inscriptions), and the beautiful torans are all noteworthy features of the Sanchi complex (gateways).
- The **torans and fencing** are reported to be modeled after the bamboo crafts of the surrounding areas.
- The design of the stupa's fencing, as well as the torans' design, are reminiscent of bamboo craft and knotted bamboo.
- Bricks were used to construct the original construction. It was afterward covered with stone, **vedica**, and **torana (gateway)**.



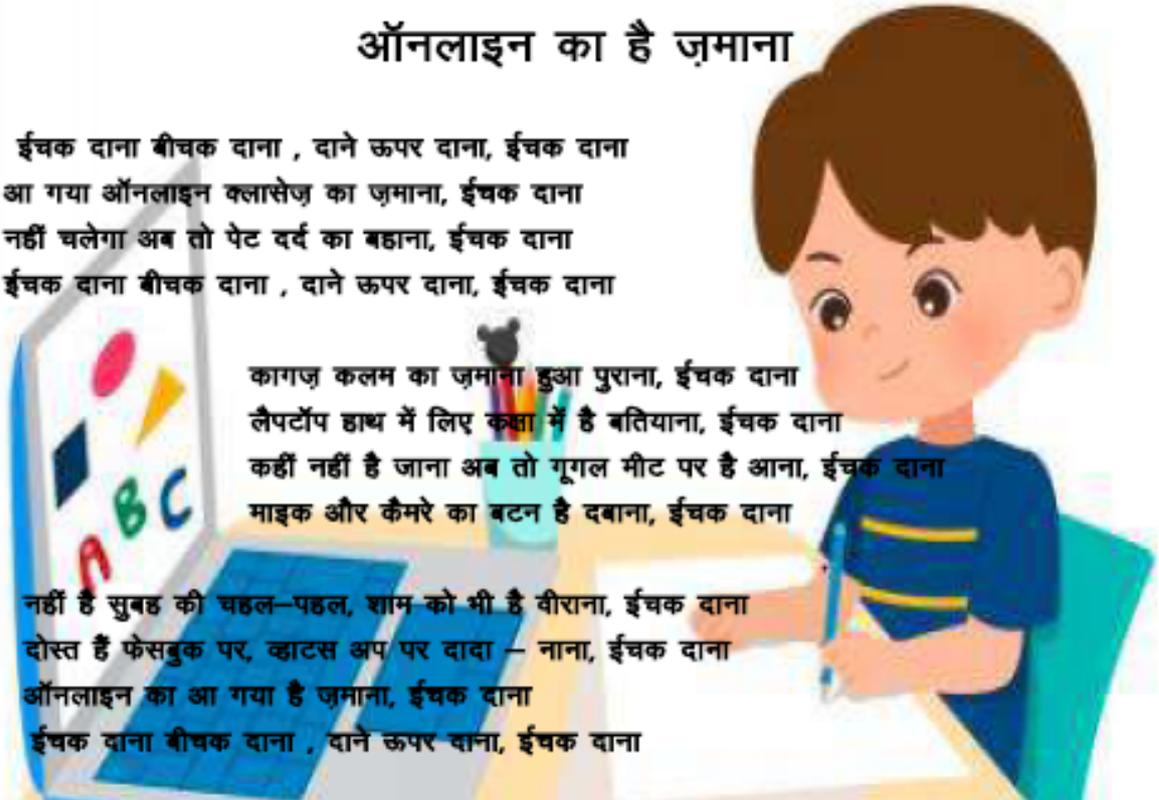
- The stupa has four entrances, with the southern one being the first to be completed. Others were added subsequently.
- The gateways are ornately carved and ornamented with statues. Two vertical pillars and three horizontal bars make up each **torana**. On the front and back of the bars are **magnificent sculptures**.
- They feature depictions of **shalabhanjika**, or women grasping a tree branch.
- Here are carved stories from the **Jataka tales**.
- A lower and upper pradakshina patha, or circumambulatory walk, runs around the structure. This stupa's upper pradakshina patha is unusual.
- The **Ashokan Lion Capital pillar**, which has inscriptions on it, may be seen on the southern side of the stupa.
- The **Anda** refers to the stupa's hemispheric dome. It is where the Buddha's relics are kept.
- On top of the dome/mound lies the **harmika**, which is a square railing.
- On top of the **harmika**, the **chhatra** is an umbrella. The location contains a sandstone pillar inscribed with **Ashoka's Schism Edict**.
- During the rule of the **Shunga dynasty**, the original brick dome was doubled in size, with stone slabs covering the previous dome.
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ऑनलाइन का है ज़माना

ईचक दाना बीचक दाना , दाने ऊपर दाना, ईचक दाना
आ गया ऑनलाइन क्लासेज़ का ज़माना, ईचक दाना
नहीं चलेगा अब तो पेट दर्द का बहाना, ईचक दाना
ईचक दाना बीचक दाना , दाने ऊपर दाना, ईचक दाना

कागज़ कलम का ज़माना हुआ पुराना, ईचक दाना
लैपटॉप हाथ में लिए कक्षा में है बतियाना, ईचक दाना
कहीं नहीं है जाना अब तो गूगल मीट पर है आना, ईचक दाना
माइक और कैमरे का बटन है दबाना, ईचक दाना

नहीं है सुबह की चहल-पहल, शाम को भी है वीराना, ईचक दाना
दोस्त हैं फेसबुक पर, व्हाट्स अप पर दादा – नाना, ईचक दाना
ऑनलाइन का आ गया है ज़माना, ईचक दाना
ईचक दाना बीचक दाना , दाने ऊपर दाना, ईचक दाना



Trupti Bisen



Roses are red,
Violets are blue,
Civil engineers build,
What's needed for me and you.

They design roads,
Bridges, and buildings tall,
Ensuring they withstand,
Earthquakes and winds that bawl.

Their calculations are precise,
Structures mustn't sway,
And when it comes to safety,
They don't just guess and pray.

From the foundation to the top,
Every detail must be right,
With concrete, steel, and stone,
They build with all their might.

So next time you drive on a bridge,
Or enter a building so grand,
Remember the civil engineers,
Who made it safe and brand.

Their work is often hidden,
But it's crucial nonetheless,
For without their careful planning,
Our cities would be a mess.

They consider the environment,
And how to minimize impact,
Creating sustainable structures,
That won't cause the earth to crack.

They work in teams,
With architects and builders too,
Collaborating to make sure,
Their vision comes through.

Civil engineers build the world,
As we know it today,
So let's appreciate their efforts,
And thank them along the way.

Om Prakash Mishra (4th Sem)



GREEN BUILDING

We are well aware about various environmental issues such as global warming, water and air pollution and the measures that need to be taken to prevent them.

If we switch to sustainable architecture and green buildings , not just for nature's sake, but for ourselves, we could not only save the environment but also reduce our total ownership costs.

A 'green' building is a building that, in its design, construction or operation, reduces or eliminates negative impacts, and can create positive impacts, on our climate and natural environment. Green buildings preserve precious natural resources and improve our quality of life.

There are a number of features which can make a building 'green'. These include:

- Efficient use of energy, water and other resources.
- Use of renewable energy, such as solar energy.
- Pollution and waste reduction measures, and the enabling of re-use and recycling.
- Good indoor environmental air quality.
- Use of materials that are non-toxic, ethical and sustainable.

Some Worldwide Reports on Green Building by Respective Organization in World are:

- Since the publication of World GBC's ground breaking 2013 report, The Business Case for Green Building, we have sought to strengthen the link between green buildings and the economic benefits they can offer.
- The building sector has the largest potential for significantly reducing greenhouse gas emissions compared to other major emitting sectors – UNEP, 2009.
- Green buildings achieving the Green Star certification in Australia have been shown to produce 62% fewer greenhouse gas emissions than average Australian buildings, and 51% less potable water than if they had been built to meet minimum industry requirements.
- Green buildings certified by the Indian Green Building Council (IGBC) results in energy savings of 40 - 50% and water savings of 20 - 30% compared to conventional buildings in India.

Our Better Places for People project focuses on creating buildings which are not only good for the environment, but also support healthier, happier and more productive lives.

Resources:

- Worldgbc.org
- ecoideaz.com

The concept of global warming, climate change, sea level rising and environmental degradation is not new to the kids of this generation. Us human beings even in our short amount of time on Earth have managed to inflict quite a huge impact.

But even after repeatedly hearing about them in schools, universities, news and around, we remain unfazed. What seems to be the problem? Why can't we consider it OUR personal duty and take it upon OURSELVES to save our planet and all the living beings in it?

"The greatest threat to our planet is the belief that someone else will save it."



These lines were said by none other than Robert Swan, the first person to walk both poles and an advocate for the protection of Antarctica.

Scientists believe that the period of extinction of this era is even faster than the extinction of dinosaurs. More species are getting extinct by the decade. It is not long till humans have to strive for basic survival because the damage inflicted on the planet will be irreversible and nothing could be done. Infact, scientists also believe that our generation might be the last generation which may still be able to save Mother Earth and bring a change. After us, it will be too late.

We as aware citizens of the society need to take environmental friendly steps and help our leaders. Environmental policies are implemented by the government, bt if we don't believe in them, they won't have the desired effect. Take care of our planet as you do to your mother. We haven't inherited this planet from our forefathers, rather it has been indebted to us by our grandchildren.

As the father of our nation, Mahatma Gandhi rightly said, "BE THE CHANGE YOU WISH TO SEE IN THE WORLD". Don't wait for someone to start something new, be the spark and start a revolution yourself. Who knows, YOU might be the one to save the future generations!

Drisha Shrivastava (4th Sem)

कुछ कर दिखाना है



Mayank



The backbone of our infrastructure

Jab shahar mein kharda tha kuch nahi,
tab hum civil engineers aaye aur duniya
badal gayi.

Har kadam par, humne socha naye
sapne, har roj ki mehnat se bani, duniya
ke naye chehre.

Jis jagah bhi dekho, humari mehnat
nazar aati hai, Har building, har bridge,
har dam, sabki humne taiyari ki hai.
Ek nazar mein duniya badalne ka kaam
kiya, humne engineering se, duniya ko
naye aasman dikhaya.

Engineering ke kaam ke peeche, humne
apna dil laga diya, har ek jhurri, har ek
chunauti, humne bhi maana aur khud ko
sabit kiya.

Har ek zindagi, humne bachayi, har ek
shahar, humne sajaya, Duniya ke naye
niyam humne banaayi, humne
engineering ke dum pe, duniya ko naye
darwaze dikhayi.

Ab jab bhi koi sheher dekho, to bas
kehna hai, ki yeh duniya ko humne,
engineering ke dum pe diya hai.

Mayank solanki





ARTIST WALL



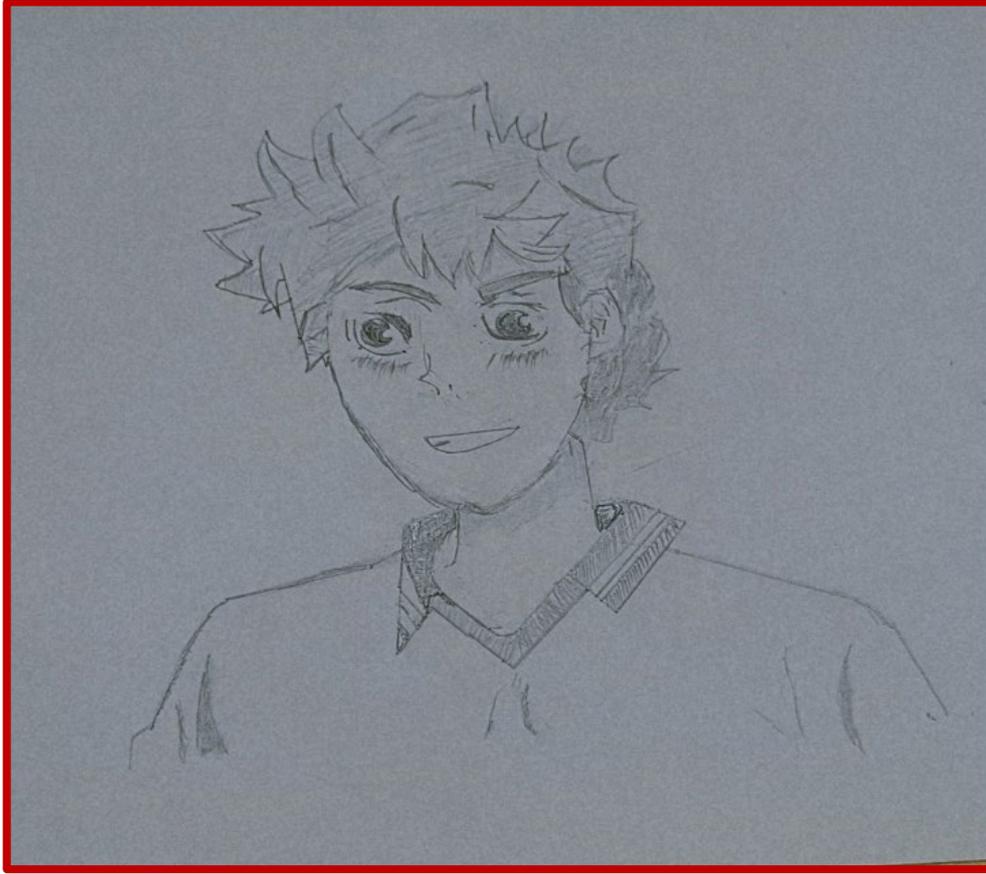
By: Tejaswini Mandloi
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**By: Krishnakant Dhurve (4th
Sem)**





By: Arpit Khare

