

## Capacity Building at CCA.

Thank you Indian Express and LCPJ forum! Every fortnight a student or faculty shall be writing a piece in the series "Making of Chandigarh" to highlight lesser known nuggets to a wider readership about the process of city building. Harsahib Kaur Shergill of the Seventh semester has penned the 5 points of Le Corbusier's design principles applied in the city, how many do you know about? Read on...

# What makes the classic buildings of UT stand out?

## Making of CHANDIGARH

**HARSAHIB KAUR SHERGILL**

**LE CORBUSIER** (Charles-Edouard Jeanneret), one of the master architects of the 20th century, was a pioneer of the Modern Architecture Movement. His work intended to convey the efficiency and modernity of the emerging technological world. He was greatly influenced by the industrial structures and hence developed pure forms that are seen in his paintings as well. He wanted to build tall buildings as he believed it would resolve two main problems – overcrowding and urban sprawl. His vision for the future city included footpaths for people and massive roads dedicated to motorways with smooth curves to provide easy transition.

Corbusier formulated the Five Points of Architecture which dictated his career and were implemented by many architects to come. They were – the pilots, free ground plan, free façade, ribbon windows and roof garden. His other important contribution to the modern architectural thought was the 'Modulor' – the study of the proportions of the human body that reoccurs in his buildings and art. Symbolised by a man with a slim waist and an upright arm, the modular man serves as



**Gandhi Bhawan (above) and Tower of Shadows, designed by architect Le Corbusier, in Chandigarh. Express**

a measure for universal proportioning and activities performed for different activities in various positions – sitting, bending, working, standing etc. It places human needs at the centre of design and architecture and gave an "infinite number of combinations of plans".

Thus one can find Corbusier's signature design principles intending to create a play of light, space and nature in his work in Chandigarh. He designed the city akin to a living organism. The city's 'head' is home to the sweeping concrete masterpieces of the Capitol Complex and a lake. The 'heart' is the commercial centre and

vast green spaces form its 'lungs', all connected by a circulation system of roads and pedestrian-friendly avenues. Signifying the functional city, the sectors were self-contained.

Chandigarh became a canvas for implementation of Corbusier's five-points of architecture portraying a modern architectural world. Based on the concept of the unending spiral and unlimited growth, the Government Museum and Art Gallery in Chandigarh stands on thick reinforced concrete beams and columns – the Pilots that leaves the ground free for undis-



### LE CORBUSIER'S FIVE POINTS

**THE PILOTS:** Supports such as columns, pillars, or stilts that lift a building above ground or water

**FREE GROUND PLAN:** A floor plan with non-load-bearing walls and floors by creating a structural system that holds the weight of the building by way of an interior skeleton of load-bearing columns

**FREE FAÇADE:** A building's façade that is not attached to load-bearing columns

**RIBBON WINDOWS:** A series of windows set side by side to form a continuous band horizontally across a façade

**ROOF GARDEN:** Intended to include nature in his buildings.

layout.

The principles of a free façade allowed separation of the structural element from the facade walls. This made it easier to build walls of any material or shape. The absence of load-bearing walls also made it possible to add windows of any shape and size which provided light. This is well-observed in the ribbon windows of the Museum as well as the Punjab Legislative Assembly, which has an open-plan interior and exhibits the principle of a flexible plan. It is framed by a portico of reinforced concrete columns, that offers a view of the Shivaliks.

The free façade also allowed him to use brise-soleils or sun breakers like egg crate walls that would allow ventilation to be incorporated into the concrete buildings as seen in the front facades of the Government College of Arts and also adopted in Chandigarh College of Architecture.

The fifth principal was a terrace garden that was intended to include nature in his buildings. The Secretariat building supports a rooftop terrace garden meant to offer a view of the Shivaliks from the highest point of the city.

Corbusier's five points are considered to be avant garde, truly ahead of the times, and have been continuously applied by architects. The Villa Savoye, Paris, displays the five points collectively.

(This is a series by faculty and students of Chandigarh College of Architecture. The writer is a student of Semester 7.)

# Le Corbusier: The curator of Chandigarh's urban landscape

## MAKING OF CHANDIGARH

SANGEETA BAGGA

CHANDIGARH is considered the most modern city of India, built to fill the void left by the loss of Lahore. It was a departure from the existing modes of thought with a great responsibility: to provide the best of amenities to all classes of people. Chandigarh was also the first complete realisation of Le Corbusier's urban precepts and the surrounding landscape.



### Who was Le Corbusier?

A Swiss-born French architect who adopted the pseudonym Le Corbusier, meaning crow, Charles Edouard Jeanneret Gris was the strongest protagonist of the Modern Movement whose quest for precision and artistic pursuit was inherited from a father, a watch dial engraver, and a musician mother.

His journey from the Alpine-Jura landscape to the plains of Panjab produced a 450,000-strong archive, which includes a vast repository of sketches, paintings, sketchbooks, drawings, maps, sculptures, artwork, poetry, and above all, the most majestic and provoking ensembles of architecture.

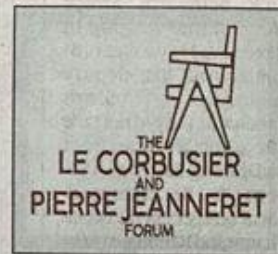
Corbusier is often criticised for treating his architecture as an object disconnected from the context. But that is not so.

Corbusier's greatest 'Landscape Project' in Chandigarh, its The Spiritual Directeur, was the Capitol Complex where he designed an 'optical apparatus' to capture and frame the views of the Shivaliks. The Capitol Complex exhibited his concerns for the site and the urban landscape.

On the verdant plain of Chandigarh, visually closed off by the Shivalik hills, Corbusier revisited the epiphany of the Acropolis in Athens, which he had documented in his sketchbooks during his travels, the Voyage d'Orient. It was the ideal placement of the city at the foothills of the emerald hills and the Capitol Complex was its noblest element. It was due to his respect for this context that his



A building in Chandigarh designed by Le Corbusier (above) and the logo (left) of the Le Corbusier and Pierre Jeanneret's forum. File



original buildings, which were planned in a linear fashion, had to be rearranged to be perpendicular to the Shivalik range so as not to block the view.

The initial sketches were buildings in two groups, the High Court on the one side and the Assembly and Secretariat on the other, with a large central open space between them, thus offering the extended view of the mountains. A single structure, the Open Hand, was to rise atop a tall podium in this space. Working on this scheme, the composition became tighter and more geometric to include four majestic edifices and six monuments arrayed atop a 5-metre-high plaza where the 'pedestrian is the king' in eternal contact with nature. The creation of the symbolic axis depicted by the ceremonial path, the Jan Marg linking the city centre Sector 17, to the Capitol Complex, brought the citizens to the 'seat of

Administration'.

The new composition created a 1,400-metre-long Capitol and formed two equal squares, each divided into four equal sections, 350m on one side. Peripheral obelisks marking the boundaries of the Capitol Parc, as Le Corbusier called it, and a water channel forming its southern boundary, were seemingly inspired from the landscape architecture of the Mughal gardens of Pinjore, which Corbusier visited prior to his final sketches of the Capitol.

Corbusier's visits to the Mughal Gardens at Red Fort and the presidential Palace designed by Lutyens where he had his earliest meetings with Pandit Nehru were opportunities to appreciate architectural and natural compositions structured according to end points that identify notable elements of the landscape.

Thus began the story of Chandigarh, amidst the disci-

plines of local climate, a shoestring budget, and indigenous materials and methods of construction. With its theme of 'Sun, Space and Verdure', it was to be "a capital that would serve as a model in city planning for the nation, if not for the world". The Capitol Complex as its ceremonial and administrative head also represents the first-ever largescale use of the modern material—Reinforced cement concrete. Cast and poured in situ with plastic qualities, it created the sculptural skylights and magnificent ramps for the Assembly Chambers, the parasols in the Secretariat, and porticos in the High Court. To add richness to the monochromatic concrete were the hand-painted ceremonial doors, the colourful tapestries or nomadic murals as Corb called them depicting Indian motifs and forms from nature.

Corbusier's Capitol Parc stands tall today as the largest property on the transborder serial nomination of Corbusier's works spanning seven countries across five continents on UNESCO's World Heritage List.

(The writer is the principal of Chandigarh College of Architecture)