

# Low Cost Interior Design

Tijil Tiwari

Mrs Aarushi Dwivedi, Department of Architecture, Sunderdeep College of Architecture, UP, India

\*\*\*

**Abstract** - This paper examines possible replacements for contemporary interior design elements with less expensive options, such as structural elements or vernacular elements found in regional and rural architecture. Vernacular elements are being used as interior design elements in many parts of the world as a part of the local heritage and are a major part of the low-cost interior design alternatives. Design elements such as large windows and special shaped staircases can add to the beauty of the internal space by emphasizing the other design elements complimenting the space. The use of the structural elements and vernacular architecture elements can have a significant impact on the overall cost of the project in question.

**Key Words:** Interior , interior design, low cost, recycle, salvage material.

## 1.INTRODUCTION

Understanding how people behave and creating useful, visually pleasing spaces within a structure are the art and science of interior design. The furnishing or ornamentation of a place with ornamental items, sometimes in conjunction with guidance and helpful assistance, is known as decoration.

This paper analyses the potential replacement or alternatives to the modern day interior design elements by low-cost alternatives such as structural elements or the vernacular elements used in local and rural architecture. Vernacular elements are being used as interior design elements in many parts of the world as a part of the local heritage and are a major part of the low-cost interior design alternatives. Design elements such as large windows and special shaped staircases can add to the beauty of the interior space by emphasizing the other design elements complimenting the space. The use of the structural elements and vernacular architecture elements can have a significant impact on the overall cost of the project in question.

The purpose of this research is to investigate the function of interior design details in the impression of home spaciousness. It supports the notion that the size of any home is an objective variable rather than a physical one. As a result, the design of the home can alter our impression of interior areas. The incorporation of design elements such as form, height, color, and light can alter our perception of how spacious a home is. Interior designers typically want to use various design elements in a home such as form, volume, color, and light to increase the preceding the openness

thereof. While the tools used by interior designers do not alter the tangible properties of space, they do create visual illusions that alter how people perceive space and openness. Interior designers must have a strong sense of location, which can only be achieved through professional experience, study, education, and ongoing observation of various kinds of buildings.

## 2. LITERATURE STUDY

This review of the literature summarises current study on the status of interior architecture in India. The review offers a philosophical perspective on the interior design industry and how these designs affect the minds of those who use or live in interior settings. The review examines the history of interior design and how contemporary interior design evolved in the nation. One of the main issues that requires additional study in the area of interior design is its potential environmental effect. The study should help professionals in the area determine whether they are practicing with the climate in mind. The authorities can also use research on the environmental effects of interior design to establish legal limits above which legislative action can be taken against interior designers who damage the environment.

### 3.1. CASE STUDY :1

**Name of the Project – M/s ESSTEAM**

**Location – Surat**

**Rating level – Platinum, existing interiors**

**Occupancy: 55**

**Concept** – An architect and interior designer workplace on the 4th and 5th levels with approximately 5200 square feet and a terrace. The structure is completed in RCC both inside and out, and to enable sunshine, a 450-mm ribbon window at the top and bottom of each level runs all the way around on three sides. The 'C' shaped architectural projection provided storage options all along the perimeter inside, as well as vertical airflow, sanitation, electricity, irrigation, HVAC, and IT. The project performed exceptionally well in terms of ease of maintenance, as all of the metal dividers on the studio floor are simply attached with magnets and support very easily any kind of repairs or replacement / addition of wiring for electrical or LV uses during post occupancy. The project is designed by Ar. Snehal Shah.

Example – Salvaged Materials – Old timber is used as conference table top without any polishing avoiding VOC's. The room is designed to access natural daylighting, natural ventilation and with external connectivity as part of outdoor views to occupants.

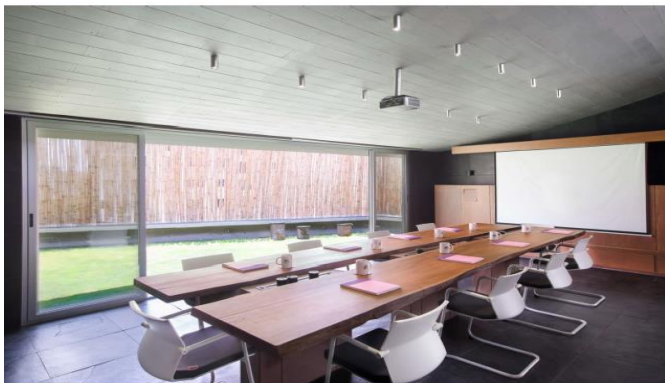


Fig 1 : old timber used in table tops

Example – Salvaged Materials – The waste old paint cans have been innovatively used as pigeon holes at the reception.



Fig 2 : old paint cans as letter boxes

Example – Salvaged Materials – The reinforcement steel waste pieces left over from construction have been welded and used as unique railing to internal staircase in all the floors

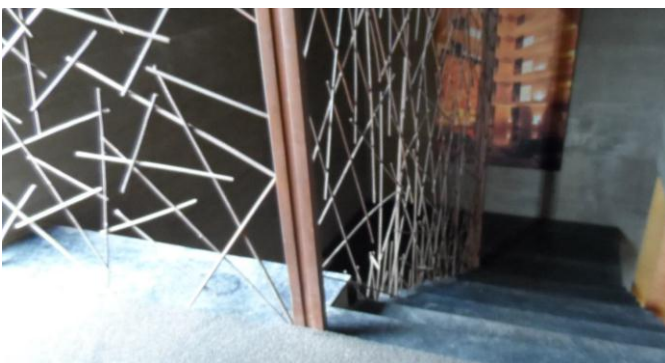


Fig 3: steel bars recycled into the railing

All areas in the project have BEE 5 Star certified unitary air conditioners.

Through the top and lower ribbon windows, the entire floor plate is completely daylight. This is exclusive to this structure.

Through the top and lower ribbon windows, the entire floor plate is completely daylight. All the services are hidden behind these magnet walls, which are readily detachable in the event of repairs or changes, and the centre section is used as storage space.

Lighting is linked specifically through GI lines without sacrificing luminosity levels. place for guests to relax. Rope left over from the site's building was used to adorn the columns. Not painted walls and ceilings have RCC finishes.

### 3.2. CASE STUDY: 2

**Name of the Project – AW Design**

**Location – Ahmedabad**

**Rating level – Platinum, New interiors**

**Occupancy: 10**

**Concept – - 'An Architect's Workspace, adaptive repurposing of refuse and salvage materials that saves money and the earth by turning green.' 700 square feet**

Program design | requirements: Interior design for an architecture firm in Ahmedabad. Team seating for up to 10 people, including a manager, open plan seating adaptable to discussion, lecture, and model making needs, store, no vestiges such as reception, room for studio head with workstation and discussion table, guest seating in head's room and two person seating for waiting guests, meeting room with a standing table and 5 person seating with AV facilities, library, pantry, and powder toilet. Document storage, soft boards confronting team members, and some size replicas of vehicles and planes Their IGBC Platinum-rated workspace demonstrates that turning green not only benefits the ecosystem but also saves money.

#### CONCEPT AND SPATIAL DESIGN:

It is thought that great work necessitates tremendous influence. The most powerful impact comes from what we see around us; it enables us to think freely and expand our horizons. They intended their workplace to be pleasing to the senses, a source of learning for the team, and appealing to both clients and employees. They wanted a workspace that mirrored the city's rich woodworking craft history while also feeling modern. As one enters the workplace, they are welcomed by an A0 sized art exhibit of a laser-cut outline of the walled city. This sets the tone for a heritage-focused visual story, with ancient couches and elaborately carved

100-year-old doors cascading onto their circulation spine known as the "Street". This culminates, as every street does, in a nukkad, which serves as their meeting place." Of course, one encounters individuals while walking down the street.

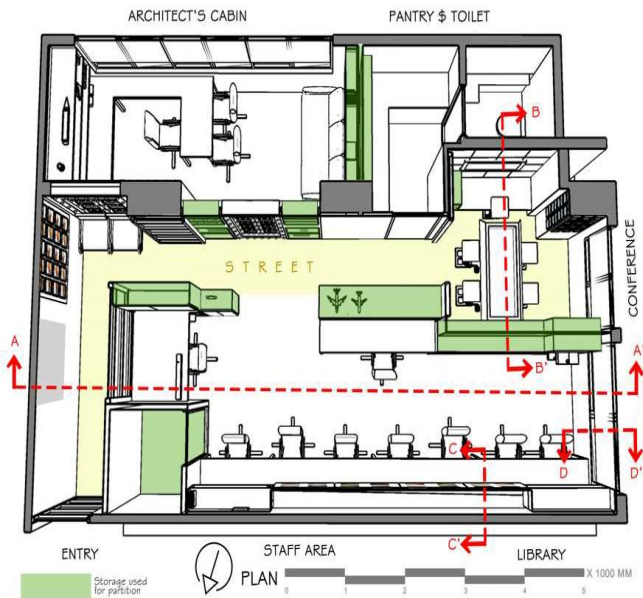


Fig 4: floor plan of the office

They decided to create some exhibit spaces for the studio head's scale models because he is an automotive and aircraft enthusiast. These models frequently become the focal point of discussion, and the stories that surround them motivate the team. Various personalities from the field and elsewhere who have helped shape their practise have found their frames in their meeting room's cosy 'inspiration area'. This area also functions as a meeting place for their staff. With small measurements of 8' x 10', they placed a bronze mirror to encompass an entire wall of the conference area, creating the appearance of a much bigger space. Their gathering space is connected to the staff area by a long wall and has a book collection as its primary partition. The glass above this partition provides a 360-degree perspective of the workplace. They maintained their conference table height at 42" as an experiment, so that most meetings are done standing up and to the point. This also allows for limb stretching, and if one is fatigued, they can simply rest on the bicycle seat. Their team space is adaptable and provides enough space for the team boss and up to 10 employees, who can choose to work, create models, have talks, go to lectures, or just sit and look outside.

The studio lead's apartment is concealed between two unusually sized columns and is partially translucent. The primary furnishings in his room is his desk, a discussion table, and a sofa from 1948. His larder and chamber are separated by a cabinet. They had to plan for low initial costs while also incurring low running costs. They decided to use white paint, wood-based finishes, and white aluminium

frames to hold the worktops. Their workplace was well lit and had a more appealing sense of space when combined with the ivory carpeting the developer put. In order to reduce transportation-related carbon emissions, their strategy has been to repurpose and purchase salvage materials for fitout. These materials include veneer, plywood, MDF, MS pipes, upholstery, soft boards, glass, mirror, and back-painted glass in addition to paints, thermocole, tiles, sofas, doors, and light fixtures.



Fig 5: thermacole used as an insulating material

They have joyfully discovered that taking easy measures like extending the lifespan of construction materials and using cheap aerators to conserve water can significantly reduce carbon footprint. The entire fitout was completed using refuse, recycled, or salvaged products. (except ACs, Computers and seating systems). They obtained ply from salvage vendors, a veneer lot made of showroom-displayed sheets, tiles from factory rejects, glass from a salvage dealer, upholstery from fabric catalogs, table MS frames and meeting room seating from metal scrap, insulation from common thermocole, blinds and softboard reused, a mirror from salvage, ceilings left unpainted, paint and polishes VOC-free & from site leftovers, doors salvaged from timber scrap, light fixtures made from their ply waste, and Simply stated, by rehoming goods in their workspace, they increased their usable lifespan. By doing this, they met not only the financial bottom line but also the environmental and social ones.

GREEN FEATURES:

1. Construction refuse and salvage materials were used solely for internal fitout.
2. Utilizing glass from a scrap yard, a 72-year-old couch and 100-year-old doors.
3. By simply applying 18mm thermocole sheets to the inner side of a wall, the average temperature differential between an interior and exterior wall surface is decreased by 15 degrees.
4. Local manufacturers produced 95% of the materials.

- 5. More than 75% of the building debris they generated was used on site. 0% of garbage is landfilled.
- 6. Water reductions of 39% annually
- 7. Energy reductions of over 20%
- 8. Light fittings made from scrap board pieces
- 9. Fixture power has been reduced by more than 35% compared to the Energy Conservation Building Code baseline.
- 10. Adaptive utilisation of salvaged, reused, and building refuse material results in overall cost reductions of 55%.



Fig 6: bamboo and recycled wood used in interior



Fig 7: salvaged MS bicycle stool

#### 4. ANALYSIS OF CASE STUDY

PARAMETER	CASE STUDY 1 M/s ESSTEAM	CASE STUDY 2 AW Design
LOCATION	SURAT	AHMEDABAD
OCCUPANCY	55	10
MATERIAL USED	<p>The waste old paint cans have been innovatively used as pigeon holes at the reception.</p> <p>The reinforcement steel waste pieces left over from construction have been welded and used as unique railing to internal staircase in all the floors</p> <p>Lighting is uniquely connected through GI pipes without compromising on the lux levels.</p>	<p>Approach has been to reuse, and procure materials from salvage for fitout, this includes veneer, plywood, MDF, MS pipes, Upholstery, soft boards, glass, mirror, backpainted glass, paints, thermocole, tiles, sofas, doors, light fixtures etc, all locally sourced tiles from factory rejects, glass from salvage dealer, upholstery from fabric catalogues.</p>

#### 5. CONCLUSIONS

Although there are many choices available in the world of interior design—we may never have had greater access to a variety of raw materials and digitally cutting-edge surfaces—sometimes the most intriguing options are right in front of us. i.e., found in your neighbourhood supply store's racks. What are typically considered to be inexpensive construction materials (plywood, cinder blocks, etc.) can actually be made spectacular if placed on exhibit, as demonstrated by some of the best in the industry. The structure of a home is crucial. It's an opportunity to showcase your individual taste, whether you're redesigning or creating from scratch the interior of your house. To know what appears nice in a powder area, you don't need to be a qualified interior designer. A messy house is never inviting. Decluttering is the first step to making a place you enjoy returning to each day. Remove any furnishings, decorations, or even fabric that adds weight to your home and start fresh. It is a labour-intensive but inexpensive interior-design trick that gives the impression of room. Your house will appear larger, livelier, (and better!) with the help of a palette, some art behind the couch, and a stylish area carpeting. A gorgeously decorated house would be coveted by everyone. However, since money is a scarce resource, it's simple to begin believing that you simply lack the budget to make your house sparkle.

## REFERENCES

- IGBC Green interiors case study
- REVIEW OF INTERIOR DESIGN : University of Nairobi
- <https://www.jstor.org/page-scan-delivery/get-page-scan/1315877/0>