Indian Institute of Technology Gandhinagar

छात्रावास
Student Hostels

ड्ब्ल्यु.टी.पी. सबस्टेशन
WTP, Substation

केन्द्रीय विस्टा
Central Vista

शैक्षणिक क्षेत्र
Academic Area

WAYFINDING ON CAMPUS
THE PROCESS OF SIGNAGE DEVELOPMENT

WAYFINDING ON CAMPUS

THE PROCESS OF SIGNAGE DEVELOPMENT

Yogesh S. Dandekar

Amit Ambekar

Sudhir K. Jain

Harish P. M.

Shobhit Tayal

Marjorie Greene

Mouli Kethineedi

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Note:

Most of the text, drawings and graphic material in this publication were prepared by Tata Elxsi Limited and presented to IIT Gandhinagar in a series of reports and presentations in 2015. It is hoped that this publication will be of interest to design professionals as we as others interested in campus planning and development, and that it will also serves as a useful educational tool for students and young professionals.

All cost figures are given in Indian Rupees(INR), typically in crores
INR One crore= 10 Million = 100 Lakh; or INR 10,000,000

ILLUSTRATIONS/ PHOTO CREDITS
Gaurav Shukla and Tata Elxsi Limited

LAYOUT
Gaurav Shukla

FOREWORD

Once created, universities may last not just decades, but centuries. Hence, it is a rare privilege for anyone to participate in the process of creating a new university. Establishment of the Indian Institute of Technology Gandhinagar (IITGN) has enabled all of us associated with the Institute to innovate in creating curricula, organizing governance, and nurturing a unique culture and ethos of the Institute. The philosophy of education has been to push traditional boundaries with an emphasis on multi-disciplinary approaches and crosscutting thematic areas.

Just as the Institute endeavours to think out of the box for its academic programmes and governance, it has also been doing so for development of its 399 acre campus on the banks of the Sabarmati River. It is our firm belief that the physical environment makes a huge contribution to shape the processes of learning and knowledge creation. The campus has been conceptualized keeping in mind the long-term objectives as well as the present needs and immediate future. The guiding principles of the campus development have been

- An ambience that attracts visitors and conveys to them that they are on a university campus unlike any they have visited before.
- Functional convenience for the academic community for mutual interaction, learning and research.
- Low energy and resource consumption, as well as minimal upkeep and low maintenance costs.

The engagement of a large number of professionals and academics in brainstorming and in executing the design and construction has enabled us to introduce numerous innovations in the development of the campus. This publication is one in a series that explains the complex decision making, design, and construction process for the new campus. The publications in this series have been made possible because of several visits of Ms Marjorie Greene to IITGN as a Scholar-in-Residence. She worked to systematically compile the various materials presented here, collaborating with IITGN colleagues as well as our architects and consultants.

ABOUT THIS PUBLICATION: This publication reviews the signage design process developed for the campus of the Indian Institute of Technology Gandhinagar. The various types of signs were all designed by the Signage Design Consultant, M/s Tata Elxsi Limited, working as a consultant to IITGN for signage in the Housing and Hostel areas and roads and as a subconsultant to M/s Mitimitra Consultants Pvt. Ltd. in the Academic Complex. The process for selecting the design concept for the campus is presented, along with the types of signs appropriate for the different wayfinding needs.

Sudhir K Jain
Director and Professor
Indian Institute of Technology Gandhinagar

EXECUTIVE SUMMARY

Wayfinding Systems in Educational Institutes

Wayfinding is a term that refers to information systems to help people navigate through complex built environments. In ordinary circumstances people rely primarily on their intuition and familiarity with the space. However in more complex environments visual cues such as maps, directions and symbols are critical.

At IITGN there are multiple types of users using the campus for different purposes and with differing circulation patterns. The wayfinding system needs to cater to all users with equal importance.

The Wayfinding Strategy

The basic process of wayfinding involves four stages—orientation, route decision, route monitoring and destination recognition. The campus is a web of internal paths, perimeter and loop roads that connect the key facilities on campus. This interlinking pattern of roads creates many nodes that are the decisionmaking points in the wayfinding.

The Concept

The consultants presented four primary concepts to start with and developed them in further detail. 3D visualisations helped give the IITGN team a feel for each concept or theme, and aided in their selection of the best concept for the campus.

The four concepts presented were: Path to Glory (Zero to Infinity); The Gujarat Connection; Rivers and Ravines; and Touch of Technology. Each concept was presented initially in terms of principles embodied in the design as well as the inferences and design approach for each.

During meetings with the consultants and the IITGN community the choice of concept was narrowed to The Path of Glory and The Gujarat Connection. Further work on these two concepts resulted in a version 2 for each. To assist in visualising how the signage might look, different types of signs from these two concepts were placed in photos of the campus, which was still under construction at the time.

As part of the process of evaluating the two final options the consultants ranked the two versions in terms of durability, maintenance, cost effectiveness and suitability to the campus. To support their ratings they presented summary information on materials, colours, construction techniques, form, expected life and an estimated cost. Their ratings indicated that The Path of Glory version 2 was the most suited for the campus.

Key Features of the Signs

The consultants and the IITGN community specified characteristics important in the construction and maintenance of the signage. These included:

• Weatherproof, long lasting materials

• Modularity in structural support as well as the face of the sign

• Easy and affordable to replace content

• Uniformity in sign design language

• Value engineering

• Simple construction methods

This is perhaps one of the first times that such a project addressing wayfinding signage has been taken up by an IIT, with a focus on developing a specific design that uniquely represents the campus. It is hoped that describing the process in this level of detail will prove useful to other universities and large institutions.

ACKNOWLEDGEMENTS

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Duven, Emiet

→ एल्बान, फिरपील
Albaan, Firpeal

Hostel Directional Signage

Wayfinding Systems in Educational Institutes

1

1.1. Need for wayfinding systems

Wayfinding is a term that refers to information systems to help people navigate through complex built environments and is therefore an essential component of the overall experience of the space. In ordinary circumstances people rely primarily on their intuition and familiarity of space syntax for wayfinding. However in more complex environments visual cues such as maps, directions, and symbols are crucial. Such aids not only relieve stress but contribute to a sense of well-being, safety, and security associated with the space.

IIT Gandhinagar is an institute of national importance, and hundreds of new users join every year. Wayfinding systems must help them navigate with a sense of comfort and trust.

1.2. References & case studies

Educational institutes all around the world place a priority on wayfinding systems. Signages are typically modular in nature (Figure 1).

Figure 1. Signages at educational institutes

1.3. User impact

At the Indian Institute of Technology Gandhinagar (IITGN) there are multiple types of users, using the campus for different purposes and with differing circulation patterns. The wayfinding system needs to cater to all users with equal importance, keeping their requirements in mind.

There are 6 major categories of users on campus that can be divided into two clear types- permanent and temporary users. The wayfinding system is designed in such a manner that it will cater to the requirements of both. Figure 2 shows the six major user categories.

Figure 2. User analysis

Directional Signage for Academic Complex

The Wayfinding Strategy

2.1. Wayfinding System Principles

The basic process of wayfinding involves four stages:

1. Orientation is the attempt to determine one's location, in relation to both objects that may be nearby and to the desired destination.

2. Route Decision is the selection of a course of direction to the destination.

3. Route Monitoring is checking to make sure that the selected route is heading towards to the destination.

4. Destination Recognition is when the destination is recognised.

2.2. Movement around Campus

The campus site is divided into two separate sections, with the small village of Palaj in between. On the eastern side the new highway forms the boundary and on the western side is the Sabarmati River.
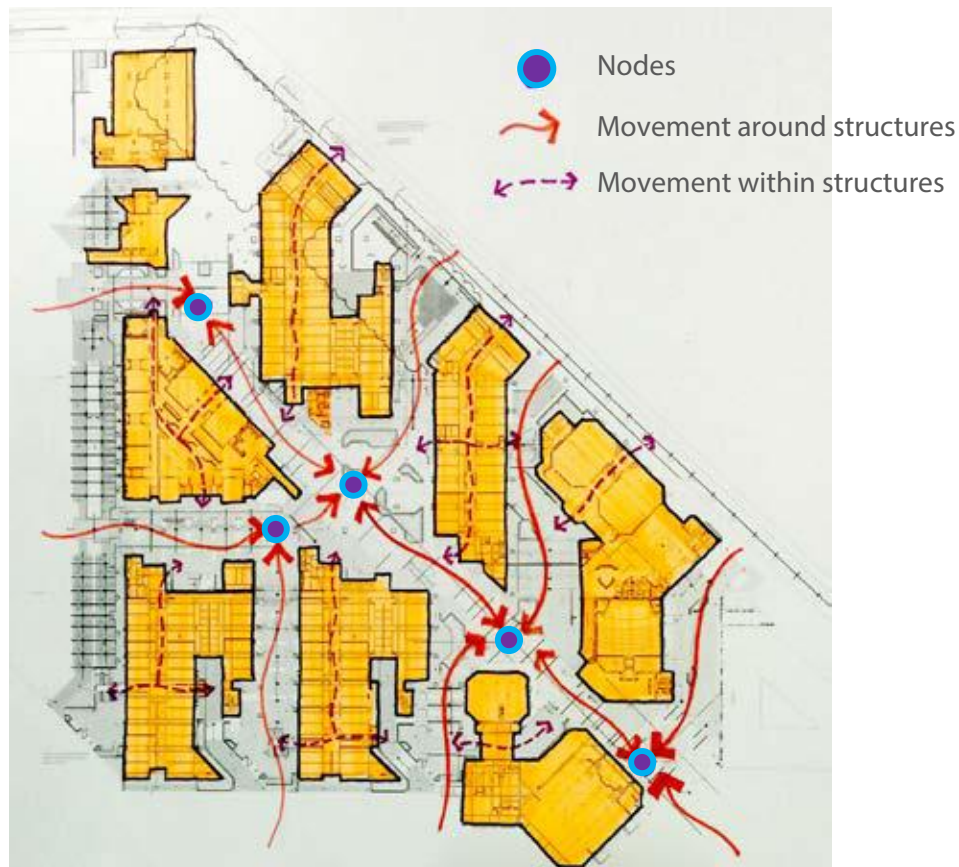

Nodes

Movement around structures

Movement within structures

Figure 3. User movement in academic campus

2.3. The Strategy

The campus is a web of internal paths, perimeter and loop roads that connect the key facilities on campus (Figure 3). This interlinking pattern of roads creates many nodes that are the decision-making points in the wayfinding. The Tata Elxsi team, selected as the wayfinding signage consultant, addressed these nodes as a priority in developing the wayfinding strategy (Figure 4).

Figure 4. Important nodes on campus

One of the first steps taken by the consultant was to develop a basic mapping of the campus in terms of hierarchy and interaction, identifying where signage would be most appropriate and what type would be needed. The consultant was originally brought in by the architects for the Academic Complex, M/s Mitimitra Consultants, specifically to focus on signage in that area of the campus. Figure 5 shows the basic mapping for the Academic Complex. Once the IITGN leadership saw the role and importance of the signage in this part of the campus, they asked for a separate contract with the consultant to focus more broadly on a wayfinding system for the entire campus.
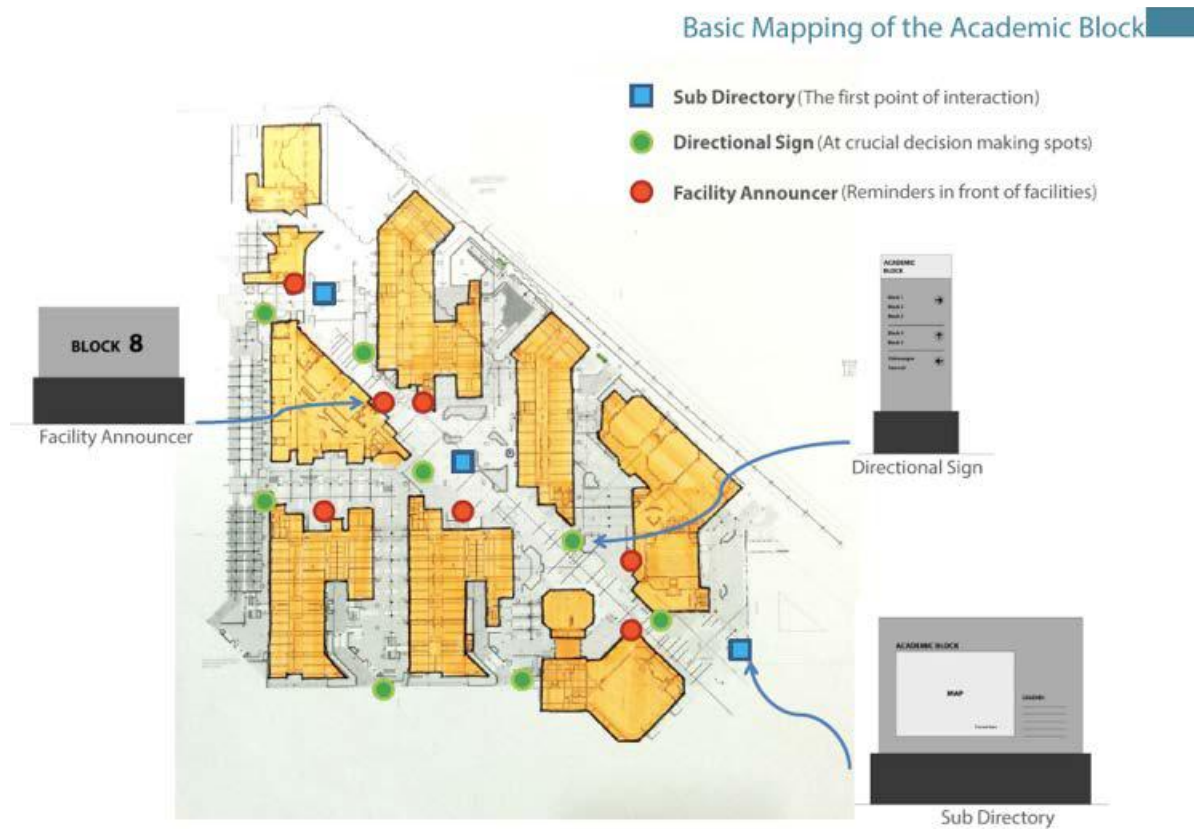
Figure 5. Basic Mapping of the Academic Complex

They also developed a hierarchy of sign types, which for the Academic Complex is shown in the table below.

Table 1: Hierarchy of Sign Types

Subdirectory (Academic Block Map)
Informational Kiosks
Directional Signs
Self-standing (around structures)
Ceiling-hung (corridors)
Surface
Wall-projected
Facility Announcers
Surface
Self-standing
Utility Signs
On door
Wall surface
Wall-projected
Statutory signs

Path of Glory
Signage System

The signages of the campus are envisioned to be aspirational and modern, yet simple and robust. The angles and three-dimensionality of the signs are derived from a perspective view of a path leading to the horizon indicating towards bright future.

गौरवपूर्ण मार्ग–संकेतक प्रणाली

परिसर के मार्ग–संकेतक आकांक्षात्मक और आधुनिक होने के साथ–साथ मजबूत और सरल भी हैं। मार्ग संकेतकों के कोण और उनका त्रिविमीय आकार क्षितिज की तरफ बढ़ने का संकेत है जो उज्जवल भविष्य को दर्शाता है।

Explaining the Signage system

3   *The Concept*

The campus architecture "excites many flavours", in the words of the consultant, who then used these "flavours" as guiding factors for the wayfinding system.

3.1. Array of Concepts

The consultant presented four primary concepts to start with and developed those in further detail. 3D visualisations helped give the IITGN team a feel for each concept and aided in their selection of the best concept for the campus.

For each concept the consultant developed some basic principles that embodied the concept or theme. They then identified some inferences—words and pictures that symbolised the concept, and then identified further words and images that reflected the design approach for each. These were presented prior to presenting design sketches and the design derivation for each of the four concepts. Each concept is presented below, with the words and images that embodied each.

3.1.1. Concept 1: Path of Glory (Zero to Infinity)

The basic principles that embody this concept are listed here and illustrated in Figure 6.

The Learning Path

- Wayfinding system that inspires
- Promotes interaction between faculty and students
- Inculcates the spirit of IIT in students

Figure 6. Path of Glory

The inferences and design approach, with associated words and ideas, are shown in Figures 7 and 8.

Figure 7. Inferences for the Path of Glory

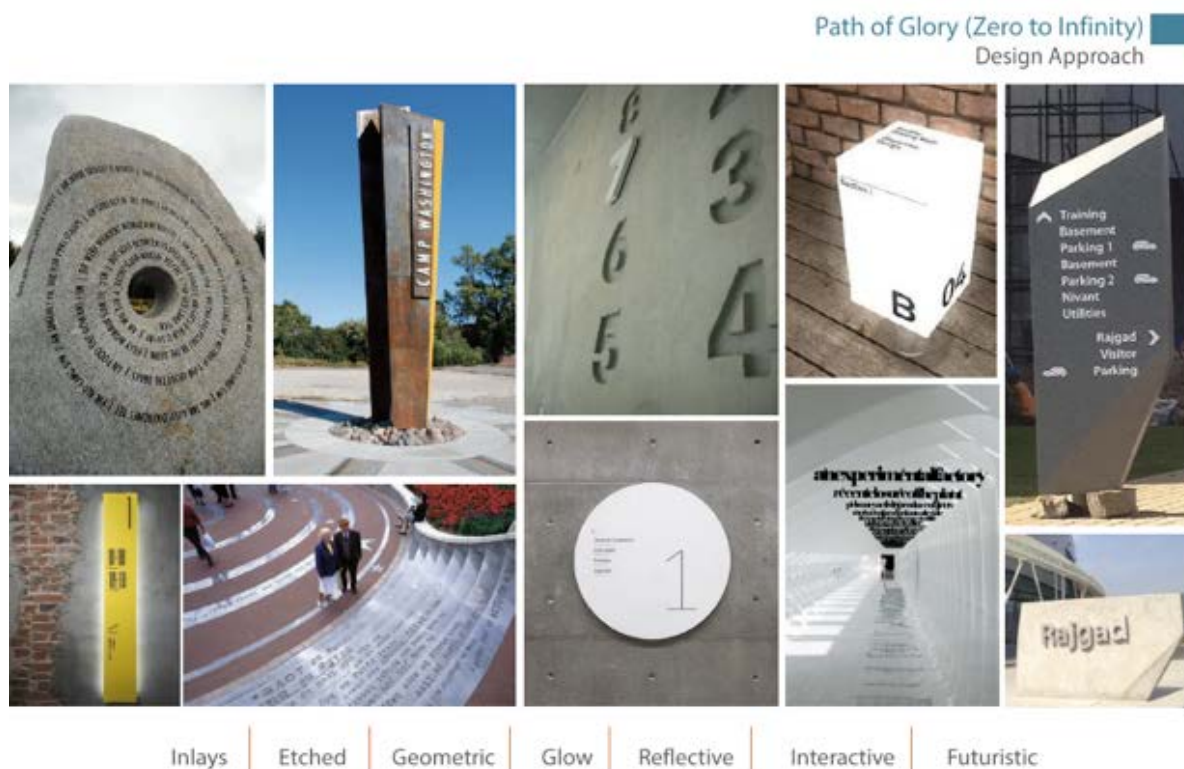**Figure 8. Design Approach for the Path of Glory**

Some of the images and ideas from the inference and design approach were then used in the initial sketches for the signage for this concept (Figure 9). Figure 10 shows the initial visualisations of the signage for this concept.
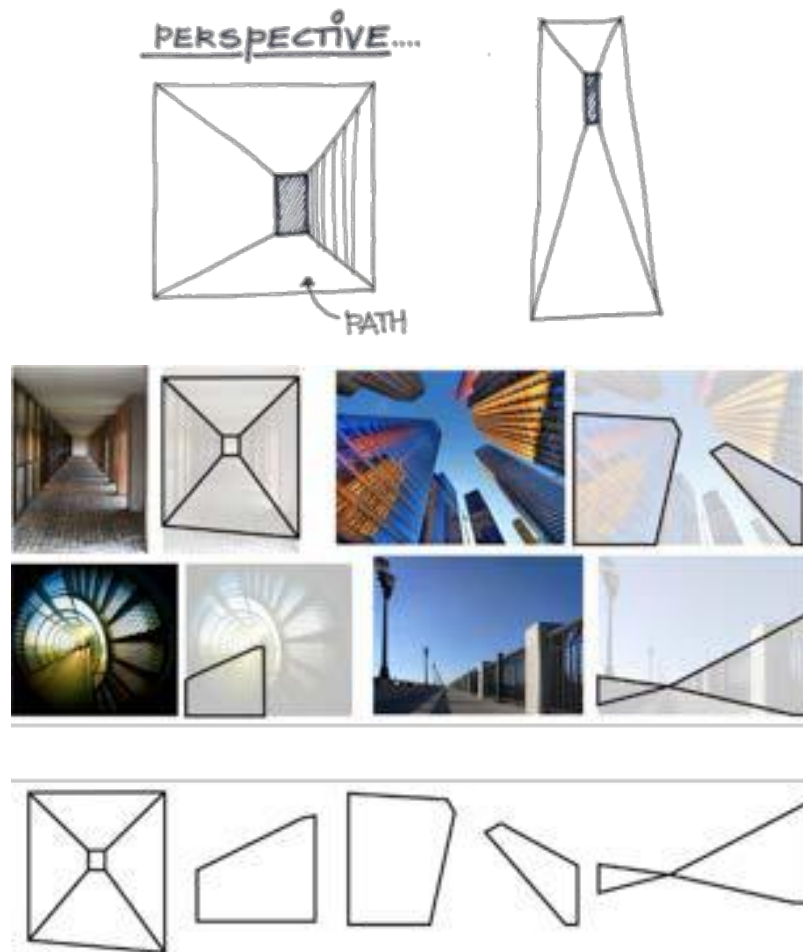

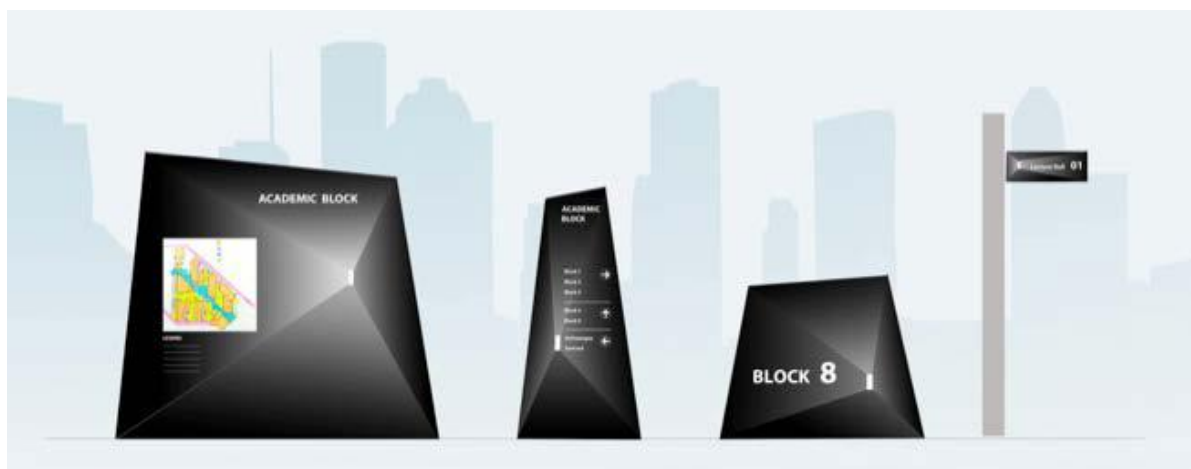**Figure 9. Initial sketches for the shapes of Path of Glory signage**

Figure 10. Initial visualisations of Path of Glory signage

3.1.2. Concept 2 : The Gujarat Connection

The basic principles that embody this concept are listed here and illustrated in Figure 11.

Age-old glory of Gujarat

- The effervescent architecture and the romance with colours.
- Narrow shaded lanes and the surprise element of open community spaces.
- Internal courtyards and terraces.
- Common facilities and landscapes act as interaction points.

Concept 2: *Option 1*

This option takes inspiration from the heritage architecture, colorful textiles and rich handicraft traditions in Gujarat state.

The Gujarat Connection

Age Old glory of Gujarat.
• The effervescent architecture and the romance with colors.
•Narrow shaded lanes and the surprise element of open community spaces.
• Internal courtyards and terraces.
•Common facilities and landscapes act as interaction points.

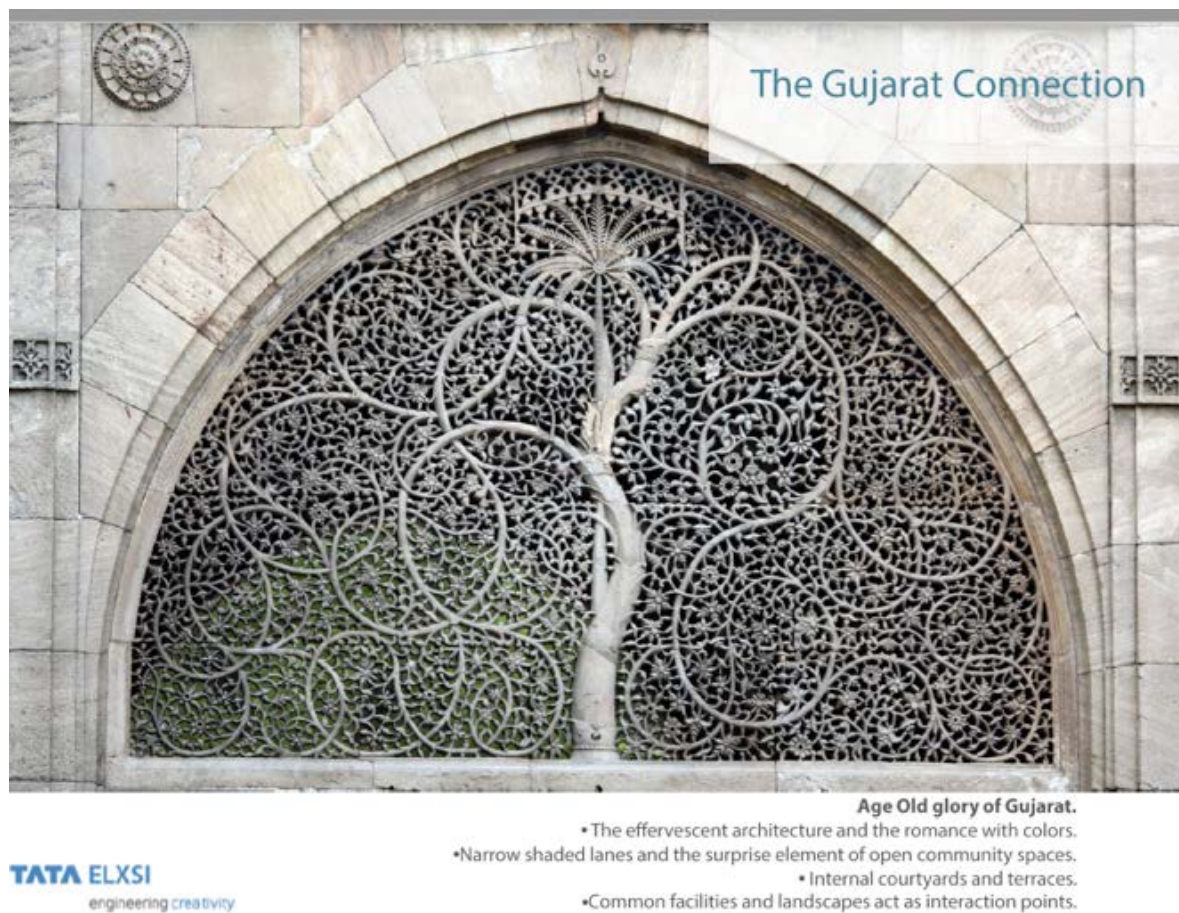TATA ELXSI
engineering creativity

Figure 11. The Gujarat Connection

The inferences and design approach for this concept, with associated words and ideas, are shown in Figures 12 and 13.

The Gujarat Connection
Inferences

Historical | Colorful | Craft | Community | Narrow lanes | Chowks | Pol houses
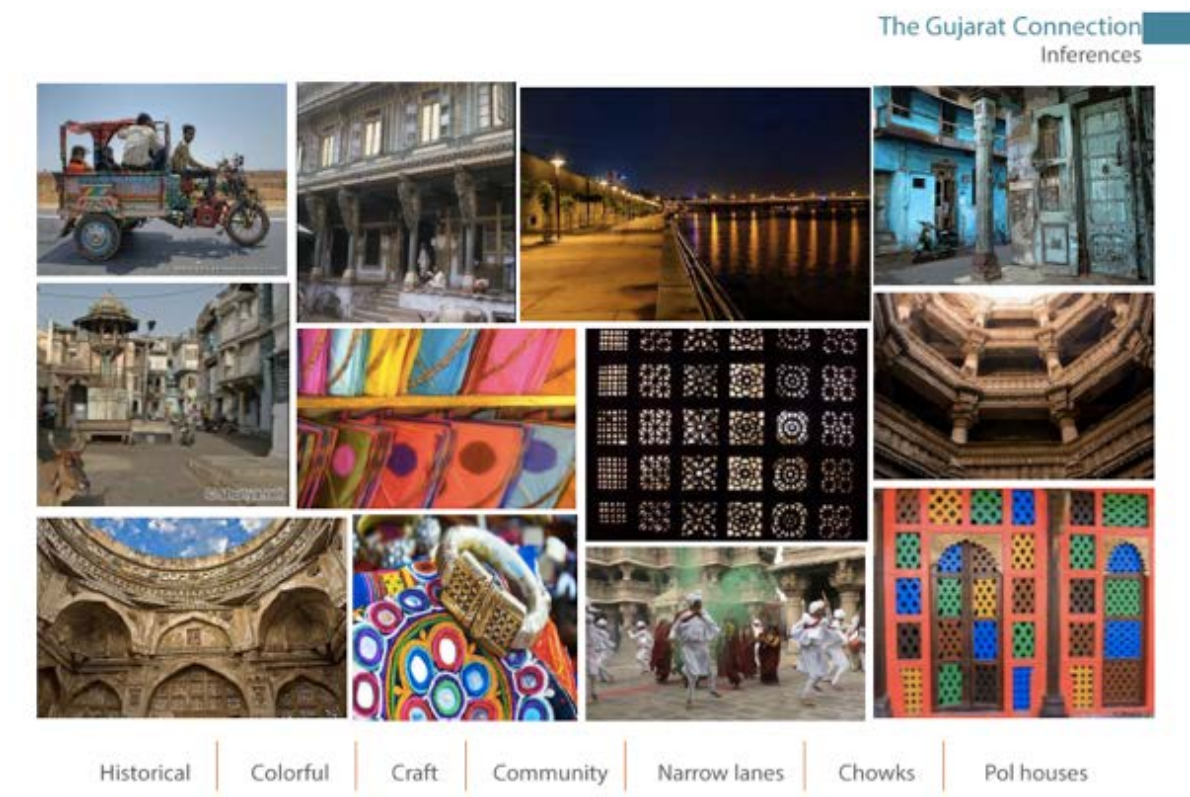
Figure 12. Inferences for The Gujarat Connection

The Gujarat Connection
Design Approach

Engineering 1
Engineering 2

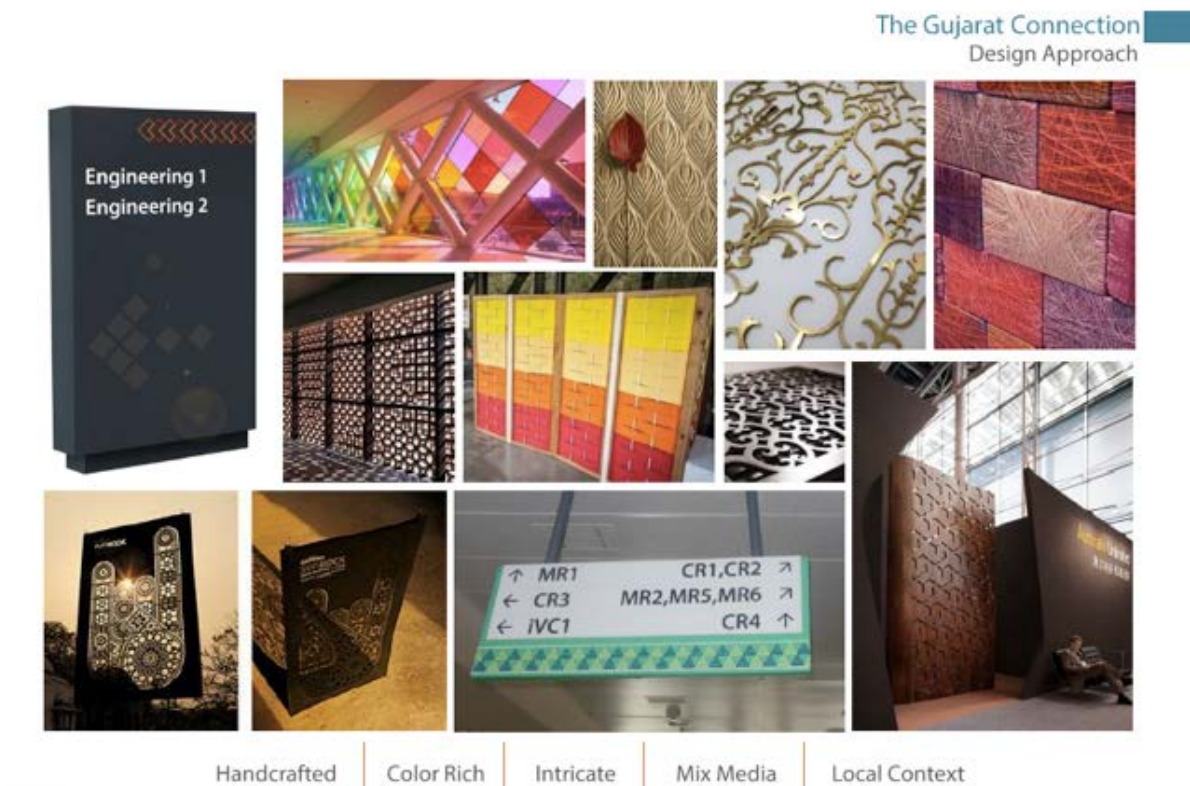Handcrafted | Color Rich | Intricate | Mix Media | Local Context

Figure 13. Design Approach for The Gujarat Connection

11

Further development of the images and ideas from the inference and design approach resulted in the initial sketches for the signage for this concept, as illustrated in Figure 14. The initial visualisations of the signage for this concept are shown in Figure 15.
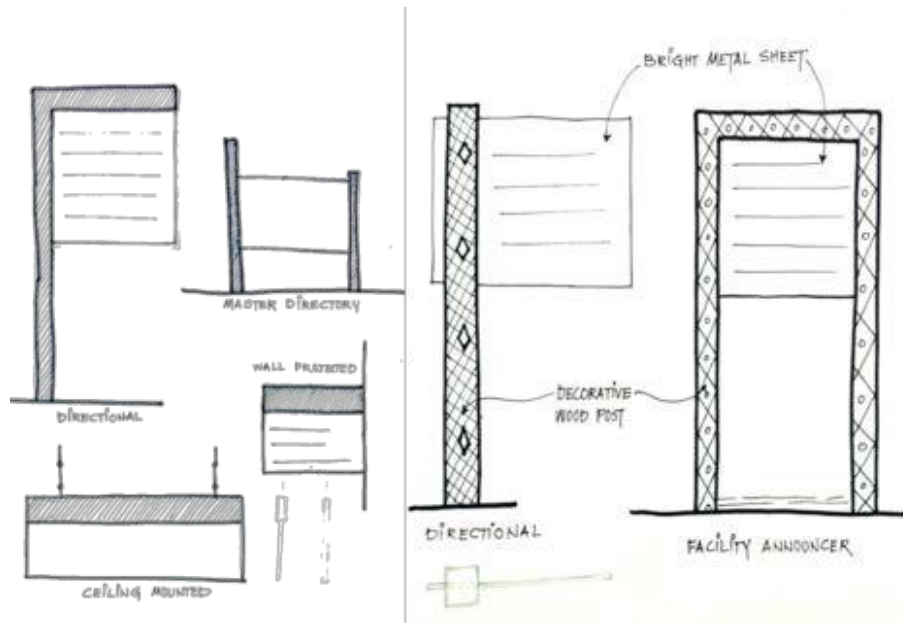
Figure 14. Initial sketches for the Gujarat Connection concept

Figure 15. Initial visualisations of the Gujarat Connection signage

3.1.3. Concept 2: Option 2

The Gujarat Connection was modified in a second option, taking its inspiration from the very famous stepwells found in Ahmedabad as well as throughout Gujarat. Figures 16 and 17 show initial sketches and visualisations.

Figure 16. initial sketches of variation 2 for the Gujarat Connection, drawing more on the stepwells for inspiration

Figure 17. Initial visualisation of the Gujarat Connection, Option 2

3.1.4. Concept 3: Rivers and Ravines

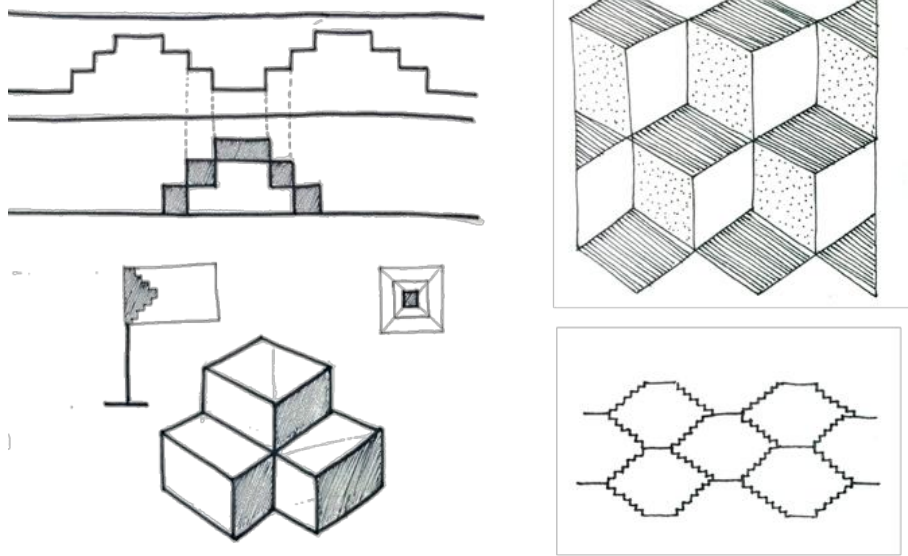The River and Ravines concept was the third concept explored by the consultants, taking inspiration from the curvy terrain that a river creates along its course. The basic principles exemplified by this concept are listed here and illustrated in Figure 18:

Elixir of Human Civilisation

- River has always inspired creativity
- The geography of the campus is defined by the Sabarmati
- River and ravines are part of the Masterplan

Figure 18. Rivers and Ravines: Elixir of Human Civilisation

Figures 19 and 20 show the inferences and design approach for this concept, with associated words and ideas.

Rivers & Ravines
Design Approach

Flow | Force | Lifeline | Historic | Nature | Persistent
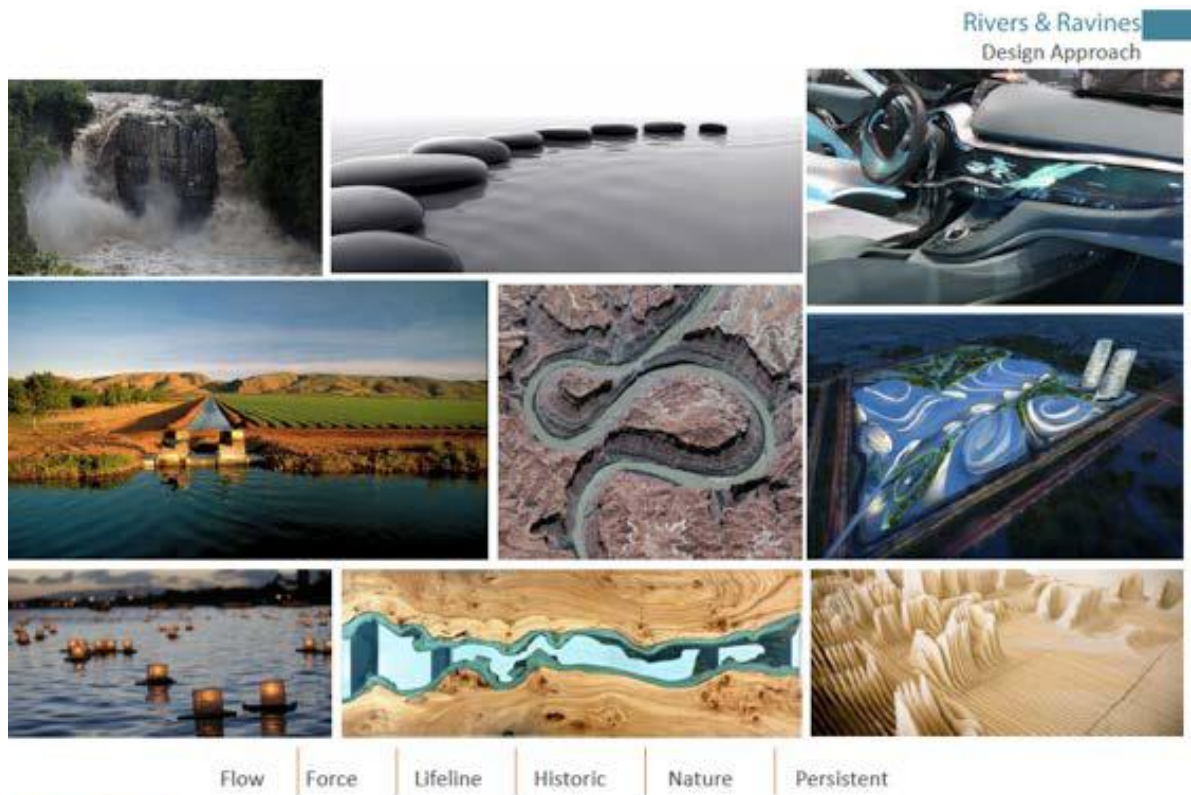
Figure 19. Inferences for Rivers and Ravines

Rivers & Ravines
Design Approach

Organic | Stones | Undulations | Earthy | Glass
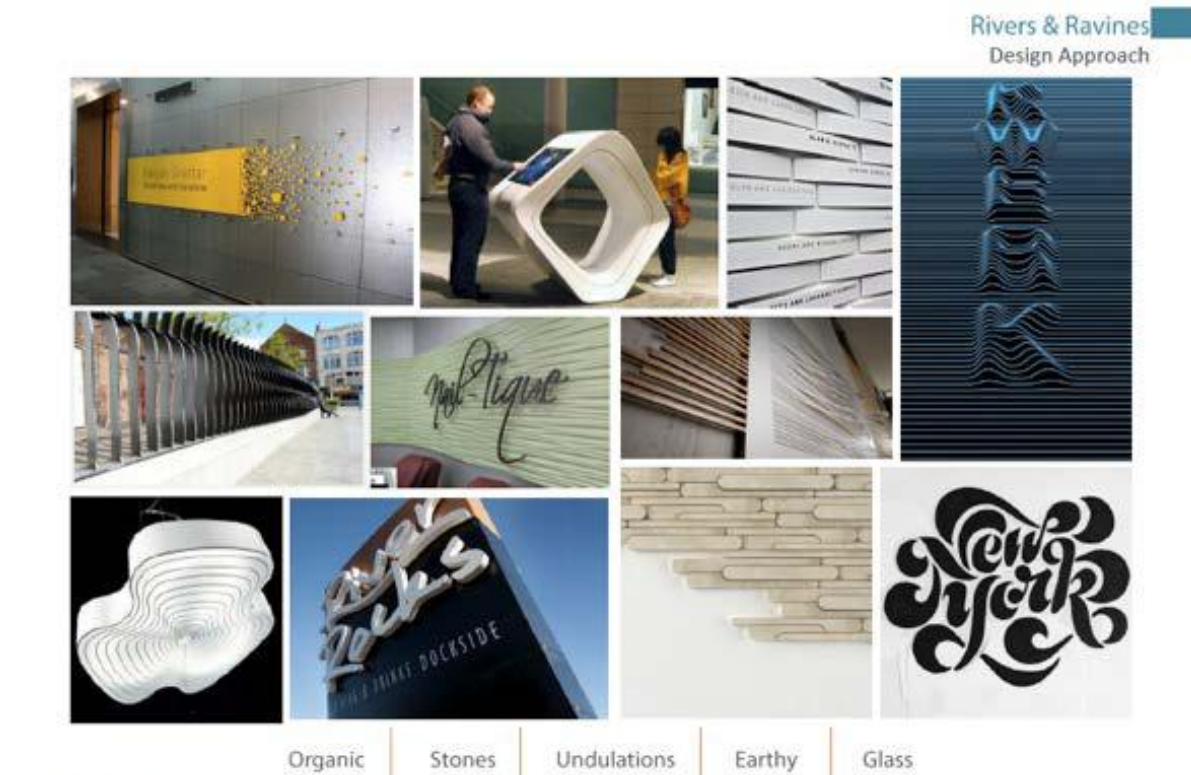
Figure 20. Design Approach for Rivers and Ravines

The curvilinear lines of a river were further developed into sign panel textures (Figure 21). Figure 22 shows the sign structures family that would result with this option.
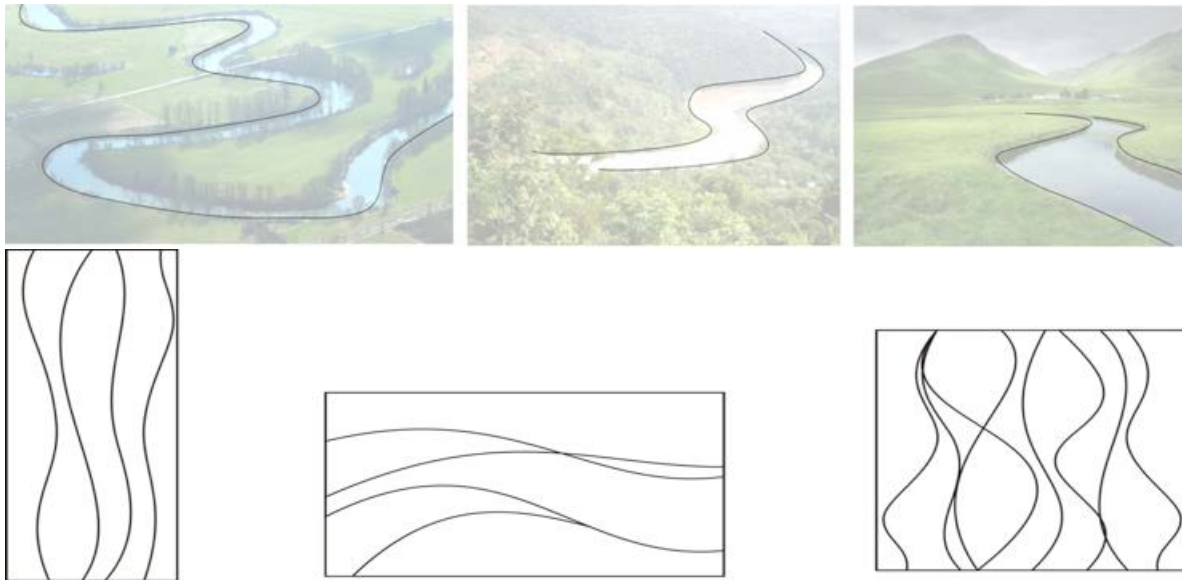
Figure 21. Curvilinear lines of a river developed into sign panel texture
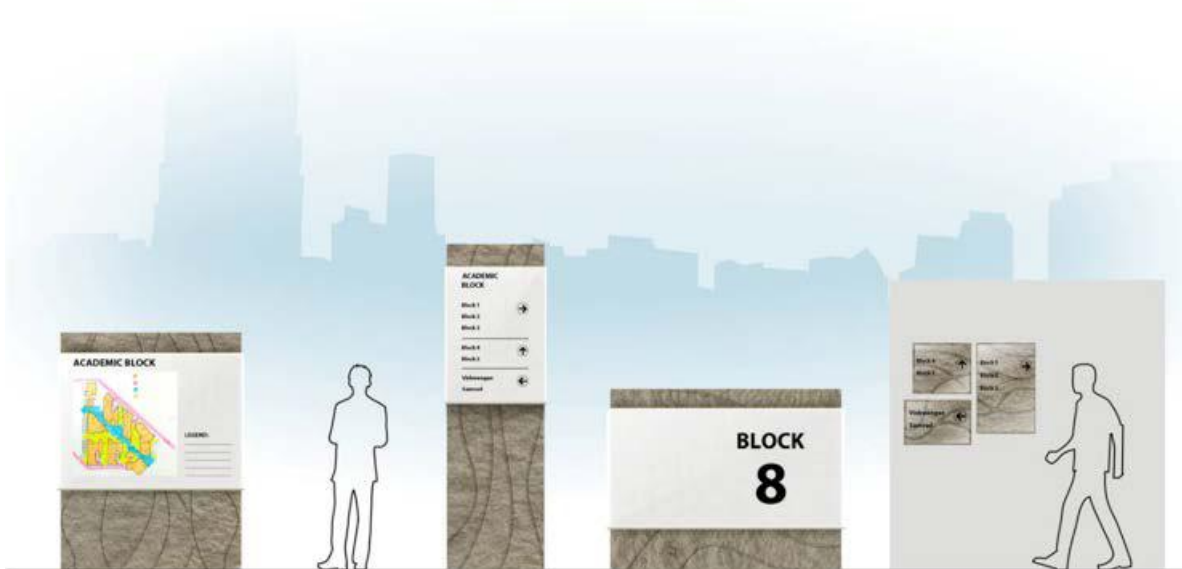
Figure 22. Sign Structure Family for River and Ravines concept

3.1.5. Concept 4 : Touch of Technology

The fourth concept explored by the consultants was one they entitled Touch of Technology. The basic principles that embody this concept are illustrated in Figure 23 and listed here:

The Fuel to Modern Times

- Catalyst to an easy and comfortable life
- Keeping you up-to-date
- Promotes Interaction between user and the sign

Figure 23. Touch of Technology

Figures 24 and 25 on the next page show the inferences and design approach for this concept, with associated words and ideas.
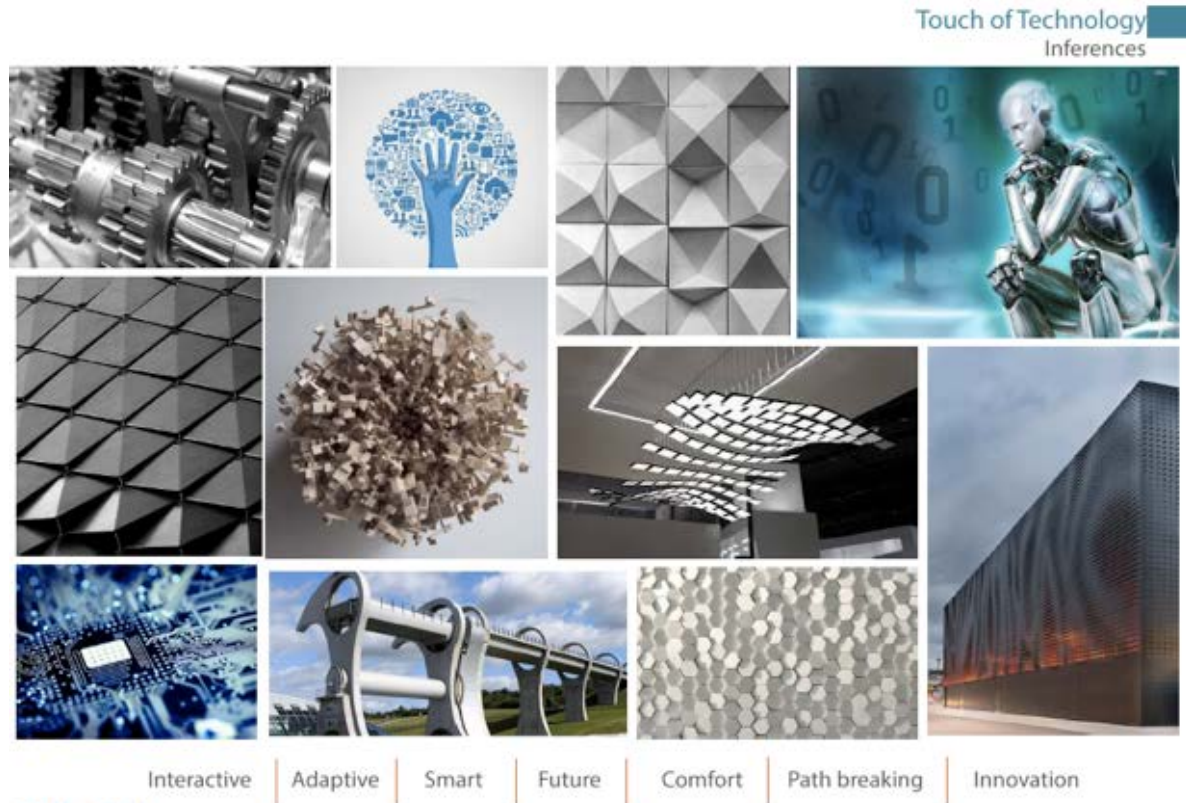
Figure 24. Touch of Technology Inferences
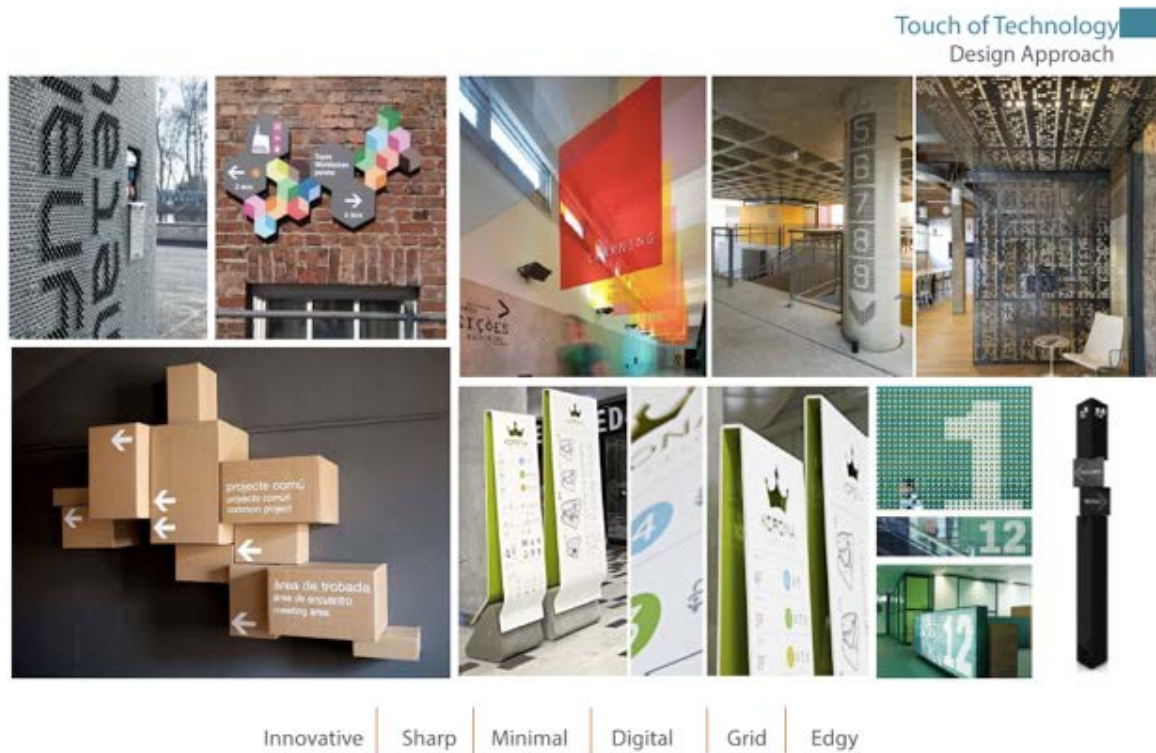
Figure 25. Touch of Technology Design Approach

Some of the initial sketches for this concept and the sign structure family associated with the concept are illustrated in Figures 26 and 27.
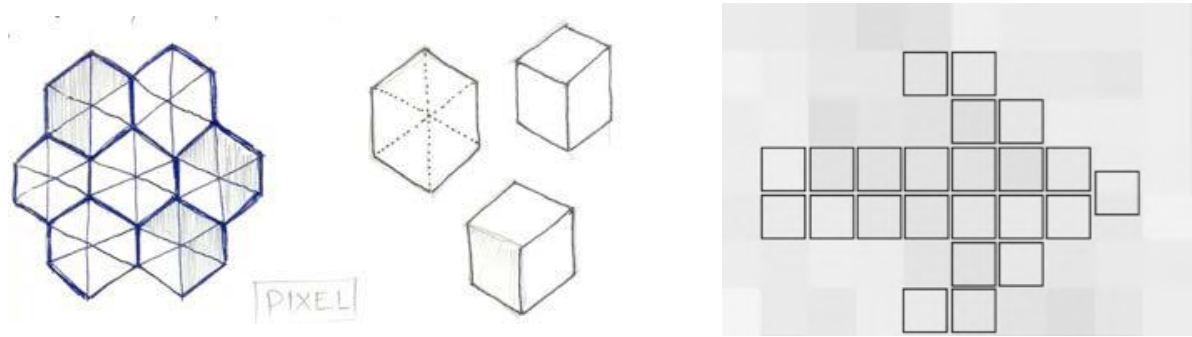
Figure 26. Initial sketches for Touch of Technology
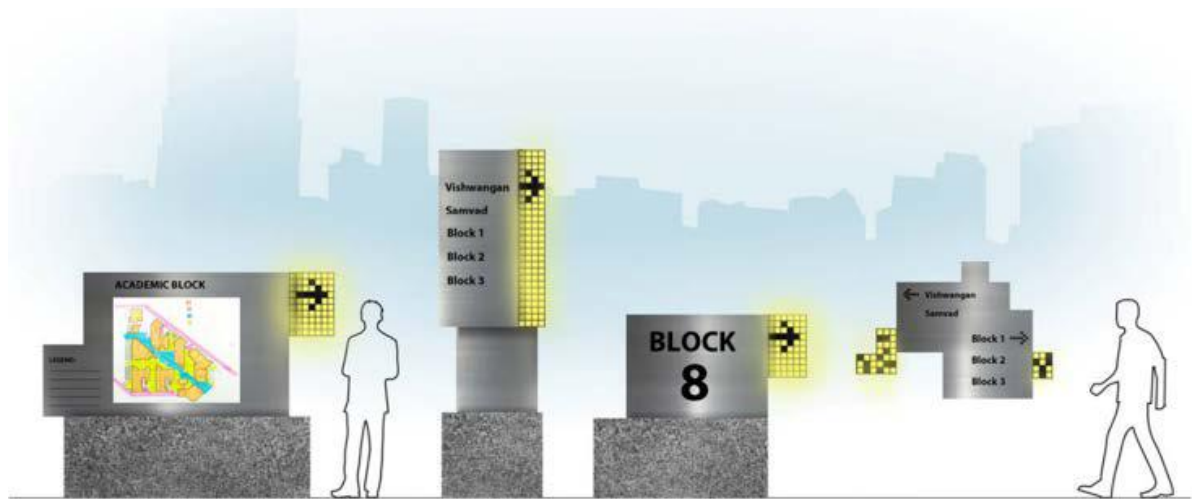
Figure 27. Sign structure family for the Touch of Technology concept

3.2. Further visualisations

During meetings with the consultants and the IITGN community, the choice of concepts or themes was narrowed to The Path of Glory and The Gujarat Connection. Further work on these two concepts resulted in a version 2 for each. To assist in visualising how the signage might look, different types of signs from these two concepts were placed in photos of the campus, which was still under construction at the time. Examples of these are in Figures 28 and 29.

Figure 28a. Example of how sign from Path of Glory concept (v.2) would look on the new campus

Figure 28b. Another illustration of Path of Glory (v.2) signage

Figure 28c. Third example of how signs from Path of Glory concept (v.2) would look on the new campus

Figure 28d. Fourth example of how signs from Path of Glory concept (v.2) would look on the new campus

Figure 29a. Example of how sign from the Gujarat Connection (v.2) would look on the new campus

Figure 29b. Another illustration of The Gujarat connection (v.2) signage

Figure 29c. Third example of how signage from The Gujarat Connection (v.2) would look on the new campus

Figure 29d. Fourth example of how signage from The Gujarat Connection (v.2) would look on the new campus

3.3. Design and cost evaluations

As part of the process of evaluating the two final options – The Path of Glory and The Gujarat Connection, the consultants ranked the two versions of each of these options. They scored the options on durability, maintenance, cost effectiveness and suitability to the campus. To support their ratings they presented summary information on materials, the colours, the construction techniques, the form, its expected life, and an estimated cost. The calculated project cost was for the Academic Complex and overall campus, but excluded the housing and hostel areas. The next four figures (Figures 30-33) show how versions 1 and 2 of Path of Glory and The Gujarat Connection were rated in this process. The consultants' ratings indicated that Path of Glory version 2 was the most suited for the campus.

To aid in the process of evaluation, the consultant developed several wayfinding scenarios—one, for a visitor attending a seminar on campus, and two, for the parents of a student, visiting for a day. Each scenario identified all the steps the visitor would need to take to come to the final destination, and which signs of what type(s) would be helpful in moving the visitor along this path.

Figure 30. Cost Analysis and Comparison of the Concepts—Version 1, Path of Glory

Path of Glory
Version 2

Tata Elxsi: The unique design language and longevity makes it the most suited Way finding solution

★ **Pedestrian Direction Sign – INR 38,000**

Tentative Total Project Cost – INR 95,16,300

*All figures are tentative and based on basic thumb rule principles

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Factor		Rating
Durability		★ ★ ★ ★ ★
Maintenance		★ ★ ★ ★
Cost Effective		★ ★ ★
Suitable to Campus		★ ★ ★ ★

5

Path of Glory
Version 2

How we have rated it:

★ ★ ★ ★

Materials:
- Pre-cast Concrete members, Aluminium powder coated sheets , Aluminium cut letters

Colours:
- black anthracite color along with the exposed concrete material gives a premium and strong look.
- the rugged exposed concrete helps the sign to merge with the existing architecture and bold black color helps to recognize the sign at any point.

Construction Technique:
- Manufacturing process will require a little bit of engineering.
- The precast exposed concrete members will be produced off site with a skillful labour.

Form:
- Dynamic form of the signs is derived from the perspective lines which gives unique identity to the way finding skyline.

Life:
- Long lasting life as it uses weatherproof materials like exposed concrete and powder coated aluminum sheets.
- Aluminium cut letters used for text and External grade 3M brand vinyl stickers will be used for maps to extend the sign content life or more permanent processes can be used.

Cost:
4 / 5

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6

Figure 31. Cost Analysis and Comparison of the Concepts—Version 2, Path of Glory

The Gujarat Connection
Version 1

Tata Elxsi: The simple, geometrical design is cost effective and fabrication friendly.

★ **Pedestrian Direction Sign –** INR 40,000

Tentative Project Cost – INR 96,02,000

★ All figures are tentative and based on basic thumb rule principles

Factor		Rating
Durability	💪	★ ★ ★ ★ ★
Maintenance	🔧	★ ★ ★ ★
Cost Effective	🪙	★ ★ ★
Suitable to Campus	♡	★ ★ ★

7

The Gujarat Connection
Version 1

How we have rated it:

★ ★ ★
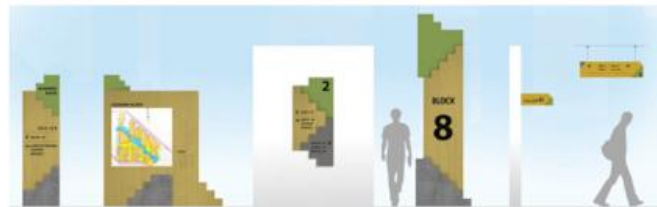
Materials:
- Texture plastered brick wall, R.C.C. base, powder coated aluminium sheets, metal cut letters

Colours:
- Bright colours inspired from Gujarat step wells helps the sign to stand out in any corner of the site.
- Concrete base of the sign helps in merging the bulky base with the ground.
- Top end portion of the signs will have the same color for that particular area.

Construction Technique:
- The signs should be constructed on site with good amount of precision.
- The sign structures are easy to construct.

Form:
- These signs hosts a linear and simple form which symbolizes step well of Gujarat.
- The overall structure of the sign is typical but the continuing steps adds character to the signs.

Life:
- Life of the sign will be good, as the signs constructed out of building construction materials.

Cost:
4 / 5

Figure 32. Cost Analysis and Comparison of the Concepts—Version 1, The Gujarat Connection

The Gujarat Connection
Version 2

Tata Elxsi: The design language relates with local flavor as well as gives a premium look.

★ **Pedestrian Direction Sign – INR 53,000**

Tentative Project Cost – INR 1,37,70,500

* All figures are tentative and based on basic thumb rule principles

Factor		Rating
Durability	💪	★ ★ ★ ★ ★
Maintenance	🔧	★ ★ ★
Cost Effective	💰	★ ★
Suitable to Campus	♡	★ ★ ★

The Gujarat Connection
Version 2

How we have rated it:

★ ★ ★

Materials:
- M.S. framework, R.C.C. base, powder coated aluminium sheets, water jet cut aluminium sheets, 3D letters

Colours:
- Bright, rich looking anodized colours of the structure contrasts well with the each other.
- Text is in black which helps in easy reading of message panels.

Construction Technique:
- The central metal boxing is wrapped with water jet cut aluminium sheets.
- The process of water jet cutting can be replaced with other simpler techniques to reduce the cost.

Form:
- The outer form is kept minimal to suit institutes requirements. It takes a cue from the step wells of Gujarat, But the application is very modern in appeal.
- The linear sign structure with the *jaaliwork* highlights its connection with local architecture.

Life:
- Weatherproof materials and techniques are used achieve long life of the structures.

Cost:
2.5 / 5

Figure 33. Cost Analysis and Comparison of the Concepts—Version 2, The Gujarat Connection

3.4. Concept evolution

After further discussion and meetings with the IITGN community, the Path of Glory was selected as the wayfinding concept to use for the new campus. The concept revolves around the hard path taken up by IIT students to achieve their goals in life. IIT is all about hard work, dedication and innovation. The journey at IITGN starts with the zero and takes one to infinity. The Path to Glory concept can be thought of as a derivative of the journey that each student undergoes in the process of learning. As mentioned earlier, the inferences that speak about the concept are – Journey, Grand, Legacy, Leadership and inspiring. Figure 34 shows some of the initial sketches developed for this concept, while Figure 35 shows how some of these sketch shapes are further developed in the design. Figure 36 then shows how the concept evolves into signs.
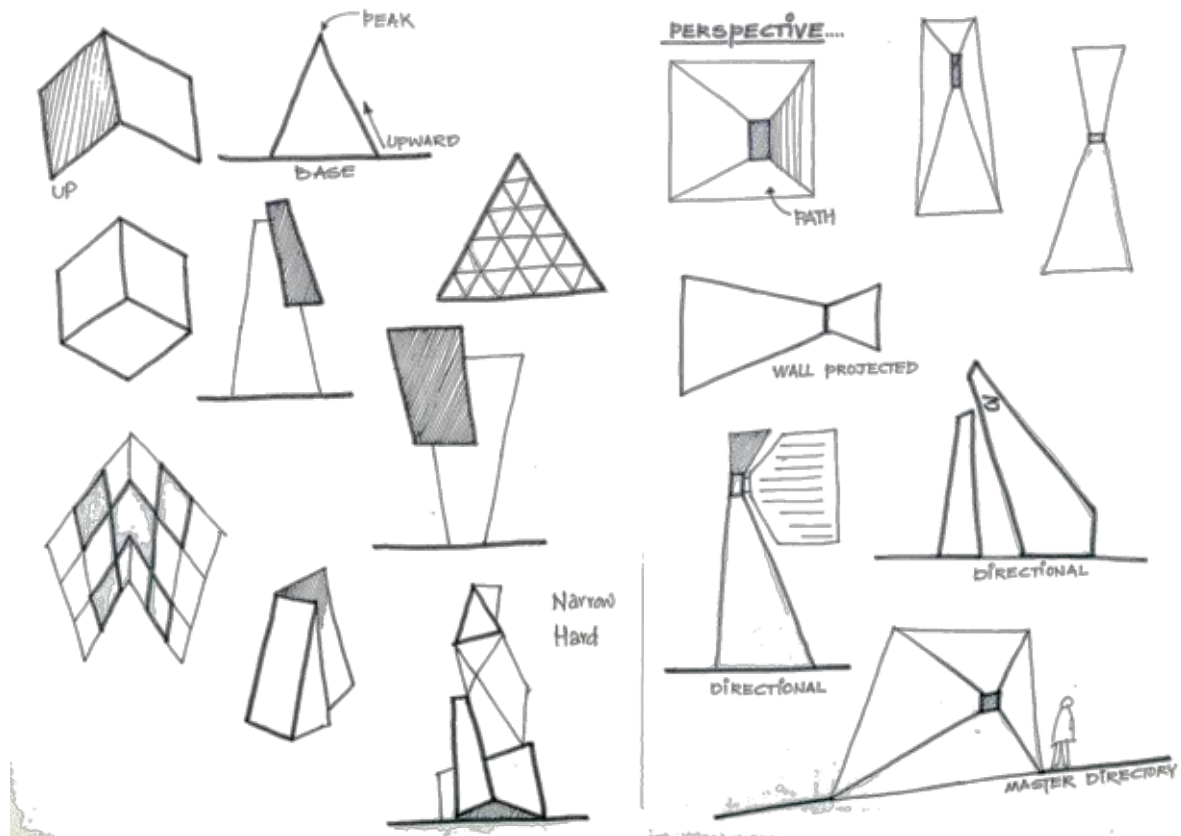
Figure 34. Initial sketches
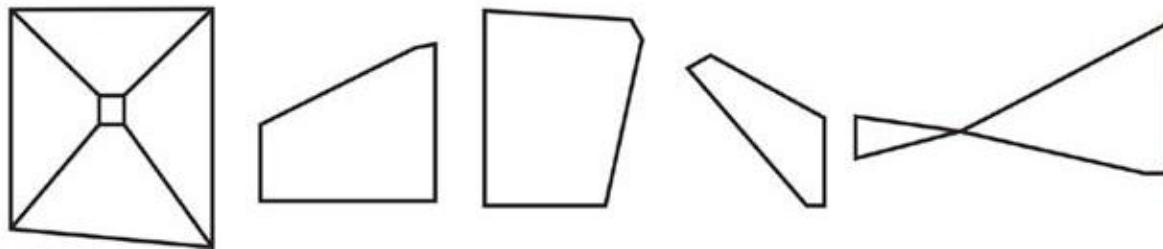
Figure 35. The visual interpretation of the student's journey is shown through these perspective views
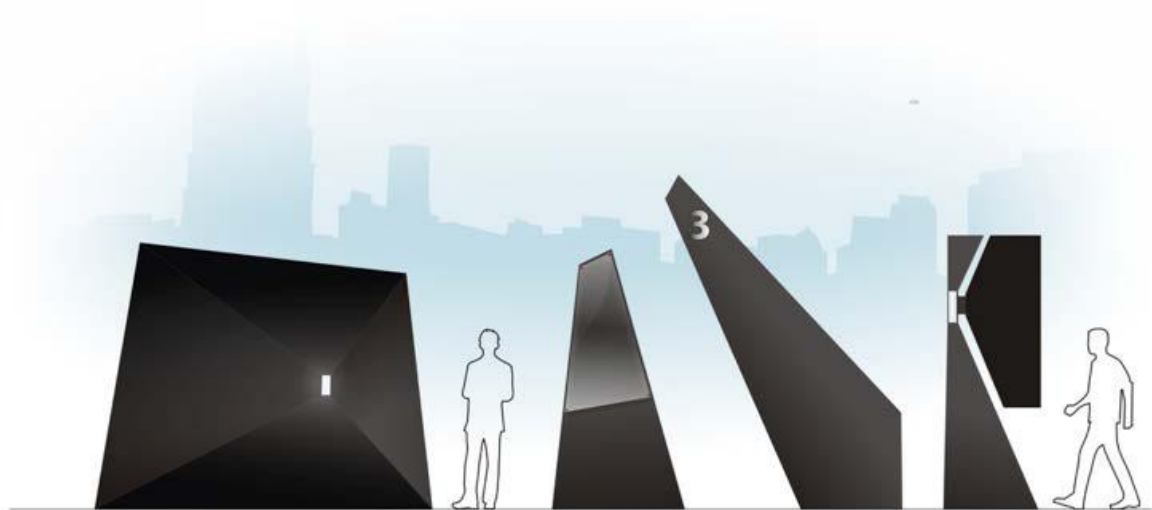
Figure 36. Concept Evolution

3.5. Design application

The evolution of the signage forms against the skyline is based on the idea of converging to a point and representing the perspective seen every day. To complement the exposed infrastructure, concrete is used as an accent material throughout the signage. Use of black as a base/primary colour is essential to ensure readability in the bright sunny environment without being harsh on the eyes of the onlookers. A sharp form in the signage accentuates the idea of convergence and perspective throughout the entire skyline (Figure 37).

Figure 37. Signage skyline
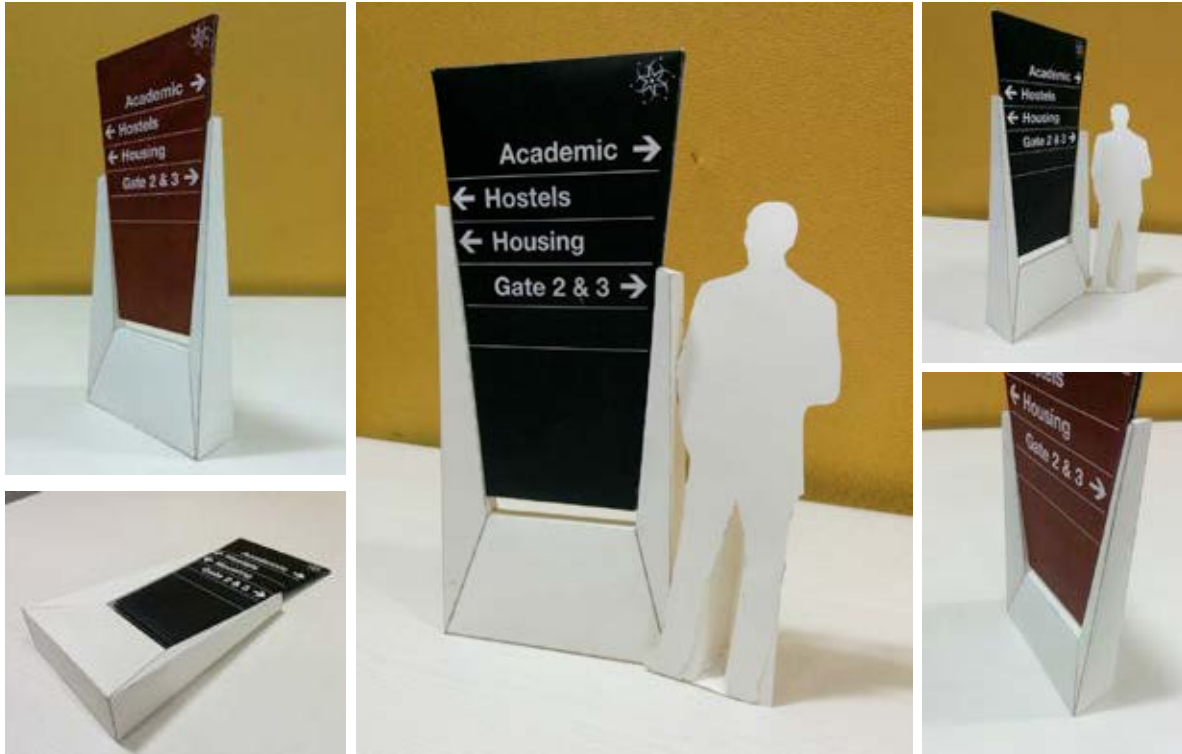
Figure 38. Concept Evolution

Scaled-down paper models were made before finalising the form to test readability and the overall feel that the signs create in a three dimensional space (Figure 38). All the icons used in the signage were developed keeping in mind the theme and using similar converging lines with a sharp overall form (Figure 39).

Figure 39. Icons for signage, designed within the concept parameters

आवास ब्लॉक
Housing Blocks
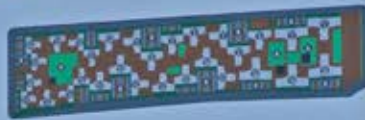
You Are Here
Light
Parking

← आवास ब्लॉक 6
Housing Block 6

↑ आवास ब्लॉक 5–26
Housing Blocks 5-26

आवास ब्लॉक 25 →
Housing Block 25

Directional Signage within Housing Blocks

4 Key Features

The consultant and the IITGN community specified characteristics important in the construction and maintenance of the signage.

- Weatherproof with long lasting materials for the harsh outdoor environment
- Modularity in structural support as well as the face of the sign
- Easy and affordable to replace content
- Uniformity in sign design language
- Value engineering
- Simple construction methods

4.1. Materials

Exposed concrete and sheet aluminium are the two main materials used in the entire range of signs. Exposed concrete represents the harsh ambience and complements the exposed infrastructure of the campus. Concrete in its raw state is resistant to abrasion and gives a timeless look aesthetically.

Sheet aluminium, the other material on the signs, is easy to bend and manufacture and also is corrosion-resistant, thus making it an appropriate choice of material (Figure 40).

Figure 40. Material palette—exposed concrete and sheet aluminum

4.2. Construction techniques

All signs have been designed in a way that they can be constructed off-site thus avoiding any disturbances due to construction activities on campus. Aluminium panels have been fixed on the concrete structures using washers and are completely modular, making it easy to remove, change and maintain, if needed. Binding three individual concrete structures together with an aluminium sheet while making the structure seamless was a major challenge that was achieved with the use of tie members passing through the structure (Figure 41). In addition, the unusal shapes of the signs presented some challenges for the sign makers who are not used to working in concrete. Samples were taken from several different signage companies, and even after one was selected several iterations were required before the signs met IITGN standards of quality.

Figure 41. Construction techniques for concrete and aluminium structures

4.3. Colour coding

Black is the primary colour used in all the signage placed outside to neutralise the bright sunny ambience, making it easily readable and soothing to look at throughout the day. Colour coding of signage inside various building blocks is directly inspired from the accent colours of the buildings and has been changed accordingly in different blocks (Figure 42).

Gate Directionals
(All Gates)
Dahlia Yellow
RAL CODE - RAL- 1033

Sectors
(All)
Yellow Green
RAL CODE - RAL-6018

Street Names
(In main Vehicular directionals)
Dahlia Yellow
RAL CODE - RAL- 1033

Block 1
Zinc Yellow
RAL CODE - RAL- 1018

Block 2
Orient Red
RAL CODE - RAL- 3031

Block 3
Sulfur Yellow
RAL CODE - RAL- 1016

Block 4
Solman Orange
RAL CODE - RAL- 2012

Block 5
Pale Green
RAL CODE - RAL- 6021

Block 6
Light Blue
RAL CODE - RAL- 5012

Block 7
Yellow Orange
RAL CODE - RAL- 2000

Block 8
XYZ
RAL CODE - RAL- 0000

Block 9
XYZ
RAL CODE - RAL- 0000

Chemical Engineering Teaching Lab

Pharmacy

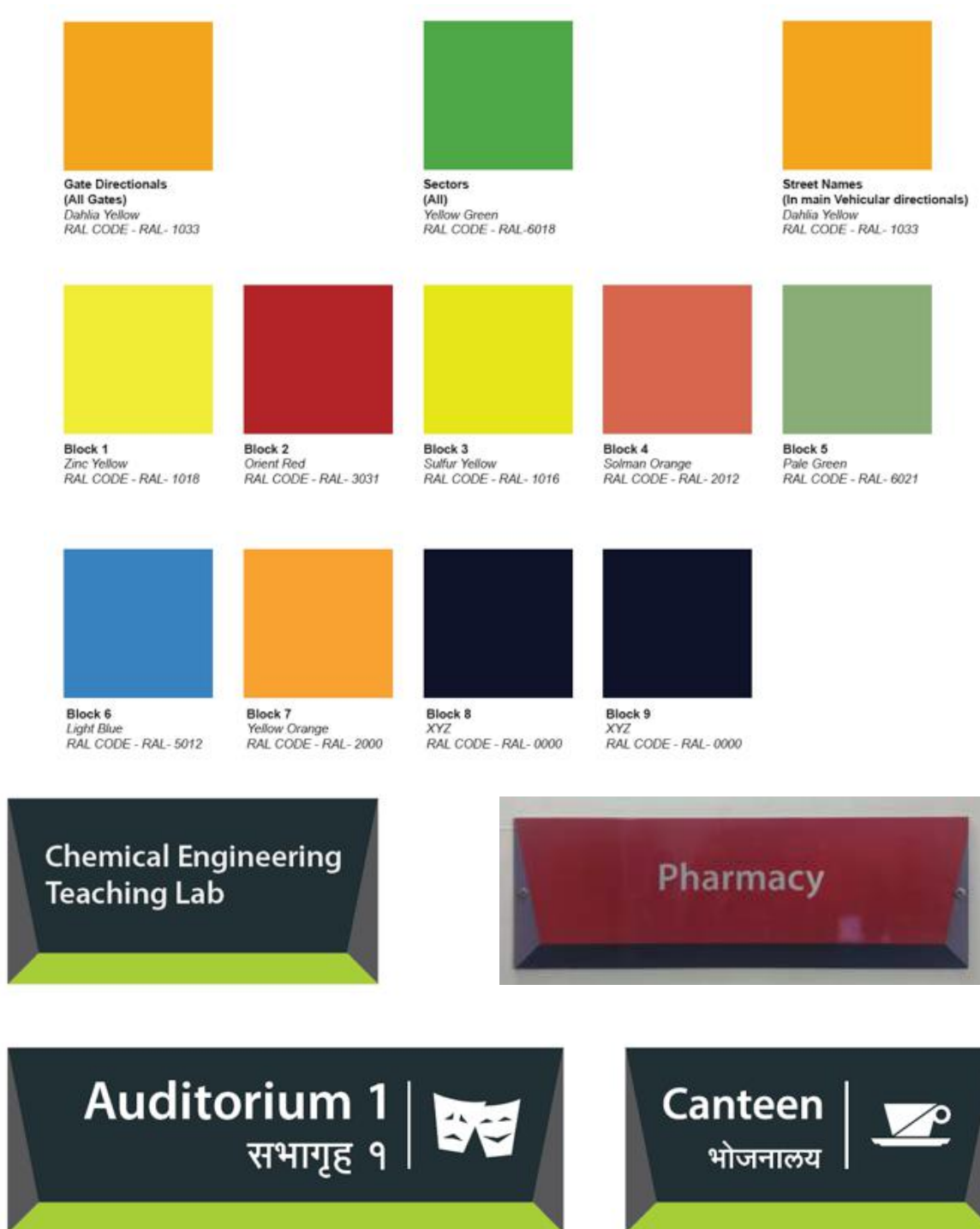Auditorium 1 | सभागृह १

Canteen | भोजनालय

Figure 42. Colour coding as per the block accent colours

4.4. Messaging

For the entire range of signage, a messaging hierarchy has been followed. Directional messages are of key importance. The design and placement of icons and text for directional messages is done in a way that makes it easy to understand and guides the user appropriately. Arrows indicating left direction are placed on the left side of the text and similarly arrows indicating right direction are placed towards the right of the text, reducing confusion while reading the entire board (Figure 43).

Figure 43. Arrows on the signs are used to indicate directionality

4.5. Information on unique campus features

A class of signs has been developed by IITGN to highlight some of the unique features on the campus. These are informational signs that explain a technology being used on campus (confined masonry or solar panels), or that explain a feature, such as the Jal Mandaps (Figure 44). Additional informational signs will be added as there are more features developed on campus.

Figure 44. Informational signs around the campus

Figure 45. Sign honouring campus dedication

4.6. Special Commemorations

The signage consultants recommended that, in addition to the informational signs, a unique style sign be developed for special commemorations that may occur over the coming years on campus. This way there will be a consistent look throughout the campus as these particularly important occasions are noted. The first such sign was developed in honour of the dedication of the campus in 2017 by the Prime Minister of India (Figure 45).

4.7. Bilingualism

All critical signs are in two languages, Hindi and English. Following the terms of the Rashtriya Bhasha Act, all text in Hindi is placed above the text in English.

4.8. Sign locations

All signs are strategically placed to minimise confusion. Multiple nodes were identified as the meeting points of many interlinking roads throughout the campus. These nodes were a priority when designing the signage for the campus and are considered prime locations for effective signage. In some locations the signs have been placed in the landscaping along the roads so that visibility for drivers is not obstructed.

IITGN drastically reduced the number of signs from what was originally proposed by the consultant. Campus planners decided that different signs were not required for every type of user (driver, pedestrian, etc), nor were so many wayfinding signs required once inside the campus.

4.9. Housing and Hostel Signage System

Initially, preliminary signage design for hostels and housing areas was submitted by the individual architectural firms who designed the hostels and housing, respectively. However, after the academic area signage and the overall campus signage was executed, it was felt that it would be desirable to follow a uniform signage system through the campus and hence it was collectively decided to adopt the Path of Glory signage system in the housing and hostels as well. However, Tata Elxsi in discussion with IITGN proposed a different colour scheme for the signages in these residential areas to help set them apart from the academic area and the rest for the campus signages. Different colour schemes were chosen based on the existing building colour schemes in the hostels and housing.

There were also a few items that required fresh consideration in the housing and hostel signage systems. Such items as signs for room numbers in hostels and housing and their placement, signages for housing parking, and the need for a building directory had to be considered. Another interesting aspect in the Housing area door signages were the personalisations that were possible. The Institute procured the signage for the Housing area and the faculty offices, and then allowed for personalisation. The residents were encouraged to choose personalised text on their front door name plate and as a result a number of residents chose to include names of other family members including children in their front door signage. Other residents chose to list their names in Hindi.

Figure 46. Personalised signage in Housing area

Figure 47. Housing Parking

Figure 48. Hostel Directional Sign

Figure 49. Hostel rooms

Figure 50. Hostel Room number

5 *Concluding Remarks*

This is perhaps the first time that such a project regarding wayfinding signage has been taken up by an IIT, with a focus on developing a specific design that uniquely represents the campus. The entire signage system resulted from multiple design discussions and debates among the consultant and the IITGN community. The project was undertaken in various stages, starting with the Academic Complex and then moving on to other areas of the campus, including housing and the hostels. At each stage the focus was to create synergy among the signage used in the different sections of the campus (See examples on following pages). This was achieved in the overall form, play of colour, and other specific details in the signs. The use of concrete in the campus signage is the first of its kind at such a scale in any signage system, and represented a challenge in the construction. It is hoped that describing this level of detail in the decision-making process may prove useful to other universities and institutions.

Figure 51. Map of the campus

Figure 52. Examples of signages

Figure 53. Nameplates in the Academic buildings. Colours correspond to colours inside each academic building
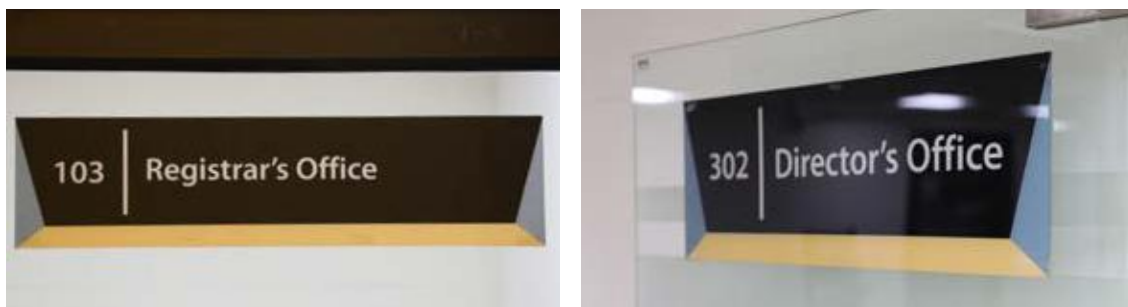

Figure 54. Office nameplates in the Academic buildings

Welcome to

IIT
Gandhinagar

Signage on one of main roadways

Figure 55. Signage in front of academic buildings

Figure 56. Directional sign inside Housing area

Figure 57. Informational sign, explaining a feature on campus

Figure 58. Campus informational sign

Figure 59. Street signs inside campus

6 *Credits*

Owner	**Indian Institute of Technology Gandhinagar**
Advisor Works	Mr Nagaraja B. N. (up to 30-04-2013)
	Mr L. P. Srivastava (from 06-05-2013)
Owner's Architect	Mr Shobhit Tayal, Design and Planning Counsel Pvt. Ltd., Ahmedabad
Owner's Engineer	Mr A. K. Kothari, Superintending Engineer (up to 28-01-2013)
	Mr G. C. Chaudhary, Superintending Engineer (from 04-02-2014)
Faculty Team	Prof Sudhir K. Jain, Director
	Prof Harish P. M., Mechanical Engineering
	Prof Pedro Pombo, Humanities and Social Sciences
	Prof Amit Sheth, Design
	Col S. S. Kapoor (Retd), Adviser, Coordination, External Relations
	Mr Mudit Rathor (Student)
Signage Designer	**M/s Tata Elxsi, Pune**
	Mr Yogesh Dandekar, Senior Manager, Industrial Design
	Mr Amit Ambekar, Lead Designer, Industrial Design
Signage Fabricator	**M/s Shital Signs, Ahmedabad**
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Members	Prof Neelkanth Chhaya, Former Dean, Faculty of Architecture, CEPT University, Ahmedabad (2009 - present)
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	Shri R. Subramanian, Former Additional Director General, CPWD, New Delhi (2009 - 2012)
	Chief Engineer (Capital), Roads & Buildings Dept, Government of Gujarat, Ahmedabad (2009-2012)
	Director (TS-I), Ministry of Human Resource Development Government of India, New Delhi (2009 - 2011)
	Shri A. K. Jain, Former Special Director General, CPWD New Delhi (2012 - present)
	Shri L. P. Srivastava, Former Additional Director General, CPWD & Advisor (Works), IITGN (2012 - present)

	Prof Ashwini Kumar, Professor-in-Charge, Planning & Resources, IITGN (2012 - 2014)
	Prof Harish P. M., Dean, Campus Development, IITGN (2014 – 2018)
	Prof Gaurav Srivastava, Dean, Campus Development, IITGN (2018 - present)
	Dr Prabhat Kumar, Former CMD, Bharatiya Nabhikiya Vidyut Nigam Ltd, Kalpakkam, (2012 - 2016)
	Shri M. B. Bhalala, Former Chief Engineer, Road & Building Department, Government of Gujarat (2016 - present)
Secretary	Shri B. S. Punalkar, Registrar, IIT Bombay (2009 - 2013)
	Shri P. K. Chopra, Registrar, IITGN (2013 - present)
Project Progress Monitoring Committee	**Indian Institute of Technology Gandhinagar**
Members	Shri L. P. Srivastava, Advisor, Works, IITGN
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	Shri Kiran S. Wagh, Chief Advisor, Civil Infrastructure, IIT Bombay
	Shri Prabhat Kumar, Former CMD, Bharatiya Nabhikiya Vidyut Nigam Ltd, Kalpakkam (up to January 2016)
	Shri Balraj Chadha, Chief Engineer, CPWD, Gandhinagar (up to May 2016)
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	Shri Laksh Bhargava, Project Manager, CPWD (up to January 2016)
	Shri Kapil Deo Narayan, Project Manager, CPWD (up to January 2019)

This publication is one in a series describing the development of IIT Gandhinagar's campus on the bank of the Sabarmati River in Gandhinagar. The campus development provided numerous opportunities for innovation and the series is meant to document these.

The focus of this publication is on the process of signage development for the campus. Various concepts are presented, along with the process of evaluation and ultimately implementation.

Copies can be obtained by writing to the librarian@iitgn.ac.in.