

Office Profile  
**BPS Architects**

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2022

### **Disclaimer**

This document describes works and projects undertaken by BPS Architects. All information and factual data is correct to the best of knowledge of BPS Architects. No further claims regarding authenticity of these shall be entertained in any manner what so ever.

The office reserves the right to change; alter; modify any or all the information in subsequent profiles.

## Principals

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### **Brinda Parth Shah**

**Architect.** CEPT, Ahmedabad. Council of Architecture (CoA, India) Reg. No. CA/99/24867  
**MA.** International Studies in Vernacular Architecture, Oxford Brookes University, Oxford, UK.

### **Parth Uday Shah**

**Architect.** CEPT, Ahmedabad. Council of Architecture (CoA, India) Reg. No. CA/98/23103  
**M.Sc.** GIS & EO. Water Resource and Environment Management;  
Specialisation: Watershed Management, ITC, Enschede, the Netherlands.

## Office Philosophy

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The office aims to produce sound architectural works reflecting culture and climate of a place. At the same time, it is a desire to disseminate information towards a better-built environment using cultural context and appropriate technology.

Issues of ecologically balanced architecture; concerns for water and resources conservation and environmental degradation are at the core of any new design in today's context. The office will try to address these issues with innovation and in the given contextual frame.

It is our concern to build contemporary designs that are appropriate; relevant and exhibit a regional language suiting project demands.

## Infrastructure

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The office is well equipped with tools and computers necessary to design and execute variety of architectural and design projects and is complemented by competent staff, expert consultants and support- infrastructure. The office has tie-ups with architects in other towns on project-to-project basis.

## Contacts

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**Email:** bps\_architecture@yahoo.co.uk  
**Phone:** 0281-246 5704  
**Cell:** 0-94272 20972 (direct Parth Shah)  
**Cell:** 0-94290 44861 (direct Brinda Shah)  
**Website:** www.ourpeopletree.co.in

## Mailing and Office Address

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"Natvarlal Nyalchand House", 2-Collegewadi, Dr. Radhakrishnan Road, Rajkot-360001. INDIA

## Office Background

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The office was established in 1999 in Ahmedabad. From 1999 to 2003, various projects ranging from design of small houses to institution projects were carried out. During this time, the partners were also working under senior architects to gain wider insights of the profession. From September 2003 to April 2005, both the partners went abroad for post-graduate studies. The office is now operational from Rajkot since May 2005. Currently, the office is handling a vast range of projects; architectural and urban design ranging from large scale urban infrastructure projects to interior design of a residence.

## Thrust Areas

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*The office expertise in the development of design in following areas*

- Urban Design
- New Building Design
- Built Intervention
- Building Conservation
- Building Services
- Policy & Documentation
- Land Development
- Architectural research
- Water management solutions

## Core Sectors of Operation

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- Architectural Concept Generation
  - Architecture
  - Interior architecture
  - Landscape architecture
  - Vernacular architecture.
- Mass production and assembly line formations.
- Backward-forward integration.
- Health & Hygiene
- Child Education & Pedagogy
- Hydrology
- Sustainable development
- Rural development
- Eco sensitive Building Development
- CSR Activities addressing following core issues
  - Health & Hygiene
  - Child Education & Pedagogy
  - Built Intervention
  - New Building
  - Hydrology
  - Building Services
  - Building Conservation
  - Concept Generation
  - Policy & Documentation
  - Pond development programs

## Awards and Recognition

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- Felicitated by the District Collector, Rajkot for Design and Curation of Handicraft Fair “**Hastakala Parva 2020**” at Rajkot during the State Level 26<sup>th</sup> January Celebration. January **2020**.
- **Shortlisted Entry. Award for Excellence in Architecture.** WADe ASIA Award. **2019**.
- Felicitated by Hon’ble Chief Minister of Gujarat for Design and Execution of “**KALASTATION**”, an **Open-air Performing Arts Platform. 2019**. Collector Office Complex, Sadar, Rajkot. September **2019**.
- Presented a talk at **India Arch Dialogue 2018. Moments in Architecture. Exhibition of Architectural Photographs.** FCDI, Gallery IAQ, New Delhi. 9th to 25th February **2018**.
- Projects exhibited in the exhibition, “**The State of Architecture—Practices and Processes in India**”. National Exhibition on Architecture, project by UDRI. NGMA. Mumbai. 6 January 2016 to 20 March **2016**.
- **All India Stone Architectural Awards (AISAA). Commendation. Green Architecture Category. 2015.** For the Project Country Retreat, Village Raj Samadhiyala, Dist Rajkot
- **Architecture+ Design & CERA Awards. Special Mention. Young Enthused Architect Category. 2014.** For the Project Country Retreat, Village Raj Samadhiyala, Dist Rajkot and *Sanjeevani*-Biodiversity Conservation Resource Area in 10 Post-Basic Schools of Gujarat.
- **JK White Cement Architect of the Year Award. 22<sup>nd</sup> Cycle. Winner of the Architect of the Year Award in Green Architecture Category. 2011.** For the Project: Country Retreat, Village Rajsamadhiyala, Dist Rajkot.
- **A+D Spectrum Architecture Foundation Award. Commendation Trophy. Young Enthused Architect Category. 2010.** For the Project Residential Studio, Rajkot and Aapni Shala – Halvad, Surendranagar, Gujarat.
- **A+D Spectrum Architecture Foundation Award. Special Mention, Young Enthused Architect Category. 2009.** For the Project Residential Studio, Rajkot and Aapni Shala – Halvad, Surendranagar, Gujarat.
- **JK White Cement Architect of the Year Award. 18<sup>th</sup> Cycle. Winner of the Young Architect of the Year Award. 2008.** For the Project: Residential Studio, Rajkot.
- **A+D Spectrum Architecture Foundation Award. Special Mention, Young Enthused Architect Category. 2005.** For the Project: Anandshala, South Gujarat and Resource and Training Centre, Bilpudi.
- **Short listed for design of Extension to VIKSAT**, Nehru Foundation for Development (NFD), Ahmedabad. **2005**

## Project Profile, Completed

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### Urban Design

*Design and intervention at a city-scale; involving multi disciplinary participation; and addressing social; economic and architectural issues*

- Design of roads for Indore Municipal Corporation. Consultants for redesign of roads for IMC. In collaboration with Embarq. August 2012.
- Bus Rapid Transit System (BRTS), Rajkot. RMC. Task and responsibilities include Assistance in collecting local data; Assistance in preparation of bid documents and BOQ; Design development of local site specific details; Pavement details; Design of Foot Over Bridge and Bus shelters; Design of Terminal and Depot building; Design of Toilet Blocks; Design of Street Furniture and Site inspection up to the completion of the project. All civil work except bus shelter and depot completed. December 2007-August 2011.
- Integrated Village Development Plan, Village Ravki, Ta.Lodhika, Dist. Rajkot. Proposal made for Mr. Yesheen Vibhakar, Rajkot. January 2008.

### Water Conservation; Water Structures

*Design of water structures with emphasis on soil-moisture conservation. Watershed development; water management.*

- Pond Development Works. Village Bhatawala, Jaipur. Ashiana Foundation. Unbuilt Proposal. March 2020.
- 'Jaldhara', Mahatma Phule Samaj Seva Mandal, Karmala, Dist Solapur. Repair and restoration of Earthen Nala Bund. In partnership with Centre for Environment Education, Ahmedabad, India. November 2016-January 2017.
- Randarda-Lalpari Lake Development. A report prepared jointly with Rajkot Municipal Corporation for submission to the NLCP under the Central Government Grants. August 2007.

### Institutions

*Design of buildings with complex architectural requirements at institutional scale*

- Restoration; alteration and extension for the premises of Lokmitra Trust, Village Dhedhuki, PO Ajmer, Via Vinchhiya, Dist Rajkot. November 2020.
- 'Kalastation', an open air theatre cum performing arts platform for upcoming artists. Collector Office Complex, Sadar, Rajkot. Rajkot Collectorate. September 2019.
- Primary school concept design consultation. Anandpar, Navagam. Dist Collectorate, Rajkot. January 2019.
- 'Anandshala se jeevanshala'. Primary schools up gradation project. 6 Govt Primary schools, Ta Bavla, Dist Ahmedabad and Ta Kheda, Dist. Kheda, Gujarat. VIKSAT. December 2019.
- Livelihood Centre, Vadinar. Unbuilt Proposal. Funded by Nayara Energy Foundation. Centre for Environment Education, Ahmedabad, India. September 2018.
- "Gramshiksha", Primary schools up gradation project. 15 Govt Primary schools, Ta Khambhaliya and Ta Lalpur, Dist. Devbhoomi Dwarka and Jamnagar, Gujarat. Funded by ESSAR Foundation. Centre for Environment Education, Ahmedabad, India. June 2018.
- Narsinh Mehta University, Junagadh. Campus Design. Proposal submission. January 2018.
- Campus Development Works. Nirmala Convent School. Rajkot. Creation of outdoor class rooms; seating elements and redesign of the central court. October 2016.
- Campus Development Works. Lokbharti, Sanosara, Dist Bhavnagar. Lokbharti Trust. Creation of outdoor class rooms and recreational ares with landscape elements. June 2016.
- 'Shree Upashraya', Residential complex for Jain saints. Rajkot, Gujarat. Prahalad Plot Jain Sangh. August 2016.

- “*Swapnil Shala*”, Infrastructure development project of a primary school at Village Ghatal, Tehsil Tijara, Dist Alwar, Rajasthan. CSR Activity funded and executed by Ashiana Housing Limited, New Delhi. In partnership with Centre for Environment Education, Ahmedabad, India. August 2016.
- “*Anand Shala*”, Child Friendly Elements in School. Infrastructure Development Project of 50 Govt Primary schools and 1 KGBV in Ta. Chhota Udepur, Dist Chhota Udepur, Gujarat. Funded by UNICEF. Centre for Environment Education, Ahmedabad, India. January 2015.
- “*Anand Shala*”, Supportive Environment Development Program, Project of 157 primary schools in Ta. Halvad, Dharampur, Kankshala, Mandvi & Kavanth, Gujarat, Funded by Reach To Teach, UK. Centre for Environment Education, Ahmedabad, India. January 2014.
- Meditation Centre for VVP Trust, Vajdi Virda, Rajkot. January 2012-June 2014.
- “*Anand Shala*”, Infrastructure development project of a primary school at Village Thada, Tehsil Tijara, Dist Alwar, Rajasthan. CSR Activity funded and executed by Ashiana Housing Limited, New Delhi. In partnership with Centre for Environment Education, Ahmedabad, India. March 2013.
- “*Anand Shala*”, Infrastructure development project of 11 primary schools in Ta. Waghodia, Dist. Vadodara, Gujarat, Funded by Suzlon. Centre for Environment Education, Ahmedabad, India. December 2011.
- Biodiversity Conservation Resource Area. ‘*Sanjeevani*’ A school based Medicinal Plant Education and Conservation Initiative. PBSs in ten villages in Saurashtra and South Gujarat. CEE Ahmedabad. September 2010.
- Port Blair City Park—An Urban Eco-Garden for the Citizens and Visitors. Centre for Environment Education, Ahmedabad. Project commissioned by Andaman and Nicobar Forest Department, A & N Government. Project Report Submitted. April 2010.
- Library and Extension to DCF Offices, Haddo, Port Blair. Project commissioned by APCCF, Andaman and Nicobar Forest Department, A & N Government. Design submitted for execution. April 2010.
- “*Anand Shala*”, Infrastructure development project of 19 primary schools in Farfoud Cluster, Arang Block, Dist. Raipur, Chhattisgarh, Funded by Water Aid. Centre for Environment Education, Ahmedabad, India. Execution of 3 schools completed. September 2009.
- Satsang Hall at Gondal. Privately funded. Unbuilt. October 2008.
- Primary School Up-gradation at Village Rajpur, Dist. Gandhinagar. January 2008.
- *Aapni Shala* Project—Primary School Up-gradation project under SNEHAL Program of CARE India (NGO) in 18 villages in Halvad Taluka, Dist. Surendranagar. CEE, Ahmedabad. December 2007.
- Micro Enterprise Resource Centre at Village Raisangpur, Ta. Halvad, Dist Surendranagar. CEE, Ahmedabad. September 2007
- Hospital at Mundargi, Dist. Gadag, Karnataka for the Mrudagiri Agricultural and Rural Development Centre, Kalakeri and Suzlon Infrastructure Ltd. April 2007.
- Tourist Facility at Blackbuck National Park, Velavadar, Bhavnagar. Competition Entry. March 2007.
- Stockholm Public Library, Stockholm, Sweden. International Architectural Competition Entry. June 2006
- Proposal for a *Satsang* Hall cum House for Swamini Shubhanand Saraswati at Junagadh. May 2006.
- Extension to VIKSAT, CEE, Ahmedabad. Short listed competition entry. 2005
- Memorial Complex for the Bhopal Gas Tragedy Victims, UCIL, Bhopal. Competition Entry. 2005
- The external play area of the Crèche at Centre for Environment Education, 2003.
- Model School Project—“*Anand Shala*”, Infrastructure development project of 30 primary schools in the tribal belt of southeast Gujarat, Funded by UNICEF, DPEP, Gujarat and Centre for Environment Education, Ahmedabad, India. 2002-2003.
- Resource and Training Centre, Bilpudi, Ta. Dharampur, Valsad, South Gujarat, India, Funded by Centre for Environment Education, Ahmedabad, India. 2002.

- Post earthquake reconstruction, Primary School Design – Sir J High School at Lakhtar, District Surendranagar, Gujrabavat, India, funded by Prime Minister's Relief Fund.2002.

### Industrial Buildings

- Warehouses at Navagam. Saurashtra Paper & Board Mills Compound, Navagam, Rajkot. January 2020.
- Site Planning and adaptive reuse of an existing building site. Saurashtra Paper & Board Mills, Navagam, Rajkot. November 2017.
- Site Planning & Services Development for a proposed Industrial Park, Shapar, Rajkot. May 2014-December 2014.
- Port warehouse and silos for dry goods. Shantilal & Co. Gandhidham. Design completed. June 2008-December 2009.

### Group Housing

- Site Planning & Development for a proposed Residential Township, Raiya, Rajkot. Unbuilt Proposal. March 2015.

### Residences

#### *Private residential development in an urban context*

- Extension to residence for Shri Parthesh Pandya and Smt Binduba Zala at Village Rajpur, Dist Gandhinagar. May 2021.
- Residence for Shri Dhiraj Dandiya. September 2020
- Residence for Shri Paresh Patel, Gondal. Unbuilt Proposal. May 2020.
- Devang Pandya Farmhouse. Village Kalri, Dist Mehsana. Concept design proposal. August 2019.
- Farm and Tool room. Extension of Parthesh Pandya Residence, Village Rajpur, Dist Gandhinagar. March 2018.
- Residence for Shri Nishit Dave at Rajkot. December 2013-November 2016.
- Renovation and External Landscaping of residence of Shri Nischal Sanghvi. September 2014 – November 2014.
- Residence for Mr. Dharmendra Gadhvi, Village Varvala, Dwarka, Dist Jamnagar. Unbuilt proposal. December 2011-May 2012.
- Country retreat for Shri Prataprai Bos at Village Raj Samadhiyala, Dist Rajkot. January 2009-November 2011.
- Complete alteration of residence for Smt Dipti Shukla and Shri Jayesh Shukla at Rajkot. September 2010-February 2011.
- Residence for Shri Parthesh Pandya and Smt Binduba Zala at Village Rajpur, Dist Gandhinagar. November 2010.
- Residence for Dr. Shri Amit Sitapara at Rajkot. March 2009-May 2010.
- Renovation of residence of Shri Mahavir Bos. August 2008 – March 2010.
- Proposal for Residence for Shri Raju Shah, Gondal. June 2009.
- Infrastructure improvement in residence of Smt Hansikaben Arvindbhai Maniar. August 2008.
- Residence for Shri Jagdish and Kamlesh Dave at Gondal. June 2007-December 2009
- Residence for Shri Paresh Patel at Gondal. May 2007-August 2009.
- Proposal for House for Shri Vishnubhai Thaker at Gondal. June 2007.
- 2, Collegewadi, Rajkot-360 001 INDIA. Residence-cum-studio for self. July 2005-August 2007.
- Renovation of residence of Mr. T R Pancholi. 2002.
- House for a public servant in Lucknow. 1999. Proposal.



## Interior Design

### *Interior architectural design for commercial establishment and residential premises*

- Interior design for two apartments for Mr Praful Dodiya and Dr Khushal Dodiya, Rajkot. March 2022
- Interior design for terrace office of Shri Sahdevsinh Zala, Morbi. March 2022.
- Interior design for an apartment for Mr and Mrs Aditi and Shrenik Gada, Mumbai. Concept Diagrams. November 2021.
- TK Kamdar Medical Shop. Restoration and interior design of a Medical shop. Sir Lakhajiraj Road, Rajkot. Rakshit Kamdar. November 2020.
- Jobanputra & Sons. Restoration and interior design of an accountant's office. Sir Lakhajiraj Road, Rajkot. Mihir Jobanputra. November 2020.
- Concept design for interior of Jit and Rajvi Panchamiya House, Dallas, USA. September 2020.
- Design of exhibition gallery showcasing arts and crafts of Rajkot District. District Collectorate, Rajkot. January 2020.
- Interior Design for an optical lens marketing company. Oorja Enterprise. Rajkot and Navagam. Mr. Deepak Mehta. September 2019 & January 2020.
- Interior Design for an office. Mr Hitendra Dabhi. Navagam. October 2019.
- Alteration and interior design of a floor to house an office. Mr Deepak Mehta, Navagam, Rajkot. December 2018.
- Interior design for an apartment for Mr and Mrs. Ashish Karia, Rajkot. January 2017.
- Interior design for Mr and Mrs Devang Parekh. April 2017
- Interior design for an apartment for Dr Kartik and Hetal Modha, Rajkot. August 2014-March 2016.
- Interior design for a sample apartment terrace unit for Patria Projects, Rajkot. April 2013
- Interior design for a corporate office for Fiesta Design, Rajkot. June 2012-January 2015.
- Interior design for a sample apartment unit for Patria Projects, Rajkot. November 2012-June 2013.
- Interior design for an apartment for Dr Shamik and Tejal Shah, Ahmedabad. April 2012-June 2013.
- Interior design for residence of Smt Hansikaben Arvindbhai Maniar. April 2011.
- Interior design for an office of a chartered accountant. 2010.
- Interior design for a house of a professional couple. 2003.
- Interior design for a retail office for Hitachi Air conditioners, Ahmedabad, India. 2003.
- Interior design for an apartment of a single aged lady. 2001.

## Exhibition Design

### *Design of pavilion for various governmental and non-governmental organisations to host temporary exhibitions.*

- *Shivratri Hastakala Parva 2020*. Vadodara. IndExt-C and Government of Gujarat. February 2020
- *Hastakala Parva 2020*. State Level Handicrafts Fair as part of the 26 January Celebrations. Rajkot. January 2020.
- *Bharat ek khoj*. Children's Fair on the topic of Discovery of India. Vadinar, Ta Khambhaliya, Dist Devbhoomi Dwarka. Funded by ESSAR Foundation. Centre for Environment Education, Ahmedabad, India. February 2018.
- *Indradhanush*. Children's Science Fair. Vadinar, Ta Khambhaliya, Dist Devbhoomi Dwarka. Funded by ESSAR Foundation. Centre for Environment Education, Ahmedabad, India. February 2017.
- *Prakrut 2015*. Organic Food Festival. January 2015.
- Exhibition layouts for various venues in the city of Rajkot for the State Level 26<sup>th</sup> January (Republic Day of India) Celebrations at Rajkot. The project was commissioned by the District Collectorate, Rajkot. January 2006.

## Tableau/Mobile Unit Design

*Design and execution of mobile exhibition units for display purposes under varied conditions and situations.*

- Design of a Mobile Education Unit for Nannibala Charitable Trust, Ratnal, Dist Kutch. In collaboration with CEE, Centre for Environment Education, Ahmedabad. April 2007- September 2007.
- Design and execution of a tableau depicting the tourism prospects of Rajkot District for the State Level 26<sup>th</sup> January (Republic Day of India) Celebrations at Rajkot, Gujarat. The tableau was exhibited at the International Kite Festival, Ahmedabad. The project was commissioned by the District Collectorate, Rajkot. January 2006.

## Product Design

*Design of articles/objects for various needs; modification to existing objects/things to suit newer needs.*

- Lens rack. Metal. September 2019.
- Outdoor Garden Bench and Table. Bawal (Ganda Bawal tree; **Prosopis juliflora**). November 2013.
- Coffee table. Padouk and Teak. November 2012.
- Re-design of scaffolding for GEDA windmill. 2009-2010.
- Design of a standalone display panel-cum-storage rack. Designed for the RMC Stall at India Urban Space 2007, Mumbai. Rajkot Municipal Corporation. September 2007.
- Design of a proto-type Bus-stop for Rajkot Municipal Corporation. April 2007.
- Jewellery Box 1. February 2006.

## Restoration and Conservation of Buildings

- Restoration of *Shamran* at Shri Neminath Tirth, Mt Girnar. Documentation followed by strategy to restore the structure. Sheth Anandji Kalyanji Pedhi. September 2018.
- Structural retrofitting of New Classroom Block. Nirmala Convent School. Rajkot. May 2015.
- Primary School No. 20. Owned by Nagar Prathmik Shikshan Samiti. Managed by Rotary Club of Rajkot Metro. May 2008.
- Restoration; alteration and extension for House of Shri Irfan Tabani, Old city, Rajkot. May 2007.

## Heritage Conservation, Documentation & Research

- Restoration and adaptive reuse of Lakhajiraj Railway Station, Morbi Road, Rajkot. Western Railway. Unbuilt Proposal. June 2019.
- Condition drawings for Restoration of the *shamran* at Neminath Temple Girnar Tirth. September 2018.
- Rajkot City Conservation Plan. A Detailed Project Report under JnNURM for heritage conservation of Rajkot City. RMC. March 2008.
- Initiation of Heritage Walks for Rajkot city. Two programs launched successfully. Project commissioned by Rajkot Municipal Corporation. 2006.
- Documentation and Restoration of Darbar Gopaldas Haveli, Vaso, Dist Kheda. November 2005.

## Landscape Design

- Developing of two gardens at Collector Office Complex, Sadar, Rajkot. Rajkot Collectorate. September 2019.

## Policy Documents and Reports

- Disability Audit—Accessibility Report-cum-study of some important Public Buildings of Rajkot. Project report for Rajkot Municipal Corporation under the Commonwealth Local Government Good Practices Scheme (GPS) UK, 2004-2007. January 2008.

## Venue Design

- Temporary structures for the 4th International Conference on Environmental Education to be held at Centre for Environment Education, Ahmedabad. The design includes exhibition stalls; shelters for plenary session; dining facilities; meeting and working session facilities; temporary toilet facilities, etc. In association with Neelkanth Chhaya Architect, Ahmedabad. November 2007.

## Project Profile, On-going

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### Urban Design

- Redevelopment of Shastri Maidan, Rajkot. February 2019

### Institutions

- School Development Project. Infrastructure development project of a Sr Secondary School at Village Bhankrota, Tehsil Jaipur, Dist Jaipur, Rajasthan. CSR Activity funded and executed by Ashiana Housing Limited, New Delhi. August 2021.
- Campus development of Shri Rohishala Teerth, Village Rohishala, Ta Palitana, Dist Bhavnagar. This includes design of VIP Guest Houses, Toilet blocks and other facilities. February 2021.
- Multi-storeyed Parking and Tourist Complex, Becharaji, Dist Mehsana. February 2019
- Aquarium-cum-Ocean Conservation Education Park—*Matsyodyan*. Jagannath Puri, Odisha. May 2013.

### Commercial Buildings

- Neelkanth Square, Sanala Road, Morbi. 55000 sq ft commercial complex. Narendrasinh Zala. August 2020.

### Public Garden Design

- '*Pavitra Upvan*', Development of park with trees bearing religious importance. Osam Dungar *taleti*. Ta Dhoraji, Dist Rajkot. Dept of Forest, Govt of Gujarat. August 2021.
- Ishwariya Park. Rajkot. 40 ha park development. Design of the park amenities. Modernisation of park infrastructure. January 2019.

### Group Housing

- Shivkul Commune. Village Kabhada, Dist Nainital. Group housing of 40 units spread in a 5 acre hilly site. March 2018.

### Residences

- Alteration and redesign of residence for Shri Chaitanya and Sonal Bhatt. Village Dhedhuki, PO Ajmer, Via Vinchhiya, Dist Rajkot. January 2022.
- Residence for Shri Chandubhai Punjabhai. Village Dhedhuki, PO Ajmer, Via Vinchhiya, Dist Rajkot. January 2022.
- Residence for Shri Hardevsinh Jadeja, Village Rajsamadhiyala, Dist Rajkot. June 2021.
- Residence for Shri Kalyan and Falguni Dangar, Village Rajpur, Dist Gandhinagar. January 2022.
- Residence for Shri Gaurang and Hiral Vyas, Village Rajpur, Dist Gandhinagar. January 2021.

### Interior Design

- Interior design for apartment for Mr Arpit Vasavada, Rajkot. April 2021.
- Interior design for an apartment for Mr and Mrs. Jaydeep & Rupal Shukla, Rajkot. December 2020.
- Interior design for an apartment for Mr and Mrs. Deepak and Bharti Mehta, Rajkot. April 2017.

## Product Design

- Product design of a temporary, foldable and mobile shelter for migrant tribal farm worker in South Gujarat, India. January 2006.

## Heritage Conservation, Documentation & Research

- Compilation of house forms of Rajkot. A study in dwelling typology.
- Documentation of wooden building elements of Rajkot city. 2005-ongoing.
- Documentation of furniture and building elements. 2011-ongoing.

## Water Conservation; Water Structures

- Lake Development Works. Village Lachhras, Ta Nandod, Dist Narmada, Gujarat. JCB-LBCT Foundation in collaboration with CEE Ahmedabad. Proposal. May 2022.
- Lake Development Works. Village Mujpur-Padra, Ta Nandod, Dist Narmada, Gujarat. Gulbrandsun Project in collaboration with CEE Ahmedabad. Proposal. May 2022

## Associated Firms and Individuals

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*BPS Architects are associated with various professionals on project-to-project basis as well as on long term basis with following firms.*

- Mr. Ar. Neelkanth Chhaya Architect, Ahmedabad.
- Mr. Ar. Vinod Makhesana Architect, Rajkot
- Mr. Er. Bimal and Vandana Shah, Structural Engineers, Baroda
- Mr. Er. V.R. Shah, Structural Engineers, Ahmedabad.
- Mr. Er. Ankur Bhogayata, Structural Engineer, Rajkot
- Hi-Tech Engineers, Contracting Engineers, Ahmedabad
- Kunwarji & Sons, Engineers and Contractors, Rajkot.
- Mr. Allen Shaw, Communication Designer, Rajkot.
- Mr. Er. Nandish Shah, Antech Consultants and Engineers, Electrical Engineers, Ahmedabad
- Mr. Er. Mukesh Shah, Air-conditioning Consultant, Ahmedabad
- Mr. Er. Jayant Lakhlani, Structural Engineers, Rajkot
- Mr. Navin Umrana, Consulting Civil Engineer, Rajkot
- Mr. Ajay Katuri, Architect Planner, Ahmedabad.
- Mr. Mihir Maniar, Civil Engineer and Real Estate Developer, Rajkot
- Mr. Er. Manish Doshi, Structural Engineers, Rajkot
- Mr. Sandeep Gandhi Architects, Delhi
- Mr. Er. Dipen Mehta. AQUA Utility Designs and Management Pvt Ltd
- Mr. Er. Kapil Jani. Technosoft Consultants.
- Mrs Trupti Desai. Techno Engineers

## Project Partners/Clients

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*BPS Architects are associated with following entities as Project Partners/ Clients<sup>1</sup>*

- Anandji Kalyanji Trust, Ahmedabad
- Andaman and Nicobar Forest Department
- Apollo Tyres Foundation, Gurugram
- Ashiana Housing Limited, Bhiwadi-New Delhi
- Bharuch District Collectorate
- CARE International
- CEE -- Centre for Environment Education, Ahmedabad
- CSV -- Centre for Science for Villages, Wardha
- Department of Tourism, Government of Odisha
- DPEP, State Governments
- Embarq, New Delhi
- Essar Foundation, Mumbai
- Finar Foundation, Ahmedabad
- I2We Foundation, Ahmedabad
- IndExt-C, Government of Gujarat
- Indore Municipal Corporation
- *Lokbharti*, Sanosara
- *Lokmitra*, Dhedhuki, Rajkot.
- Mahatma Phule Samaj Seva Mandal, Solapur
- Mehsana District Collectorate
- NFD -- Nehru Foundation for Development, Ahmedabad
- Nirmala Convent School, Rajkot
- Patria Hospitality Services Ltd. Patria Projects.
- Rajkot District Collectorate
- Rajkot Municipal Corporation
- Rotary Club
- Saurashtra Sajeev Kheti Abhiyan, Rajkot
- Shri Devendrasagar Surishwarji Religious Trust
- SSA, various states.
- Suzlon Foundation, Pune
- The Toyota Foundation
- UNICEF India
- *Viksat*—Vikram Sarabhai Centre for Development Interaction
- VVP Trust, Rajkot

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<sup>1</sup> The list shown in alphabetical order







### Concise List of Projects Done/On-going

Project Name	Project Location	Project Year (starting year)	Project Cost (INR)	Project Description		Clients	Recognition
				Building Type	Category		
Sir J High School	Lakhtar, Dist Surendranagar	2003	5000000.00	Institution	Built	Village Panchayat and DPEP	
Resource and Training Centre	Bilpudi, Dist Valsad	2002	350000.00	Institution	Built	CEE and Van MahaVidyalay	Special Mention (Young Enthused Architect Category) in A+D Spectrum Architecture Awards, Year 2005
Anand Shala -- Primary School Upgradation	30 villages in Vadodara, Dangs, Valsad District	2003	6700000.00	Institution	Built	CEE and UNICEF	JK White Cement Young Architect of the Year Award. 18 <sup>th</sup> Cycle. 2008 and
Residence for Dr. U N Shah	2, Collegewadi, Rajkot	2005	1000000.00	Residential Studio	Built	Self	Special Mention (Young Enthused Architect Category) in A+D Spectrum Architecture Awards, Year 2009
Documentation of Darbar Gopaldas Haveli	Village Vaso, Dist. Kheda	2005	50000.00	Residential Property	Documentation ; Measured drawings	YS Shri Mandhatasinhji of Rajkot	
26 Jan --Tableau design	Rajkot	2006	150000.00	Product design/float	Built	Collector, Rajkot	
26 Jan--Exhibition Design	Rajkot	2006	10000000.00	Exhibition Grounds	Built	Collector, Rajkot	
Primary School Upgradation	Village Rajpur, Dist. Gandhinagar	2006	300000.00	Institution--School building	Built; On-going	Principal, Primary School, Rajpur. Via Parthesh Pandya	

Project Name	Project Location	Project Year (starting year)	Project Cost (INR)	Project Description		Clients	Recognition
				Building Type	Category		
Aapni Shala--Primary Schools Upgradation	18 Villages in Ta. Halvad, Dist. Surendranagar	2006	5000000.00	Institution--School buildings	Built	CEE, RPG	Special Mention (Young Enthused Architect Category) in A+D Spectrum Architecture Awards, Year 2009
Heritage Walk	Rajkot	2006	200000.00	Awareness Initiative towards Conservation of Urban Heritage	Executed	RMC, Rajkot	
Tractor Shed	Chadadhra	2007	300000.00	Garage	Built	CEE, RPG	
Randarda-Lalpari Lake Development	Rajkot	2007	270000000.00	Urban Design	Proposal	RMC, Rajkot	Project approved by GOG
Bus Stop	Rajkot	2007	50000.00	Street Furniture	Invited competition entry	RMC, Rajkot	
Private Hospital	Mundargi, Gadag, Karnataka	2007	5000000.00	Hospital	Architectural Design Consultancy	Suzlon Energy Pvt Ltd	
Mobile Education Unit	Gujarat (Kutch)	2007	500000.00	Mobile Unit	Built	CEE, RPG	
Alteration of Residence for Shri Irfan Tabani	Rajkot	2007	600000.00	Residence	Built	Shri Irfan Tabani	
Residence for Shri VJ Thaker (Vishnubhai)	Gondal	2007	2000000.00	Residence	Proposal, Unbuilt	Shri Vishnubhai Thaker	
Residence for Shri Paresh Patel	Gondal	2007	1500000.00	Residence	Built; On-going	Shri Paresh Patel	
Residence for Shri Kamlesh Dave & Shri Jagdish Dave	Gondal	2007	1600000.00	Residence	Built; On-going	Shir Kamlesh Dave	

Project Name	Project Location	Project Year (starting year)	Project Cost (INR)	Project Description		Clients	Recognition
				Building Type	Category		
Biodiversity Conservation Resource Areas -- <i>Sanjeevani</i>	10 Post Basic Schools in 4 Districts of Gujarat	2008	1100000.00	Institution	Built; On-going	CEE, RPG	
Integrated Village Development Plan, Village Ravki, Ta Lodhika, Dist Rajkot	Integrated Village Development Plan	2008	50000000.00	Urban Design	Unbuilt	Suzlon	
"Anand Shala"--Primary Schools Up gradation	11 Villages in Ta. Waghodia, Dist. Vadodara	2008	3200000.00	Institution--School buildings	Built	CEE, RPG	
"Anand Shala"--Primary Schools Up gradation	19 Schools in 14 Villages in Farfoud Cluster, Arang Block, Dist.Raipur, Chhattisgarh	2009	4700000.00	Institution--School buildings	Built	CEE Chhattisgarh	

# Brief Description of Built Projects\*

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\* Please refer to our website << [www.ourpeopletree.co.in](http://www.ourpeopletree.co.in) >> for visuals of projects and more information

## Anandshala, 30 Schools in Dangs, Dharampur and Chhota Udepur, Gujarat

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### *Anandshala - What is this project?*

A project to initiate interest and awareness towards education amongst tribal children with aims to uplift the education facilities (both software as well hardware) and physical environs in selected primary schools to develop them as model schools in the tribal belt of southwest Gujarat.

The project was carried out jointly by SSA, DPEP & NPEGEL of DoPE- GoG under quality education program; Project partners were CEE and ESI for professional inputs; UNICEF was the primary funding agency.

### *Anandshala - Why this project!*

- Anandshala project speaks for its participatory approach and the necessity to create a suitable built-expression at grass root level. Architecture here is considered as a metaphor to interpret socio-cultural learning from the wisdom of the “locals” to various stakeholders. It truly defines itself as ‘architecture for people’, expressing core vernacular attributes.
- This project’s success lies in methods to execute the architectural interventions and its coherence with other software activities proposed by various agencies involved. Anandshala proved a successful example to express synergies in architecture and socio-livelihood activities.
- In India, great concern is shown towards modern buildings designed by an Architect, forgetting the fact that most of our strength in architecture lies in sheltered places created by people and for people to suit their need. In spite of its importance, very little light is shed on vernacular approaches and the changing role of an architect.
- The reason for this/such project’s need is to generate awareness about the importance of vernacular methods and the role of an architect to work at grass root levels in order to be able to bring about a social change in a developing country like India.

### *Anandshala - Broad stages*

The broad stages of Anandshala project are outlined below:

- Selection of 10 schools (as pilot cases) from each of the three focus districts (Vadodara; Valsad; Dangs).
- Conceptualization and strategic support from DoPE (Department of Primary Education, Gujarat Government)/GCERT/UNICEF
- Collective visioning of dream schools by teachers and finalization of project components
- Professional inputs by CEE for conversion to practical plans & costing
- Implementation by School committee under guidance of project team
- Periodic guidance and funding by UNICEF to DoPE, GoG

### *Client’s Brief—from vision to visible*

We were initiated into this project with a six-point program outlined as under:

- Sanitation facilities for girls and boys
- Water points
- Rainwater Harvesting system (RWH)
- Interconnecting pathways
- Development of school gardens & fencing
- Development of RWH as assembly platforms

For us this program could be translated as ‘**architecture for the people**’. Thus evolved broad concepts such as “**place for drinking water**”; “**place for water storage**”; “**place for sanitation**”; “**scientific gardens**”, “**playful toilets**” etc.

These were the broad areas of intervention when the project started. It eventually ended in some thirteen points of intervention that involved not only the school but also its interaction with the village.

### *Architectural Methodology for the Implementation of the Program*

The design proposal for the improvement of the schools' infrastructure is a collective process involving the teachers; the students; the village leaders and finally the implementing agency.

**The design being essentially participatory and self-generating.**

The master plan of the school as envisaged after the first site visit gives an idea of the relationship between the issues outlined in the general architectural program. **Master plan being an indicator of possible built interventions.**

The architectural proposal develops a detail as a generic type that fits all schools. These details were envisaged out of the needs of the users and during the site visit. They were developed keeping in mind various conditions that it may have to encounter in the course of the actual implementation. These conditions and parameters includes material availability; profile and size of the individual members; the soil conditions; technology; manpower resource, etc. **The modification being a subject of the particularity of the site and of the region.**

### *Work Method*

Sr.No.	Topic/Work description	Agency
1.	Unit Design (as mentioned by UNICEF)	Architects
2.	Unit costing and rate analysis	CEE, engineer
3.	Proposed budget for every school	CEE
4.	Master Plans (based on the proposed budget)	Architects
5.	Site Visit –2	Architects, CEE
6.	Modifications in the master plan and in details in sketch form only, during the site visit	Architects, CEE, concerned people
7.	Line out – Site Visit—3	Architects, CEE
8.	Construction	CEE, Agency approved by CEE
9.	Site visit—4 during the course of construction work	Architects, CEE

*We as architects were part of CEE's facilitating team as consultants and were responsible for architectural inputs and engineering designs and building plans as hardware activity to work hand in hand with the software component.*

### *The Project strength*

- Project gets its strength from its self-generative design approach. The formation of a toolkit based on the selection of tools and the subsequent making of places with it helped in maintaining overall unity in the design approach. Thus, the prototypical toolkit got modified for every school and became sort of a guiding point, an idea, rather than a preconceived functional structure.
- Understanding the psychology of children, schoolteachers and providing spaces for their aspiration was an important aspect.
- Post occupancy analysis and various reports have proved that the interventions have been met with a fair degree of success.
- This project is now being implemented in various parts of Gujarat as well as different states of India, with a similar framework.

***“To us, this is a sure sign that our initiatives have hit the right notes in moving the process of improvements in quality of primary education in rural India.”***

### *Toolkit & and the local context*

Having identified the areas of intervention, a toolkit was designed, that would be flexible enough to accommodate various site conditions. This was in the form of basic drawings of individual elements, e.g. toilets, RRWHT, walkways, paving details, etc.

Some points that were considered are:

- The fact that the schools were located almost 400 km *apart* and in distinct places, both topographically as well as culturally,
- This suggested that the toolkit would have to *modify* from place to place to respect the context of various socio-cultural boundaries.
- This was not possible without actually staying at all the villages and closely observing the school and it's functioning. At the same time, certain familiarity with the primary education and the teacher-student interaction was also attained. This was achieved by way of interviews with the principal, teachers and students, both formally and informally. Workshops were conducted to outline and understand their aspirations and needs that should be incorporated in the new design.
- Thus, with the toolkit in place, thirty (30) different master plans were prepared, one for each school, to suit their environment and local culture. After deliberations and more meetings, these master plans were now ready for the production of construction drawings for execution.
- At this point, the quality of construction was important. Close interactions with the engineers and site supervisors ensured that good workmanship was achieved. To us, this was an important distinction compared to the regular government sponsored projects wherein, the beneficiaries looked at their role as only the provider of finances. The involvement of the teachers to ensure proper quality helped to strengthen the idea of respecting the 'locale'.

***“We used to travel like nomads, for over a year and a half, to supervise, clarify, modify the work being executed. Travelling from place to place and completely involving oneself with the region and its people for their betterment was very inspiring”***



## Crèche and Play Area, CEE, Ahmedabad

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The project called for a design of a crèche under an existing ramp! The design brief was to develop the un-utilised space as a play area cum outdoor seating for the children from age 2 to 8.

The design evolved by making colourful mosaics of fishes. CEE has a very big fishpond. This place is a constant attraction to the children who visit the campus. Thus the theme of the crèche.

The execution of the project was a participatory process, with decisions taken on site depending on the given condition. However, an overall drawing was made to ensure conceptual clarity. The fishes were abstracted on computer to fit the existing site; cut to shape in plywood and subsequently laid out on the ground full size.

## Sir J High School, Lakhtar.

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The project was funded by the PM Relief Fund and was a part of School Rehabilitation Project taken up by CEPT, Ahmedabad. This involved complete re-designing of the existing high school at Lakhtar. An important consideration was the earthquake resistance design required in buildings built post-earthquake all over Gujarat.

The site of Sir J High school is located within the fort wall, just inside of the 'Athamno or the west gate' of the village. There are roads on three sides and a private residence on the East Side separated by a nullah. The site is gently sloping from the south to the north. There is a nullah to the northern and eastern side, which carries the surface run off during the rainy season.

Primary built form of the village comprises of load bearing walls covered by gabled/pitched roof out of wooden truss and covered with Morbi Tiles. Most of the buildings rise up to a maximum of two floors above ground. To avoid the harsh sun, very few structures face west. The upper floor is projected by about a metre in most cases. This end is towards the street and it comprises of panelling out of wood and brick infill wall. This thus forms the façade of the building towards the street side. The other end however continues to be load-bearing wall.

The attitude taken for this project was a strong belief in the traditional load bearing structures, especially, since the area requirement didn't require one to go high. Thus, a building reflecting the local architecture with a gable roof was preferred over conventional RCC buildings with deep foundations. Brick wall over stone plinth walls and Corrugated Cement sheets and steel truss were the main building materials.

There were three buildings within the Sir J High School. First building (to the south of the site) was built in 1911 (and is identified as Bldg. 1), second and third in 1926 and is identified as Bldg. 2 and 3 respectively. All the building had been altered and modified over the period of time and by various agencies from local contractor to the State PWD after independence.

The design brief outlined repairs and retrofitting of the existing buildings and suggestion for demolition if needed besides provision for the expansion and growth of the school for the next decade (estimated at an increased in strength of students by about 200; bringing the total strength to 700 from the existing 481). The school though originally a co-ed in imparting education is now going to be only for boys since Lakhtar has a separate girls' school.

Building no. 1 suffered damages to its wings. Also due to the alteration made upon it before it had lost its original character. We therefore decided to alter the building completely and house all the new facilities at the same place. This building would now house the classrooms. With the side wings demolished, the central hall that housed the library is now being converted into a court, open to sky; with old walls surrounding it. The new classrooms are formed around this court. The wall will form one part of the passage linking the two wings of the new construction physically and with the old building to the new metaphysically. This court is envisaged as a meeting place for the school children during their play hours and also as a place for a small formal gathering. Though open to sky and the elements, the high walls forming the court gave a sense of shelter and institutional scale. Also the old opening that once opened into the library and connected the rooms of the wings are converted as seats and gateway to the court.

The relationship between the old and the new is established by the language of fenestration; height control; regulation of the plinths and formal composition.

However, due to unforeseen reasons, the project was not built as per the drawings.

## PROGRAM

The program involves the division of the proposal in to four broad zones

*Disaster—the reason*  
*Contemplation—the memorial*  
*Research and*  
*Awareness*

### Architects Statement:

Creating a place that's intimate and civic.

It is a place filled with sorrow and tragedy....and wrath!

The place should move the soul of the visitor toward a sometime unexpected realisation.

*It is not about what happened.*

*It is about "how it will not happen again"*

*It is about "why it should not happen again...!"*

It is about understanding the present... with relation to the past.

*No names*

*No symbols*

*No images ...can represent the inconceivable.*

ONLY AN IMAGELESS PRESENTATION {..BUILDING (?)} WITH A DEEPENING SUBSTANTIAL PRESENCE MIGHT DO IT.

NO NAMES OF VICTIMS ARE APPROPRIATE HERE...THEY ARE STILL SUFFERING!  
AND NAMES OF PERPETRATORS ARE WHOLLY INADEQUATE WHEN SPEAKING OF AN INCIDENT, WHICH HAD A NATIONAL DIMENSION.

*(after Libeskind)*

## FORM & MATERIAL

*the spatial expressions precedes the elemental orders. the architecture is out of locally available sand stone and cast-in-situ concrete.*

*the outdoor elements in boulder concrete set against water; trees and dry grass softens the harsh and desolate grounds that one sees today.*

*the massing evokes the unrested site*

## ENVIRONMENTAL CONCERNS

*the vast forested areas provided in the east and south east parts of the site is in anticipation of reclaiming the lost soil. This area will help in preventing soil erosion thereby protecting the immediate environs.*

the grounds of the UCIL are contaminated. it is proposed to retain all the rainwater falling within the site in pools located at various places.

*further efforts to detoxify the water is by way of rain-water harvesting; filtration and subsequent ground water recharge. the site with a total area of 24.88 hectare receives 0.248 MCM of rain water annually. the available roof area is approximately 3000 m<sup>2</sup>. thus, almost 1.5 million litres of water can be effectively collected. it is proposed to use this rain water for all the water needs by employing modern RWH techniques.*

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\* This is an excerpts from the proposal sent for the competition.

## A Theme Based Tableau on Rajkot District

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### CONCEPT— 'Tableau a moving sparkle'

A tableau is an arrangement depicting a scene or a theme. A tableau when placed on a mobile platform can be an effective medium to propagate the message by way of a chosen theme. This can be so arranged as to catch attention of a wide-ranging audience, from children to adults. However, since the tableau is not a stationary object/medium, its design should be such that one is able to convey the meaning within a split second, just when it is passing by in front of the viewer.

We were given the task of design of a tableau depicting Rajkot district. Gujarat Government has declared Year 2006 as 'the Year of Tourism'. Thus, the theme for the tableau was centred on Tourism and Festivities (within the district). We carried this further to even project Rajkot as not only a progressive district but the city as an important tourist melting pot for the avid traveller who wants to explore the land of Saurashtra. Rajkot is the veritable gateway to Saurashtra. Abstract notions depicting various centres of tourist interests in the district were set in an overall composition of intersecting planes, such that the whole established the importance not only of these places but also enhanced the values and pride that Rajkot stands for.

The design is based on a system of module—an assembly of panels, four feet by four feet in size and each capable of connecting with each other. When not in use, these can easily be disassembled and packed in a box. This allows for their safe and speedy transport from place to place. This idea makes the panel more adaptive to be exhibited at various events. It's thus, a permanent temporary gesture! And at no extra cost!

At the same time, the design of the panels is independent of the transport system (in this case, a truck) thus, allowing the tableau to be exhibited at a stationary location also. The panel assembly when erected stands on a platform out of wood, made strong to lie flat. The platform is supported by a number of vertical struts that are more planar than nodal and they in turn act as legs, when the platform is not resting on a mobile element. At other times, they are three-dimensional elements depicting places of interest of the district. Various other three dimensional elements are used in the design to articulate the formal composition of the design. These are scaled models of a gate of a city or there is part of a 'chhakada'—that popular and all-purpose vehicle of Rajkot. There are also mock up of the famous street lighting of Gondal town.

To add a bit of movement and to introduce an element of surprise, there are a couple of live characters depicting a stage of life of famous personalities hailing from Rajkot. These characters are important to describe the spatial composition of the planes and will thus grab attention of the viewers. The vibrancy and festivities are abstracted with joyous colours that so naturally characterize the people—peace loving and hardworking, and place that is Rajkot. We have collected all necessary information regarding tourist places from available resources and to add to it have personally visited places to achieve the same magnitude in Tableau.

We – who belong to Rajkot and this land, welcome you to explore a part of us!

### Tableau Information:

Front part of the tableau is decorated with a 3-dimensional model of Bedi Naka – one of the city gates of Rajkot with a mock up "Chhakada" protruding out from the gate panel. The main body contains division of spaces made with panels to focus on different taluka in Rajkot district. Here, we have displayed pictures of important tourist locations with models of important character of that place.

First panel has Kuntasi (Ta. Maliya, Dist. Rajkot) – a Harappan Industrial Centre and Rojadi (Ta. Gondal, Dist. Rajkot) – a Harappan Village settlement.

Second Panel has Morbi Darbargadh Entrance and Wankaner palace, creating interesting spaces with a model of suspended bridge - "Zulta Pul" in Morbi.

Third panel has pictures of Rajkot city covering various places like Raj Kumar College, Alfred High School, Swaminarayan Mandir, Ram- Krishna Mandir and an informative map with Jetpur printed sari. Fourth panel has images of Gondal Taluka, covering – Khambhalida Buddhist Caves, Old railway Station, Gondal Darbargadh and Orchid Palace with a model of Gondal street lamps. Images of important personalities are also displayed – Shrimad Rajchandra, Shri Dayanand Saraswati, Shri Jalaram Bapa and Mahatma Gandhi in his youth. All these panels are 4'x4' in size and foldable for easy transport and reuse.

The Tableau also has vertical side panels depicting land and people of Rajkot district. There are eight vertical side panels each admeasuring 2' x 6'starting from a cut out of Waghjibapa, then ruler of Morbi, Patola panel, the famous printing technique from Rajkot, Food panel depicting the special cuisine of Rajkot, ornaments and decoration, people and dresses all depicting various aspects of life and culture of Rajkot, a cut out panel of a Kathi horse and Satam-Atham Lok mela.

## Mobile Education Unit, Kutch

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### Part I - Introduction and Brief

The project involved design of a mobile school which could:

- Replenish itself
- Be interactive
- Become a carrier of education tools

The brief was to make a mobile school that could occupy approximately 30 school children from standard 4-8, age group 9-14 years. The finished design however, could easily accommodate and interact with about 80 students, when the unit was completely 'opened'.

### Part I – Preamble

The Mobile Education Unit (MEU) is designed as a changing/replenishing “mobile magazine” to impart a sense of exploration and curiosity to children. It is also thought of as a “mind vehicle” that can accept a variety of materials and equipments that will engage a group of up to 80 students in two batches—one working around the MEU and the other group of forty working near it. Further, this is looked upon as a model to transport heavy and expensive equipments for demonstration purposes to far flung areas in order to spread messages of social awareness and education.

### Part II – Overall Outer Structure

The Mobile Education Unit (MEU) has a bifold entrance/display doors. The doors have glazed windows and a mirror at the level of a child’s height. There are four sets of four fold out panels to accept display material and attached work desks at comfortable heights for children. These are protected on the outside by means of acrylic sheets and has a soft board panel sandwiched to accept variety of printed materials in sizes ranging from an A4 sheet to flex panels of up to 3 feet by 4 feet height. There is a canopy over the fold out panels providing protection from the weather. The canopy is made out of high strength fibre cloth. There is a metal skirt up to a height of 23 cm from ground to hide the running gear. There is a Plasma Flat TV at the rear which along with the opened up panels will act an enclosed space to watch programs. There is a 150 W Public Address system which also “opens out” when needed. A DTH disc specially procured for the purpose will receive education programs that will aid the school children in their learning processes.

The roof of the MEU is designed to accommodate solar panels; water scoop to harvest rainwater to be collected in tanks within the unit.

The body of the MEU is primarily built out of steel.

### Part III - Interiors of the MEU

Between the bifolded doors are various storage spaces for the TLMs; a Plasma TV; audio-video systems; loud-speaker and Public address systems; bunk beds for two and a desk. A large part of the platform is kept free to house various oddly sized equipments that the MEU might have to haul. The materials used in the interior are largely out of wood; metal; upholstered cushions; etc. The floor is of vinyl sheets laid on plywood.

## The Existing Conditions

### *The site*

The site is a square wooded plot of land admeasuring 726 m<sup>2</sup> with an 18 m wide road to the east and 7.5 m wide streets on west and south sides. The north edge abuts a commercial plot in the busy commercial heart of Rajkot City. This area was once a peaceful residential district next to the Rajkumar College, one of the oldest K12 public schools in the country.

### *Brief—saving the 'old'*

The process of making residential studio spaces started with the preservation of natural elements originated over the years. Spaces created by trees and the existing outhouse foot print on the plot were a prime governing factor to design new premise. To explore local skills and resources were indeed a starting point to realise scales and material wealth of the region.

### *The Courts and the Traditional Type*

The inherited site was un-inhabited for almost 18 years. Over these years, the outhouse structure, made with Kaccha masonry went in to decay and started falling apart. During the intervening period, couple of 'Umro' and a 'Peepal' trees grew in one of the room spaces. Respecting the trees and their existence, two courts were made replacing room spaces, to invite air, light and water for the existential.

This then resulted in a physical separation between the private and public parts. The built form represents the typical old vadi house, with a long verandah space facing the arrival area locally known as *Faliu* and rooms locally known as *Ordo*. Due to by-law constraints and restating the traditional type, the new design became linear where the two parts of the building are connected with a single east-west verandah and the three spontaneous trees, one *Peepal* and two *umro* were accommodated in to two courts along the plan. The roof-scape evolved out of the necessity of using no concrete as required by the local authority, favouring the decision to make the building climate concerned.

## Architectural Regeneration

### *Method of construction and Material explorations*

The building represents an amalgamation of contemporary modern techniques with traditional methods of space making as well as construction. The house demonstrates the potential for using used building material in a domestic building. In a way, it represents a clear thinking approach to the design of efficient, economic and comfortable building using the technology and materials that are local and 'of the day', and is not concerned with 'style'. The building was very fortunate to get the help of a contractor in his mid nineties, who built many old buildings of Rajkot. Care was taken to ensure speedy construction with minimum of material and efforts to achieve a holistic space. Using modern techniques to lay out drainage and water supply lines at the stage of foundation was first of its kind in the city. The use of twin chamber double action septic tanks ensured that the waster water was sufficiently treated to be used in the sprawling garden of the plot.

For us Architecture is a way of expressing honesty and local wisdom, which makes the design wiser then the builders. This design was also to reflect the inner sensitivity to the space making exercises to suit the regional architecture. This residential studio is a backdrop to the trees long existed. A humble backdrop which, sympathises with nature, talks to sky and invites air to meander into small openings. The arrival court slowly shifts its point of focus and celebrates the linearity of the built. Movement of air and light washing the walls took shape of

the courts and the slit windows. Verandah became a place to be with and within. Outdoor spaces become places to share close moments. The fishes in the pond of a Peepal tree court, sing with rays of sun through the leaves of the tree and plays with the fallen fruits. It is a place to celebrate nature and time, at the same time having a nostalgic feeling of the history sang by the trees around.

## *Material Palette*

The material palette was brick load bearing walls with a single lintel band out of concrete. The sloping roof was supported with flitch plates and the traditional system of Morbi tiles was used.

### **Wood**

A lot of old buildings are pulled down in the region, timber from which is of really high quality. There is a huge demand for such wood and we realized that giving new definition to this wood in terms of its use will not only save on the material cost but also on the making time of a similar quality fresh wood. Thus, the wood used in the construction of principals; posts; doors and windows is recycled, it being sourced from houses pulled down in the region (some wood used in the house has come from places as far as 100 km). Certain wooden sections in detail even show memories of previous use, which is left as it is to be seen and remembered. Thus, some of the elements were made out of similar elements of old houses typical of Saurashtra style, e.g. eaves boards; while some were reused and transformed, e.g. a wooden post became brackets supports.

### **Pre-cast concrete frames**

All doors and window frames are made with pre-cast concrete frames, comes from Gondal town, which is only 30km. from Rajkot. This makes the construction not only locally resourced and efficient but also greatly economical. Various possibilities in assembling them create interesting windows for different uses.

### **Local Stone – *Kalmidh* and Brick**

We realised that locally available bricks were not of a very good quality because of the available sand quality, all the wall surfaces are lime plastered with lime paint finish. In design were the material needed to be exposed, local stone is used in terms of random rubble masonry.

### **Pre-Laminated boards**

The Under portion of the roof is done with Pre-laminated boards. They also work as an integral part of structural system of the roof.

### **Metal sheets**

Metal doors have metal sheets as filler plate. These are obtained from industrial waste as Rajkot is famous for its metal industries.

## *Details*

The building details are predominantly governed by the wood sizes and availability of local materials and elements used. However, these constrains worked towards being innovative. The detail of the window shutters is done using the local craft person's skill. Flitch plate system is used to reduce the amount of wood used and also to stabilise the roof in an efficient way. The termination of random rubble stone masonry is done following the precedents from old buildings of Rajkot. Roof eave is done with using same members as used in regional traditional buildings. Above all, all though the used elements are from traditional buildings, the way in which they are used is extremely contemporary and apt with today's context and time. Similarly, stone used in flooring is of various sizes and grades. Flooring pattern ensured zero wastage and leftovers.

## *Climate*

The building responds climatically by thick south walls; open and deep north side verandahs; north south orientation; raised ceiling height; provision of north light and ventilators; an open to sky court with a small water body in the centre of the plan and use of local natural



materials. The louvers and opaque shutters of windows help maintain the temperature and control glare and dust.

## *Economy*

Economy plays a major role in every aspect of this building design. The very idea of making the building using same footprint and respecting the original configuration was the first step towards economy. Not only using the wood from the old demolished houses, helped saving a lot of natural resources, but also utilising material from near by region and local resources in terms of building and detail development was extremely useful in making the building economically sustainable.

## Biodiversity Conservation Resource Area– *Sanjeevani*.

### 10 schools in Saurashtra & S Gujarat

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#### *Background Information*

Biodiversity Conservation Resource Area is a project by Centre for Environment Education, Ahmedabad funded by the Toyota Environmental Activities Grant Programme of Toyota Motor Corporation, Japan.

The proposal was raised by CEE, Ahmedabad and consequently, BPS Architects were commissioned as partners in charge of all built infrastructure intervention as well as execution consultants. The architects played active role in developing the project outline as well as co-ordinating with various aspects of built work in relation to the school curriculum. The actual work started in February-March 2008. The construction started in October-November 2008 and lasted up to June-July 2010.

#### *Premise*

The premise of the project rests on the basis that the present model of school education lacks adequate linkage with real life and livelihood of the surrounding area. The project stressed on the importance of linking community education through school education, a field that is increasing seeing less popularity in present times. Another lacuna of the school system is the lack of experience-based learning of local biodiversity in the school curriculum. The linking of conservation, experience-based education and extending experiment-based learning to the community level need to be supported and strengthened. The *Sanjeevani* project tackles these problems and needs through developing the potential of schools for community based conservation and education approach.

#### *Location*

The project will be implemented in two major ecological regions of Gujarat, India, viz., the sub-humid ecological region of South Gujarat's tribal belt that is extremely rich in medicinal plant diversity, and the ecologically fragile, semi-arid ecological region of Saurashtra.

The project will be implemented through 10 Post Basic Schools. PBSs will be the focus for the creation of Biodiversity Conservation Resource Area (BCRA) including garden of medicinal plants linked to the development of a system for using the plants within a health care structure.

#### *Primary Objectives*

The project goal is to conserve and sustain medicinal plant biodiversity in Gujarat state, India through school education and community actions in rural areas of Gujarat state. The objectives of the project are

1. To integrate knowledge of biodiversity and medicinal plants back into the programmes of schools
2. To link the scientific knowledge of the use of medicinal plants present in Ayurvedic universities, hospitals and research institutes with the local needs and natural resource usages in the PBSs and community.
3. To create an informal system to provide knowledge of medical plants and advice on their use to the community,
4. To develop a system of cultivation of traditional medicinal plants in PBSs ground.
5. To create a greater community awareness of and pride in and respect for the use of medicinal plants
6. To establish community micro enterprises to grow medical plants as a commercial venture.

## *Architectural manifestations*

The project brief was divided in three broad areas of active built intervention. These were,

- Medicinal Plants Area Design
- Educative Components Design
- Recreational and Learning Components Design

Each of the above was then translated into tangible form of building elements, each particular to the context and climes of the school and the village.

### **Medicinal Plants Area Design**

The main purpose will be medicinal plant conservation and raw material for health care.

1. Herbs – Approx. 30 spp. Which needed 60 planter beds (2 per spp.) Additionally about 30 planter bed space provisions was to be kept for future expansion. The future expansion will take place based on the experiences/need of first year of the herbs, if particular herbs require more then next year more planter beds may be allocated for those particular herbs.
2. Climbers – Approx. 20 spp. These needed no defined planter bed area. It needed only space provision demarcation. Climbers needed a structure of bamboo/metal poles, a Mandava or a appropriate tree nearby to climb it.
3. Shrubs and Trees – Approx. 50 spp. These also didn't require any planter bed. Only appropriate landscape design according to the objectives, feature and purpose outlined for the BCRA.

### **Educative Components Design**

The main purpose of this component was to make the BCRA more educative and establish inter-linkage with the school curriculum. The space had to be incorporated in over all conceptualizing and landscape design for the following educative components.

1. Nursery
2. Composting/Vermicomposting/bio-waste management
3. Green Manuring
4. Activity/Talk/Session area
5. Interpretation Area/spaces
6. Technology demonstration area/spaces e.g. irrigation, soil conservation etc.
7. Reading area/spaces
8. Observation/Experimentation area
9. Rare and extinct spp. Area
10. Ethno-veterinary medicinal plant area
11. Ayurveda special area (e.g. triphala area)
12. Bird nesting area
13. Pond area
14. Memorial plantation area
15. Cactarium
16. Special feature area e.g. Rashi van, Panchvati, Nakshatra van, nav grah van, etc.
17. Signage spaces
18. Herbal making area

## Recreational and Learning Components Design

The main purpose of this component was to turn BCRA in to a recreational and learning zone. The following components were to be incorporated in over all landscape and concept of BCRA.

1. Sanjeevani Kutir, a hut
2. Mountain/Hillock, a kind of rockery
3. Live fencing, bio fencing wherever required
4. Various shapes from vegetation
5. Internal pathways for children to meander through the garden area
6. Gate
7. Seasonal flowering pattern
8. Combination of multi coloured flowering pattern
9. Lawn area
10. Walk area
11. Small play area
12. Medicinal plants trail
13. Other recreational spot