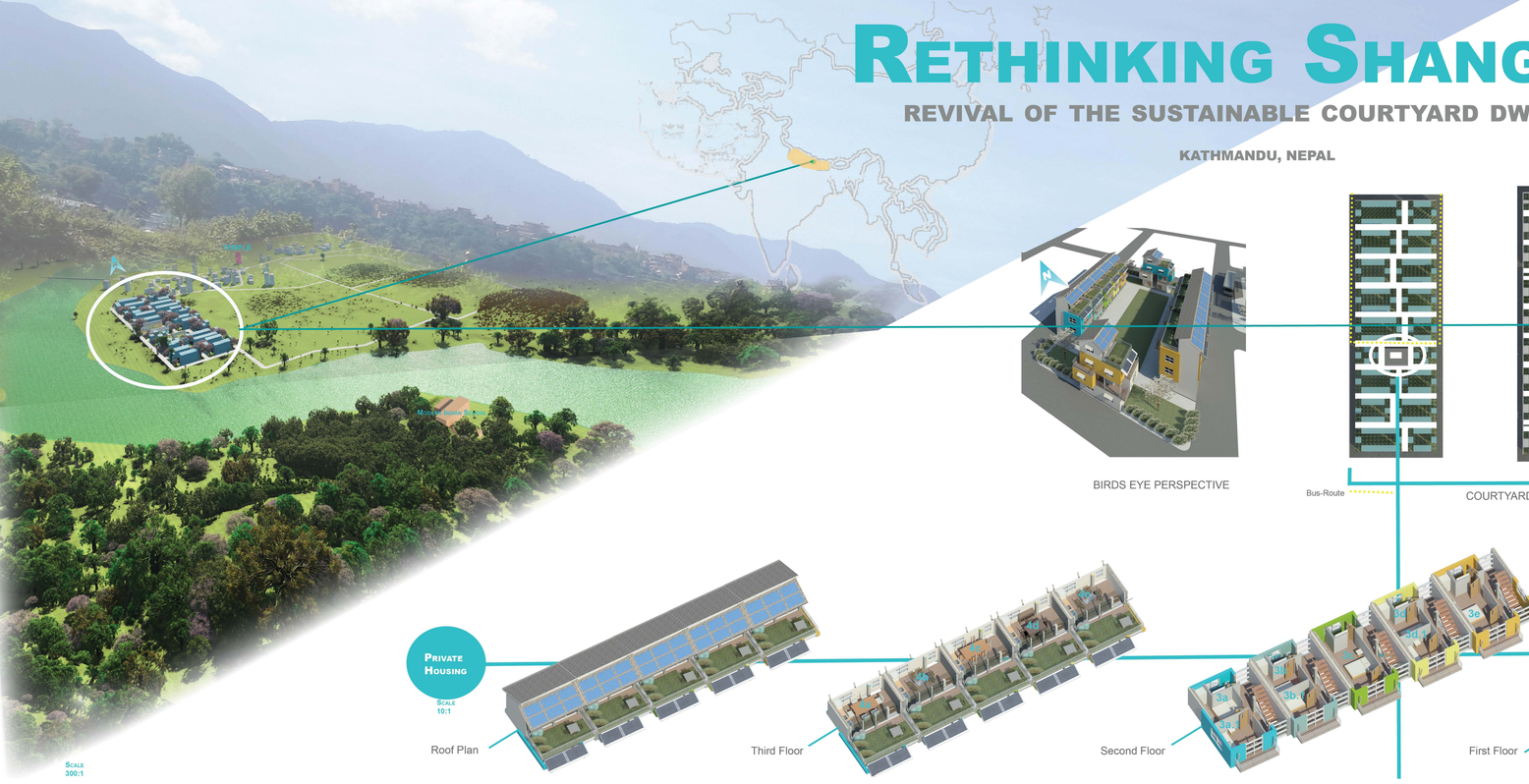
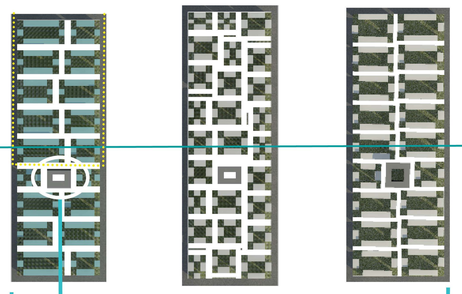
RETHINKING SHANGRI-LA

REVIVAL OF THE SUSTAINABLE COURTYARD DWELLINGS

KATHMANDU, NEPAL



BIRDS EYE PERSPECTIVE



Bus-Route

COURTYARD CONFIGURATION STUDY

KATHMANDU DURBAR SQUARE
COURTYARD STUDY

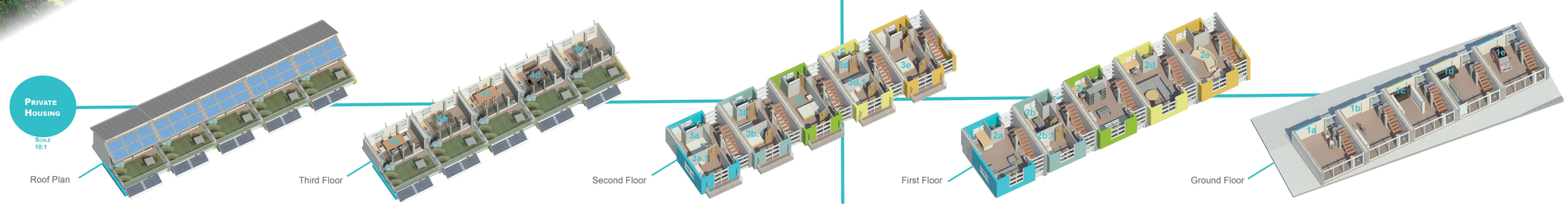
The housing units are personalized according to the user needs. Open floor plan are sold to the buyers and they customize the interior space and facade according to their own need.

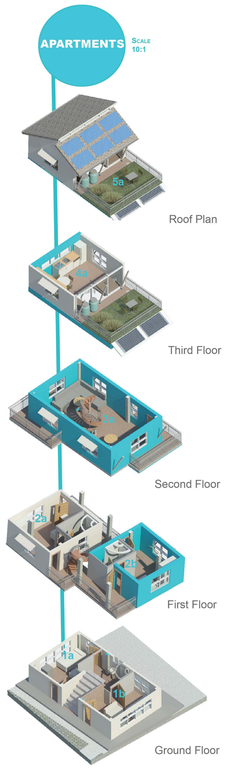
APARTMENTS:

1a, 1b- Efficiencies
2a, 2b - Bedrooms
3a- Common Living Room
4a- Common Kitchen
5a- Outdoor living/dining

ROW HOUSING:

- 1a-Storage; 1b-Storage, 1c, 1d-Retail, 1e-Parking
- 2a, 2b, 2c, 2d, 2e- Living Room; 2b.1-bedroom
- 3a, 3b, 3c, 3d, 3e- Master Bedroom; 3a.1, 3b.1, 3d.1-Bedroom
- 4a, 4b, 4c, 4d, 4e- Kitchen and Dining
- 5a, 5b, 5c, 5d, 5e- green roof /Outdoor Dining





The Story

When walking down the streets of most of the cities around the world, one is often made to wonder where exactly he or she has found him or herself ... the new urban centers closely resembling one another. The process of creating a 'global village' is the development of a symptom called 'social and cultural homogeneity' for which cities are losing the sense of place. Globalization and technology has infiltrated into the far corners of the world and Kathmandu hasn't been left behind in this process of creating a 'global village' especially in the housing sector.

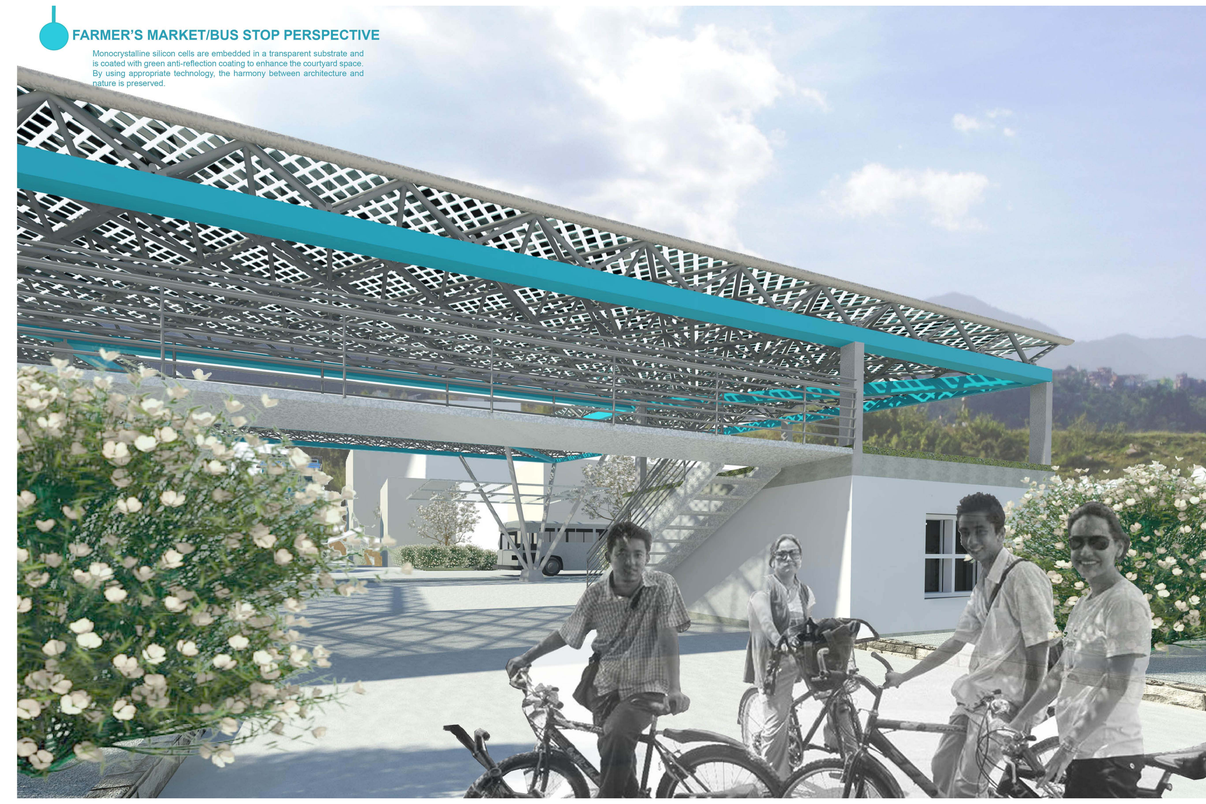
While these new urban centers have improved the lifestyle of people considerably, the vernacular architecture which had been in perfect harmony with nature for hundreds of years ago has been neglected. Vernacular architecture is a reflection of the climate, culture and society. The city can still maintain it's identity as a sustainable city which it once was by using the most progressive sustainable technology of today ... and still keep keep its cultural values.

SOLUTION:

Row houses and apartments units are clustered in courtyards and are designed according to the needs of the current day society to realize the importance of culture and amalgamating it with technology at the same time to be a part of the global world.

FARMER'S MARKET/BUS STOP PERSPECTIVE

Monocrystalline silicon cells are embedded in a transparent substrate and is coated with green anti-reflection coating to enhance the courtyard space. By using appropriate technology, the harmony between architecture and nature is preserved.



SUSTAINABLE STRATEGIES

The roofs of the dwelling units are covered with 6 modules of monocrystalline silicon panels which produces more than enough energy according to requirement of Kathmandu, the excess of which can be sold back to the grid. Photovoltaic panels are oriented toward the South with the angle of 26.9° which corresponds with the latitude of the valley.

Each unit is provided with two solar water collectors. One of them is used to provide hot water for domestic use and other one is dedicated for the purification system for grey/rainwater in conjunction with the living machine. Daylighting is made possible with the extensive use of curtainwall facade and operable windows make natural ventilation possible as the wind normally blows from the south which works well with the orientation of the units. The roofs and overhangs are designed in such a way that it allows enough light in the winter to heat up wth terracotta tiles to warm up the space and keeps the warm sun away during summer. Also deciduos native trees like peach and persimmon help in keeping the sun away in summer and warming up the spaces in winter.

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