Re-shaping Venice
Enrico Fontanari

In November 2010, a joint Urban Design Studio on the re-shaping of the urban form in Venice was undertaken with staff and students of the Master in Architecture of the Iuav, Italy, and of the Master of Urban Development & Design of the University of New South Wales (UNSW), Australia. Through this workshop experience, the students were able to investigate new design paradigms, capable of adapting themselves and evolving in different contexts, operating at a generic level while recognizing the local values. Particularly, they had to face the challenge of designing modern architecture within an urban and natural environment strongly characterized from an historical and heritage point of view.

Heritage cities and landscapes are a relevant concept born within modern architecture and urbanism. Their preservation for contemporary life is today one of the most exciting challenges for planners and designers since this requires the development of sharp sensitivity to detect old rare features and latent qualities; the feeding of a deep specific cultural background; the development of clever design skills to interpret patterns, spaces, forms so that their original concept is respected but modern urban life finds the best possible shape and fascinating forms. Therefore the students were asked to carry out a critical survey of the urban space of Sant’Elena, meaning to investigate the genius loci with the objective of relating it to the design logic. The instruments of design should allow for a comprehensive of signs, of the inertia of the past, of transformations and changes of the objects that we study. To design not only for transformation, but also for preservation means to decide upon what to transform and for whom, to select the objects and the phenomena to be surveyed. The students survey and design activity was finalized to investigate and understand the interactive play between the existing tissue and the new proposals, to study and experiment new possible forms of the relationships between cityscape and landscape.

The aim is thus to set forth the process of interpretation, evaluation and transformation: where transformation can mean restoration or active conservation, substitution or addition and innovation. This successful collaboration between students and professors of the two institutions on this complex regeneration project, represented also an opportunity for an advancement in teaching and research by design in the two schools, the Università Iuav di Venezia and the University of New South Wales, and leads to further opportunities for joint ventures and academic exchange.

The Iuav-UNSW Venice Studio, 2010-2011

James Weinick

The Venice Studio, initiated by Professor Enrico Fontanari, created the opportunity for graduate students in urban development and design from the University of New South Wales, Sydney to work with students and staff of Iuav on a project grounded in the Venice tradition of urban morphological studies. The project involved the regeneration of Sant’Elena island at the eastern end of the centro storico. Sant’Elena includes the Giardini site of the Venice Biennale, a social housing estate of the 1960s, a naval academy, a sports stadium and various waterfront industrial estates slated for redevelopment. The largest of these is the maintenance yard of the Azienda del Consorzio Trasporti Veneziano (Actv), the public transportation group of the city, which is planned for relocation to Tronchetto, the industrial island of the 1960s at the western end of the city, leaving a site 6.5 hectares in extent at Sant’Elena.

The Studio mapped and reinterpreted urban elements on each of the sestieri of the historical city, critically examined recent housing projects by Vittorio Gregotti, Aldo Rossi, Álvaro Siza, Cino Zucchi and others, and in the workshop setting at Iuav, generated schemes for Sant’Elena in the spirit of an ideas competition.

Back in Sydney, the UNSW students reworked these propositions into a series of strategic directions which could inform a future design competition for the Actv site and its setting conducted by the city authorities.
Stemming from our study of Cannaregio, we observed that certain parts of Venice are impermeable by the public. This is a result of physical constraints and the need for privacy. We decided to break down both physical and visual barriers, corroding the mass and increasing porosity. The porosity of the sponge and its ability to retain matter became the starting point for the scheme. Studies of the sponge at a molecular level lent us an organic form which became the module for the master plan. The form of the tower as a landmark is a reappropriation of the typical form of the venetian tower. It relates horizontally to the landmarks of Venice and provides a common vista for the area. Both the idea of porosity and of the polygon operate at a macro and micro level. Porosity is a measure of the void spaces in a material, and is a fraction of the volume of voids over the total volume.
Poro[City] is a measure of the public space in a city, and is a fraction of the volume of habitable public spaces over the total volume of solid space. The Poro[City] precinct will support a new creative economy in Venezia. The design draws upon simple mathematical relationships that underpin complex organic structures of the sponge to create a modern urban form. Focusing on movement and connection, Poro[City] creates a permeable mega structure formed by inter-locking components. Two new bridges reconnect Poro[City] to the existing community of San Pietro and the Biennale, with improved access to Sant'Elena. A university of technology campus, located within a landscaped setting north of the Biennale. Building on the Venetian relationship between land and water, the morphology reflects tradition components of the city. The public realm houses the activity of a marketplace and intricate meeting spaces situated in the centre of Poro[City], punctuated by the tower offering conference facility, and unrivalled views down the length of Venice. International travelers will be able to rapidly connect with Venice through a transition space and marine environments.
Reshaping Venice to Venezia
Bo Cao, Alessio Bellin, Francesco Casella, Andrea Ruffilli, Chen (Helene) Jing

The site is located on the north of the island of Sant’Elena, the tail of the “Venice Fish”. As part of Venice, the new proposal should respect the local history and urban fabric. To better understand the urban form of the historic city of Venice, we did an analysis on the urban structure of one of the neighbourhoods of Venice, Dorsoduro.

With reference to this urban area, Dorsoduro is an historical site with a large number of galleries, monuments and hotels, which had crucial historical value and cultural value. The relationship between public monuments and private residential areas has interested us, those private sectors were enclosed in all public works. We were also interested in the street pattern which was formed by building and open spaces.

The location of Santa Maria was the center point set in the arc which was formed by San Marco, San Giorgio and Redentore churches; these three churches worked in concert with Santa Maria in the western corner of Dorsoduro.

This analysis has been enriched through the survey and review carried on some of the most important recent projects realized in Venice in the second half of XX century. One of the interesting projects identified during the research study is an intervention realized by Cino Zucchi in the island of the Giudecca. The project is in the area ex-Junghans – an old industrial site which was redesigned with the contribution of Cino Zucchi as a new residential area in Giudecca.

A group of new building façades was close to industrial like, with vertical axis of penetration through the site. A number of new canals were introduced in front of new apartments which resting on a long public portico, consists of a screen of stone slabs of different colours and textures. The simple water side is through ground floor by portals which increase its visual permeability.

Based on the survey and analysis carried on in the historic center of Venice, we designed a new proposal for the area of Sant’Elena.

Key issues addressed by this project include population, decline, the subdued nature of Sant’Elena and the impact of the former industrial use.

When we start from the city of Venice, we think about the traditional and harmonious waterfront life, urban space, functional organization and regional patterns in Venice. “Reshaping Venice to Venezia” suggests Sant’Elena should be appropriately interpreted and regenerated with a suitable “Venetian mechanism”, within a contemporary cultural and urban planning context.
The aim of the project is to create both temporary and permanent housing which serve local resident and international visitors. Our proposition is to improve the connectivity of this area as a transitional space to other insulas. At the time, this area will be designed as the home front for Biennale. The main concept ideas of the project are:

- a scheme that proposed a "harbour-side gateway" that faced the neighbouring island;
- a masterplan that strengthened connections to neighbouring islands by creating view corridors to nearby churches;
- a proposal for new bridges provides better connection to neighbouring islands;
- public buildings and spaces are proposed on the edges of the site which is the waters edge; private uses are towards the centre (of the site);
- divided the green and open space into three levels, which serve neighborhood, community and public;
- new public work was insert in this site, such as art factory, workshop, exhibition space, library and entertainment center etc.

To approach the project, we studied two neighbourhoods, Dorsoduro and Giudecca, some of them in the layout of buildings and roads edited form integration, added to the design of our new areas. It is worth mentioning that in this region there are three famous places, Guggenheim Collection, Salute Church and Punta della Dogana. However, there are two problems in this area is worthy of our attention. First of all, the width of the main road even narrower than the roads. Secondly, only at the end of the walk the visitors will see the construction of the main destinations. And on the way to the destination, vision is obscured. Of course, in our new design, these two issues would be better to avoid. There is a place in the Dorsoduro area is worthy of our study and reference, which is Reclamation Road. The increased width of the road, planting trees in the middle of the road in order to better build a small green belt, will be split among.

In our project Castello, Sant’Elena and S. Pietro are connected with the new bridges, the formation of new tour routes facilitates tourists and local residents. Along the both sides of the island, the commercial or public buildings are the major building type, which provide services and facilities for both local residents and international visitor, while the internal area is residential.
“Building a Lagoon Life” investigated how the Sant’Elena site could be developed to strengthen its place in the local community, in relation to adjacent islands, to Venice as a city and to the greater context of the lagoon. By building connections at these different scales of the city, our scheme aims to make a positive contribution to Life on the Lagoon.

An Ecological Centre is proposed to address the health and sustainability of the Venice Lagoon. Accommodating research laboratories, workshop facilities and a library, the Ecological Centre will be the point of information for the Lagoon’s sustainability, and a point of departure for scientific and tourist excursions on the Lagoon.

The location of the Ecological Centre, on the southeast end of the city, will mirror the location the Mose Administration and Maintenance site to the Northeast at Arsenale (Mose is constructing the water barriers to the lagoon entrances to control future flooding of the lagoon and city). These two institutions will be linked via a pedestrian route that passes through our Sant’Elena site.

Along this pedestrian link, a number of cultural and ecological sites are proposed, developing connections back to the existing community:

- new Theatres and outdoor public spaces provide venues that can be used for Biennale and local events;
- renovating the San Pietro disused cloister will house The Lagoon Life Centre, offering a venue for the San Pietro Feast (local festival), for temporary exhibitions, for local cultural events and for conference and seminar gatherings related to the lagoon;
- the new Sant’Elena Neighbourhood will provide housing, artists accommodation and studios, a commercial precinct including a market selling fish and fresh produce from the neighbouring island in the lagoon;
- renovations to the Italian Pavilion in the Biennale Giardini, to create a second entry that give all year access to a library and educational facilities, and also restaurant and cafe;
- new facilities for the Rowing club that include spaces for teaching, exhibitions and workshop areas.

All of these elements, including our development site, will give this part of Venice a unique focus and a sense of place and at the same time contribute to the greater arena of Venice City and its lagoon.
Analisi città / Insulae

Cannaregio

Santa Croce

San Polo

Dorsoduro

Castello
Analisi progetti contemporanei

Gino Valle

Biennale Giardini

Cino Zucchi

Alvaro Siza - Campo di Marte

Biennale Giardini
The Gateway Project
Alberto Cumerlato,
Nick Jonnudsson, Simone Peruzzo,
Piergiovanni Scardellato,
Wei (Vivi) Zhang

The project site in the Island of Sant’Elena was an old boat industrial site, which carry out job of boat manufacture and repair. This site has a large area of green space and number of industrial buildings. Around this site, there are three important churches, which create a nice view to surrounding insulas. To be transformed and prepared for a new residential development, this site was lack of public facilities, open space, public transportation and connection with other insulas.
The north-eastern corner area of Sant’Elena has a number of existing formal uses which at present restrict access and permeability as well as limits opportunities for active uses to the remaining part of the site.
Our group design focus on four key words, which are spacial continuity, interaction of transitional space, leading movements and view direction. This design guidance emphasizes the visual connection with the space.
As this area will became the new gateway of the town of Venice, new images and modern solutions to mobility and of the built environment will be the main characteristics of this new entrance to the town.
New activity generators will draw visitors and locals alike through the streets of Sant’Elena, experiencing a fusion of traditional Venetian style within modern design.
In addition to the housing it creates a new anchor development with a gateway hotel to welcome visitors and new university campus.
These anchors are supported by infusing new active uses through residential areas and the redevelopment of the area close to the sports stadium and the existing marina.
The main key ideas of the urban project are to design a modern eastern gateway from the Venice airport as transition into the traditional city and to use modern structure to permit permeable and pedestrian friendly spaces.
Self-sufficient Fish
Claudio Corubolo, Dora Narvara, Jingya (Summer) Ren, Tiziano Rumori, Krisada Sungkram

The site is important in Venice. The strength of this site is:
1. it is the first image for people when they enter into the lagoon from the sea;
2. it close to Lido, Certosa, Murano and Burano;
3. the surroundings have deep social, cultural and historical urban environment;
4. it has potential to develop social housing for the Venetian people.

The main objective of this design is:
1. reverse the urban structure in San Elena;
2. enhance the connection between San Elena and surroundings;
3. provide services and facilities to local community. That is in order to bring population into Sant'Elena and make a new kind of neighborhood and urban life which can attract people to this site.

This design will make the island as a self-sufficient island through using hydro energy to provide electricity, self-cleaning waste water, and roof farm which designed as a garden to provide food. This design will also bring in creating industry into the site. The future of the 21st century is the creative industry. Venetian must instigate changes to bring back the creative class to help implement changes to the new quality of life in Venice. We proposed some function in the site such as gallery, artist studios and sculpture garden as to keep the memory of the recent boat repair site. The site also needs to have a landmark. We proposed new landmark which is three twist towers. The number of the towers is from the three statues in the Piazza San Marco, one of the statues is in the water now. The shape of the buildings can reduce the stress of the prevailing sea wind. This design also brings water into site and enhances the connection between water and the people through make 2 belt areas with the entertainment function stretch into the water area which is used as boat parking. The design considered the recent road system of surroundings, and proposed two bridges and waterbus stop in order to enhance the connection between the site and surroundings.

The main programs in the site are: residential, affordable housing 30%, social infrastructure, anchor shops, library, cinemas, sport complex, market Dry & Wet, campo, green open space, boat parking, boat repair, mixed use development, restaurant & cafes, university branch, bars, hotels and artist studios. The FSR of the three towers is 3:1 and the estimate population density is 3857 person.

Site programming
1. residential
2. affordable housing
3. social infrastructure
4. amenities
5. anchor shops
6. library
7. cinemas
8. sports complex
9. market dry & wet
10. campo
11. green open space
12. boat parking storage
13. boat repair
14. mixed use development
15. restaurants and cafes
16. university branch
17. bars
18. hotel

Swot Analysis
Strength
1. gateway to Venice
2. the tail of the fish is the starting point
3. close proxim to Lido, Certosa, Murano, Burano
4. deep social, cultural & historical urban environment

Weakness
1. not much inhabitant
2. no service for local community
3. isolated
4. insufficient social infrastructure

Opportunity
1. connecting the discontinuity
2. creating a visual Landmark
3. revising the urban behaviour pattern
4. providing services to the local community
5. creating a self sufficient fish

Threat
1. tourist chaos
2. rising water level
3. tsunami
4. climate change
5. globalisation
New Gateway of Venice: Welcome to Modern Venice
Alberto Brunello, Mathew Egan, Davide Fuser, Massimo Piccoli, Yueshan (Rita) Tao

The project wants to recreate the historic place of arrival to Venice within a modern context. The design of a modern eastern gateway works as transition from the airport of Venice into the traditional city. A new high-speed boat will connect Marco Polo Airport to Sant’Elena bringing the visitors through the new “gates” of Venice to the Campo della Modernità. Visitors will arrive within a modern city that presents the language of Venice before transitioning into the old city. Tourist accommodation, retail and restaurants as well as residential development are planned for the area.

Additionally, as the area is close to the internationally acclaimed site of the Giardini, the place for the Biennale of Art and Architecture, this project includes the proposal for the extension of the Biennale area towards Sant’Elena with artists in residence studios developing continuous open spaces as green loops. The precedent studies demonstrated a number of elements that have been taken into the proposal. From the case study of Campo San Polo, what can be learned includes: movement versus activity through the use of Sotto Portico to move people through buildings and how the design of the ground floor dictates the use. Modern structures permit permeable and pedestrian friendly spaces and at the same time, by recreating a series of traditional sottoportici as reminiscence of the old Venice, a sense of exploration and discovery is found. Sant’Elena provides the opportunity to further the debate over the modern nature of Venice. Our proposal is to recreate the historic place of arrival to Venice within a modern context.

The main key ideas of the project are:
1. To recreate the historic place of arrival to Venice with a modern context.
2. Extension of the Biennale area with artists in residence studios to form continuous open spaces as a green loop.
3. To recreate the sense of exploration and discovery that is found within old Venice by the use of a series of sottoportici.
A liveable Neighborhood
Nicolò Agnolon, Enrico Marzaro, Lizen (Stacy) Shen, Fan (Phoebe) Yang, Minjie Zhang

The selected project site is a boat repair factory for Actv, which is now facing a challenge of redevelopment. Such former industrial site always contains cultural significance to the future generation. In regards to the characteristic of surrounding neighborhood, the simplicity and impermeability of the function of land is one of the main features, which leads to many issues on both cultural and social aspects. Apart from that, Flooding is a common issue that puzzles the whole Venice. Therefore, it is important that a more livable community with multi functional facilities needs to be created, with an integration of the site’s former industrial narrative as well as the modern life experience.

How to create a more livable community in regards to environmental, cultural and social sustainability? A liveable neighborhood integrates all features of compact, mixed-uses, diverse, healthy, green, accessible as well as sustainable, and intend to create a better living environment.

The scheme is introduced with aims of:
1. To provide for an urban structure of walkable neighborhoods clustering to form town of compatible mixed uses for easy access to employment, retail and community facilities
2. To foster a sense of community and strong local identity and sense of place in neighborhoods and towns
3. To facilitate mixed-use urban development which provides for a wide range of living, employment and leisure opportunities.
4. To provide for a more integrated approach to the design of open space and urban water management

In terms of the design strategy, this scheme is inspired from both Venice’s typical spatial arrangement, and contemporary building types of ex-Saffa Development, San Giobbe, which was designed by Vittorio Gregotti in 1981. They intended to combine both characters into the proposed design. At last, the scheme is generated with the process of the following:
1. Define main Axis: by mapping out all the public works and main street connection
2. Building pattern Testing: by re-arranging Gregotti’s building typologies into the site with considerations of Venice’s typical spatial pattern
3. Define street pattern: by overly the outcome from both 1 & 2
4. Improve spatial quality: by creating a series of small nodes along the street to enhance to spatial experience
Re-shaping Venice workshop

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