

## From Renaissance architecture to XXI century Sustainable perspectives

Scientific management: **LABO.R.A.**

### course A \_ Renaissance architecture and restoring strategies

[LABORatory of Architectural Restoration]

The course gives a synthetic framework of the Renaissance innovations, including art, architecture and cultural changes. The Renaissance in Italy went from the XIVth of the XVth century, until the climax in the first half of the XVIth century, when all around Europe the government of the Pope gave a strong impact to the artistic production from architecture to the urban design, from art to literature, with many masters as Palladio, Michelangelo and Raffaello.

Ferrara has been one of the capitals of the papacy that, together with the dukedom, gave a great support to massive examples of building innovations and elegant decorations. To safeguard and maintain this important building heritage specific conservation policies and methods have been developed, testing innovative materials and techniques that will be presented during the course with lessons and guided visit on site, in private and public buildings.

	July	time	
18	Sunday	before 15:00	Overseas arrivals at Bologna airport and meeting point at the hotel
	FERRARA	15:00_18:00	Welcome: practical matters. Short guided tour of the FERRARA city centre. FERRARA accommodation (3 stars hotel, b&b)
19	Monday	9.30	Welcome by the Faculty chief staff and short presentation of teachers & tutors.
	FERRARA	10:30_12:30	<b>LESSON A1_The Renaissance architecture in Italy</b> Short presentation of the Renaissance architecture in Italy, analysing social and cultural aspects together with the development of the "style" concept in art and architecture.
		12:30_14:00	<i>free time for lunch</i>
		14:00_16:00	<b>LESSON A2_The analysis of the Renaissance heritage: building and urban evolution, management of restoring strategies</b> Presentation of the most important evolutions of the Renaissance building heritage with an urban overview and analysing some crucial examples (i.e. Urbino, Ferrara and many others). Short introduction on restoring building strategies: urban planning, management and refurbishment of the existing estate in our XXI century cities.
		16.30_18:30	<b>GUIDED TOUR of the city centre (including bike rental)</b> In 1995 UNESCO classified Ferrara's historic centre as a world heritage list, defining it as "...a fine example of a town planned in the Renaissance that has managed to retain the integrity of its historic centre". Ferrara is one of the capitals of the Renaissance when the Court of the House of Este leaving in its wake indelible vestiges such as inestimable gardens make it one of the greenest cities in Europe, while cinema, literature, modern art exhibitions and the university are what keep it intensely alive as its inhabitants daily go about it on their bikes.
			<a href="http://www.artecultura.fe.it/index.phtml?id=312">http://www.artecultura.fe.it/index.phtml?id=312</a>
			FERRARA accommodation (3 stars hotel, b&b)
20	Tuesday	09:00_11:00	<b>LESSON A3_The ancient building way: a thesaurus of traditional techniques</b> Analysis of the main building materials and systems as used in the building heritage, in particular about structural issues (i.e. brickworks and wood) and finishing (i.e. plaster, paintings, flooring).
	FERRARA	11:00_13:00	<b>LESSON A4_The ancient building way: experiences of building restoration</b> Presentation of the most important restoring strategies, to safeguard the building architecture, to improve the ancient building systems and materials and to make feasible a modern use of the building itself.
		13:00_14:30	<i>free time for lunch</i>
		14:30_16:30	<b>GUIDED TOUR of an example of a restoring building yard: Palazzo Tassoni</b> Selection of restoring works, analysed on site, as applied in Palazzo Tassoni, one of the most important example of renaissance architecture of its age.



## From Renaissance architecture to XXI century Sustainable perspectives

16.30\_18:30 **GUIDED TOUR of the Schifanoia Palace (including ticket)**



The palace, former 'Delizia' (palace for recreation) belonging to the Este family, was built in a green area near the Po river, to the wishes of the marquis Alberto V in 1385. It was extended by Duke Borso in the years 1465-1467, adding a new storey. Francesco del Cossa designed the elegant marble portal, which once had the Estense coat of arms above it and which is still the main focal element of the external façade. The visit begins in the oldest wing (14th century) of the palace, with the exhibition of neoclassical sculptures and several paintings. There is a the small medal collection, with works by artists such Pisanello and a collection of ivory items is of great value. Of great rarity is the magnificent 15th century alabaster Polyptych, made in a Nottingham workshop and given to the Este family by the King of England. The collection of bronzes includes the small *Night Hunter* by Giambologna (1529-1608) and the 17th century *Saint George and the Dragon*, in gilded bronze on a marble base. Leaving the 14th century wing, a short stairway leads to the *Hall of the Months*, which conserves one of the most important 15th-century cycles of frescoes in Italy. It is the collective work of different Ferrarese painters from the school of Cosmè Tura, among whom were Francesco del Cossa and Ercole de' Roberti. In the adjacent *Hall of the Virtues*, a sumptuous gold-painted panelled ceiling can be admired, realised by Domenico di Paris in the 15th century, with decorative motifs of rare beauty, among which are the duke's badges.

FERRARA accommodation (3 stars hotel, b&b)

21	Wednesday FERRARA	09:00_11:00	<b>LESSON A05_The Renaissance villas</b>
		11:00_13:00	<b>LESSON A06_Palladio as master of is age</b>
		13:00_16:00	<i>free time for lunch</i>
		16:00_18:00	<b>GUIDED TOUR of a restoring techniques: building works in the Ferrara city centre</b>
			Selection of restoring works applied to existing case studies, analysed on site.
			FERRARA accommodation (3 stars hotel, b&b)

<http://www.cisapalladio.org/veneto/index.php?lingua=e&>

22	Thursday PADOVA	09:30_10:30	travel from Ferrara to Padova (direct train)
		10:30_14:30	<i>free time for tourism ad lunch</i>
		14:30_17:30	<b>GUIDED TOUR of the Renaissance architecture in Padova</b>



Ancient University centre, Padova can boast of several evidences of a glorious cultural and artistic past. Nowadays it is an important economical centre and the third town of the Veneto regarding population, and it displays the most attractive features of the Art and History tourism, being in a Medieval atmosphere everybody can perceive on the squares and the paths of the historical centre. Erected on the western side of the Venetian lagoon by the river Brenta, it was probably founded in 1184 before Christ, according to the legend, by the mythical Trojan hero Antenore. During the Medieval age Padova succeeded in acquiring glamour and wealth so as to become one of the main centres of the Mark of Verona and Treviso, just thanks to its economically strategic position, being just in the centre of a communication junction between Venice, Este and Altino which converged to its river port.

<http://www.turismopadova.it/Itinerari/Padovaitinerari/en>

<http://www.venezia.net/venice/padova.html>

<http://en.wikipedia.org/wiki/Padua>

<http://www.turismopadova.it/Itinerari/LeTermeEuganee/view>

PADOVA accommodation (3 stars hotel, b&b)

## From Renaissance architecture to XXI century Sustainable perspectives

23 Friday

08:30\_19:00 **GUIDED TOUR by boat of a selection of villas** (including boat rental costs)**[Villa Pisani a Strà, Villa Barchessa Valmarana, Villa Foscari]**

The 17th of April 1345 the Great Council of the Serenissima Republic of Venice abrogated a law which had prohibited the citizens of Venice from having properties on the mainland and some business of Venetian Noblemen moved to the mainland and along the banks of the Brenta Canal. The chance of widening profits and straightening the agricultural activities on the mainland led the Noblemen to ask themselves how they could control closely the production. The country villas have been built according to these new needs, joining the house of the owner and the wings, designed for services. These Villas follows many kind of "models": the Farm - for whom had in agriculture a new form of richness; the Temple, meeting point for artists; the Palace, used for important public moments of the family and place of great feasts and banquets; even sumptuous residences, works of famous intellectuals and architects, decorated and frescoed by great painters in order to testify a season of splendours. Great architects (Palladio, Scamozzi, Frigimelica) designed summer residences for the noblemen; the "Villa Veneta" originated the trend of the "Villeggiatura" (vacation) with about 2000 palaces built in Veneto between the XVth and XVI centuries and which lasted for the following two, till the fall of the glorious Republic of Venice in 1797.

The tour includes the visit of: Villa Pisani in Strà, painted by the greatest artists of the XVIIIth century (Guarana, Rosalba Carriera and Francesco Simonini and Giambattista Tiepolo); Villa Barchessa Valmarana, with its wide portico, and Villa Foscari (called La Malcontenta), one of the masterpieces of Andrea Palladio, an example of Temple Villa with a great pronaos mirrored on the water of the canal.

The navigation starts in Padua and stops in Venice, in front of the magic scenario of St. Mark's Square.

<http://www.battellidelbrenta.it/home.php?setlan=en>

PADOVA

VENICE

19.00 arrival in Venice by boat

VENICE accommodation (3 stars hotel, b&amp;b)

24 Saturday

**VISITING VENICE** free time

[http://www.venicecharms.com/design\\_in\\_venice.html](http://www.venicecharms.com/design_in_venice.html)

[http://www.veniceworld.com/venice\\_guide.htm](http://www.veniceworld.com/venice_guide.htm)

<http://www.turismovenezia.it/eng/default.asp?lingua=en>

[http://www.veniceworld.com/venice\\_guide\\_itineraries\\_murano\\_burano\\_torcello.htm](http://www.veniceworld.com/venice_guide_itineraries_murano_burano_torcello.htm)

<http://www.venezia.net/venice/>

VENICE

18:00\_19:30 travel from Venice to Ferrara (direct train)

FERRARA accommodation (3 stars hotel, b&amp;b)

25 Sunday

**VISITING FLORENCE** free time

09:30\_10:30 travel from Ferrara to Florence (FA fast train)

FLORENCE

<http://www.learner.org/interactives/renaissance/florence.html>

20:30\_21:30 travel from Florence to Ferrara (FA fast train)

FERRARA accommodation (3 stars hotel, b&amp;b)

Please note that the first lesson of the second week has been scheduled on the late morning to give the chance of leaving Florence on Monday morning instead of Sunday (hotel in Florence isn't included).

## From Renaissance architecture to XXI century Sustainable perspectives



### course B Approach to a sustainable architecture

Scientific management: a>e  
[Research centre Architecture & Energy]

The sustainable approach is now firmly joined with architecture, all over the world; Italy has a growing experience of building design using an energy efficient approach, starting many years ago with a more "European" approach coming from Northern Countries, to reach now a more "Mediterranean" strategy, including both Summer and Winter evaluation in the building design. The research on sustainable architecture in Italy is following to key ways: new performances for traditional materials and components (mainly applied to the refurbishment of buildings in the city centres) and the promotion of renewable energies through the upgrading of building envelopes and systems (to plan, improve and design new buildings).

Italy is developing a specific background on the sustainable refurbishment of the building heritage, merging its experience on restoration and conservation with the need of more efficient services and materials. Working primarily to maintain and manage their cultural real estate Italian architects need to properly deal with traditional as innovative technologies, testing with care the compatibility between energy requirements and historical matters.

The course will give an outlook of the state of the art in Europe, with many national and international examples, showing all issues linked with energy efficiency and the new trends on sustainable architecture, that should be the core of the environmental approach adopted to plan the Expo 2015, in Milan.

	July	time	
26	Monday	09:30_12:30	<b>Bike tour from city walls to the Po river park (included bike rental)</b>
			 <p>Ferrara walls are a red curtain of brick that encircles the historic centre almost without interruption for nine kilometres, constituting one of the oldest and most impressive defensive systems of the Middle Ages and the Renaissance and make use of all the techniques of defence used in the 1400s and 1500s: city gates, bastions, large towers, gun slots and embrasures. Time has transformed these walls into a place for meeting friends, practicing sport and recreation, with paths for cycling and walking. The city centre is full of public parks and a large green area, the ancient hunting land of the Este family, that goes from the city to the Po river, on the north side of the city walls. The game preserve is now a natural park with sports facilities, including a 18 holes golf club.</p>  <p>Ferrara is a town of water intimately linked to its river, the Po, that defined the curves of its Middle Age streets and alleys lead to the restoration its modern tourist port of San Paolo and fed the canals that surround it and stretch as far as the Adriatic Sea and the Po Delta Park. The White Island oasis It is one of the oldest islands in the river Po, in existence since the 15-16th century. Today here live no less than 92 plant species, 76 bird species and many species of mammals, insects, amphibians and reptiles. Ferrara is part of the longest cycling route in Italy, that runs along the banks of the river Po from Stellata di Bondeno to Gorino. Ferrara is member of "Eurovelo", a network of 12 cycling routes that stretch across Europe, and is the central tract of route n.8 that runs from Athens to Cadice, officially opened on 2001.</p> <p style="text-align: right;"><a href="http://www.ferraterraacqua.it/sito?lang=EN">http://www.ferraterraacqua.it/sito?lang=EN</a> <a href="http://www.lipuferrara.it/">http://www.lipuferrara.it/</a></p>
		12:30_14:00	<i>free time for lunch</i>
FERRARA		14:00_18:00	<b>LESSON B01_European trends for building sustainability: issues and examples</b>
			<p>Architectural innovations to improve the comfort, to save energy and to preserve the environment (low carbon buildings, reuse and control of materials, landscape impact assessment, etc).</p> <p>A survey on the European laws with concern to building energy efficiency.</p> <p>Some major examples illustrating energy retrofit and new buildings construction throughout an assessment of the achieved environmental benefits.</p> <p>FERRARA accommodation (3 stars hotel, b&amp;b)</p>
27	Tuesday	09:00_13:00	<b>LESSON B02_Building energy efficiency though passive strategies: issues and examples</b>
FERRARA			<p>Orientation, form, massive design envelope, air permeability, high insulation, solar screens, natural &amp; mechanical ventilation, colours and patterns, use of filters and greenhouses, solar passive gain.</p> <p>Major issues concerning natural and mechanical cooling techniques.</p> <p>Smart solutions pursuing the natural insulation properties and the thermal mass of the building envelope.</p>
		13:00_16:00	<i>free time for lunch</i>

## From Renaissance architecture to XXI century Sustainable perspectives

16:00\_18:00 **GUIDED TOUR of National Archaeological Museum & Costabili Palace** (including ticket)



This large palace has been built from 1502 for Antonio Costabili, the Ferrara's ambassador at the court of Ludovico il Moro, the Duke of Milan. The architect was the court architect, Biagio Rossetti, who accomplished in it one of his masterpieces. The building stands around the courtyard of honour, only completed on two sides and adorned with two open galleries in marble. The legend arose that the palace had been built for the Duke Ludovico il Moro, widower of Beatrice d'Este, and had then remained unfinished when he fell from power and fled from Milan. The palace includes some 16th-century ceilings frescoed by Garofalo and a neo-Renaissance garden.



The **Museo Archeologico Nazionale**, housed on the first floor of the Palace of Ludovico il Moro, exhibits the findings of the Etruscan city of Spina, which flourished from the 6th to the 3rd century B.C. and survived until the first centuries A.D. After it was submerged by the water of the Po Delta, it became just a legendary name for centuries, until, at the beginning of the 20th century, the site of the built-up area was identified. The museum conserves various types of objects, many of them of excellent artistic quality. The abundance of sets of objects for symposium of Athenian origin bears witness to the city's close cultural links with Greece. In the port of Spina, an important trading centre, goods from all over the known world, from northern Europe to the coast of Africa, used to arrive and a considerable wealth spread among its inhabitants.

FERRARA accommodation (3 stars hotel, b&b)

28 Wednesday 08:30:10:00 Travel from Ferrara to Reggio Emilia (private bus)

R. EMILIA 10:00\_13:00 **GUIDED TOUR of new innovative sustainable buildings in Emilia Romagna: part 1**



Tour of energy efficient building designed for the Mediterranean climate\*:  
 "Carbon Zero" Office building in Reggio Emilia [design: Laboratorio di Architettura]  
 "Class A" energy efficiency for a multifamily housing estate in Reggio Emilia [design: Laboratorio di Architettura]

\* The list of project could be changed according to the availability of new designs now on a building stage.

13:00\_15:00 *free time for lunch*

15:00\_18:30 **GUIDED TOUR of new innovative sustainable buildings in Emilia Romagna: part 2**



Tour of energy efficient building designed for the Mediterranean climate\*:  
 "Carbon Zero" refurbishment of a traditional building in the city centre of Reggio Emilia [design: Laboratorio di Architettura]  
 "Class A" energy efficiency for a public library in Albinea [design: Ufficio Progetti]

\* The list of project could be changed according to the availability of new designs now on a building stage.

18:30\_20:00 Travel from Reggio Emilia to Ferrara (private bus)

Ferrara accommodation (3 stars hotel, b&b)

29 Thursday 09:30\_12:30 **LESSON B03\_Urban design: planning for sustainable communities**

The city energy grids and their effect on the sustainable development policies.  
 Reuse of the soil, collective and participated design, urban safety, reuse of water, noise control, landscaping, flexible and adaptable buildings. Analysis of the main issues and EU examples.

14:40\_16:45 travel from Milan to Ferrara (FR fast train)

MILAN

*free time in Milan*

[http://www.visitamilano.it/turismo\\_en/index.html](http://www.visitamilano.it/turismo_en/index.html)

Milan accommodation (3 stars hotel, b&b)

## From Renaissance architecture to XXI century Sustainable perspectives

30	Friday	09:00_13:00	<b>GUIDED TOUR of new innovative sustainable buildings waiting for Expo 2015: Part 1*</b>
	MILAN		<p>* Dues to the ongoing program of Expo2015 and to the fast development of large building estates, the final list of project will be defined together with the Architect Institute of Milan and with the locale Urban Centre.</p> <p>“Feeding the planet, energy for life” the issues of sustainable development will be the key world to analyse new trends for large scaled designs in an International perspective.</p> <p>Short presentation of some innovative buildings designed to improve the energy efficiency, the use of sustainable materials and a creative use and management external envelope and services.</p>
			<p>free time for lunch</p>
		15:00_18:00	<b>GUIDED TOUR of new innovative sustainable buildings waiting for Expo 2015: Part 2*</b>
			<p><a href="http://www.expo2015.org/indexe.htm">http://www.expo2015.org/indexe.htm</a>  <a href="http://www.archiportale.com/Upload/fileblog/4395_02.pdf?271282">www.archiportale.com/Upload/fileblog/4395_02.pdf?271282</a></p>

### END OF THE COURSE

SUGGESTED WEEKEND TOURS from Milan (not included)			
<b>FLORENCE</b>	18:15_20:00	travel from Milan to Florence (FR fast train) 52 euro free time in Florence (suggested short tours program available on request) Florence suggested accommodation (3 stars hotel), single room about 80 euro	
<b>TURIN</b>	18:15_20:10	travel from Milan to Turin (direct train) 10 euro free time in Turin (suggested short tours program available on request) Turin suggested accommodation (3 stars hotel), single room about 70 euro	<a href="http://www.comune.torino.it/torinoplus/english/index.html">http://www.comune.torino.it/torinoplus/english/index.html</a>
<b>ROME</b>	18:15_21:15	travel from Milan to Rome (FR fast train) 90 euro free time in Rome (suggested short tours program available on request) Rome suggested accommodation (3 stars hotel), single room about 80 euro	<a href="http://en.turismoroma.it/">http://en.turismoroma.it/</a>
<b>CINQUE TERRE</b>	18:00_21:17 21:23_21:31	travel from Milan to La Spezia (IC train) 22 euro travel from La Spezia to Riomaggiore (regional train) 1,5 euro free time in Riomaggiore, Manarola, Corniglia, Vernazza, Monterosso	<a href="http://www.cinqueterre.com">http://www.cinqueterre.com</a>
<b>MALPENSA airport</b>	18:00_18:36	travel from Milan to Malpensa international airport (direct train)	<a href="http://www.sea-aeroportmilano.it/en/">http://www.sea-aeroportmilano.it/en/</a>