ANNOUNCEMENT
14th edition

Master sponsored by the Consiglio Nazionale degli Architetti Pianificatori Paesaggisti e Conservatori, releases 15 professional credits

The program of the Master courses by Quasar Design University started in 1988, among the first ones in Italy and eleven years before the university reform that with the Law 509 of 1999 established University Masters. Since then the formula didn’t change even if the programs are constantly upgraded in every new edition. Strengthened by an experience of more than twenty years, today the Quasar starts courses which have a structure, duration, scientific level and professionalizing efficiency in compliance with what’s established by the MIUR. The distinctive character of Quasar Masters is the attention in keeping a particular balance between theoretic-disciplinary basics that define their contents and the tight cohesion with the practice of the professions to which they give rise.
SUMMARY

Duration: 1 year – from the 22nd March 2018 to the 22nd February 2019

Deadline to apply: 2nd February 2018

Organizing institution: Quasar Design University – www.quasar.university - Tel. +39 06 8557078

Direction of the Master: Benedetto Todaro

Council of the course:
Cecilia Anselmi, Carolina Brook, Riccardo De Antonis, Francesco De Lorenzo, Nunziastella Di Leo, Paolo Lattanzio, Massimiliano Forlani, Gina Oliva, Benedetto Todaro.

Tutor di Corso: Fabiana Carboni

Scholarships:
A scholarship to every 10 participants, that covers the 50% of the participation fee of the Master.

Contacts: info@quasar.university
EDUCATIONAL TARGETS

Following its tradition, Quasar Design University proposes educational programs that join efficient professionalizing experiences with the opportunity to acquire strong theoretical and methodical basics. In this way the student of the Master will be able to express a considerable operational versatility and autonomy, optimizing his professional chances.

For this purpose, during the Master students will deal with subjects that, proceeding step by step toward specialisms, they frame the complexity of the theme inside clear reference systems to help the fast acquisition of familiarity with applications directed step by step.

The target of the AVR Master is to make its students available to use in the most complete and efficient way potentialities offered by the latest releases of the most powerful software and rendering engines available on the market, to create static views and video animations of any architectural project inserting it in its environmental context with the results of a perfect photorealism.

Having three-dimensional models we could be tempted to postpone the choice of the best points of view on which to build the image to the last moment comparing hundreds of different ones. To this "blind" modality based just on the power of the automatic calculation (anyway always available), the program wants to add an anticipated ability of vision and programming of the communicative tools built through the critical study of the techniques used by big photographers and famous designers (from Ezra Stoller and Helmuth Jacoby till the more known contemporary photographers, directors and designers). In fact we think that what makes the difference in the building of the computer images from now on will be a good technique, but most of all the culture and sensibility in the composition and in the choice of the character and of the communicative atmosphere that we want to create with images and videos.

We give a particular attention and interest to the integration of the various techniques and of the methods to handle the entire productive cycle of static images and video, from the style and communicative choices till the optimization of the balance between quality and time of elaboration, to reach the immersive effect that we want with commensurate times and tools, also to give useful parameters of opportunities for the professional activity made on our own or to help other structures.
Teachers of the Master in Virtual Architecture are high-profile professionals in their operational fields; people for a long time involved in partnerships and collaborations with important environments of production and research, and qualified since many years in the field of education.

Lessons and workshops of the Masters will be organized in a progressive path of frontal education carefully organized that will lead the student during the steps of visualization of projects of increasing complexity.

Through these projects they will meet and solve matters recurring in the advanced and animated three-dimensional representation until the development of the final thesis.

This educational nucleus will be integrated in a significant way by a consistent number of hours dedicated to the Self-studying and to the On-line tutoring by teachers. In the Masters in Virtual Architecture students will deal with all the sensible themes about the 3D visualization through methods completely consolidated in the most relevant productive environments of the field.

Students will gradually come into contact with the most fruitful techniques of geometrical elaboration, starting from mesh modelling approaches, solids and surfaces. They will analyze matters and methods about the management and exchange of data (I/O) between the used software tools, which are constantly examined through a common line of interoperability.

A particular attention will be given to the study of the behaviours of light and surfaces through the comparative analysis between the most powerful and spread Rendering Systems, with the aim to reach to control the image until we get the photorealism even thanks to a relevant in-depth analysis path of the editing modalities of the 2D image.

Students will analyze applicative specifics dedicated to the implementation of vegetation of the territory, pushing themselves until the generation of the procedural ecosystem. Of big importance will be the knowledge of digital and analogue output devices.

Students will analyze techniques useful for the fusion of virtual contents with images taken from the real world (Camera Tracking, Video Compositing).

At the same time with all the necessary technical knowledge, students will improve their high-profile critical/analytical/decisional abilities through analyzed interventions about the Architecture photography, the grammar of the direction, the pre-visualization and the Story-telling.
These two educational approached, one technical and the other critical/analytical one will get integrated in a targeted manner during all the Master, reaching to completely join in occasion of the creation of a “shared” project chosen by teachers and of a thesis project chosen by each student with the approval of teachers.

Companies and studios active in the field of the visualization of the architectural project will participate at the Master in Virtual Architecture bringing their know-how of production and they will host students during stages at the end of the Master. The stage will be an important occasion of analysis and growth of the abilities of each student inside productive realities constantly working in their referring fields.

SUBJECT MATTER

- 3D CAD MODELING:
  - WIRE FRAME, MESH, SOLINDS AND SURFACES
- MANAGEMENT OF THE 3D SCENE_1:
  - POLIMESH MODELING AND FOR DIVIDING SURFACES
  - 3D ANIMATION
  - BASIC SURFACE MATERIALS
- ELABORATION OF THE IMAGE 1

ADVANCED MODULE

- BIM
  - PARAMETRIC MODELLING

- MANAGEMENT OF THE 3D SCENE_2:
  - EXTERIOR AND INTERIOR LIGHTING, STUDIO SETUP
  - ADVANCED SURFACE MATERIALS
  - CREATION OF 3D MODELS STARTING FROM A PHOTOGRAMMETRIC RELIEF
These two educational approaches, one technical and the other critical/analytical, will be integrated in a targeted manner during all Master stages, reaching to completely join in the creation of a “shared” project chosen by teachers and of a thesis project chosen by each student with the approval of teachers.

Companies and studios active in the field of the visualization of the architectural project will participate in the Master in Virtual Architecture, bringing their know-how of production, and they will host students during stages at the end of the Master. The stage will be an important occasion of analysis and growth of the abilities of each student within productive realities constantly working in their referring fields.

**SUBJECT MATTER**

**3D CAD MODELING:**
- Wire Frame, Mesh, Solids, and Surfaces
- Management of the 3D Scene
  - Polimesh Modeling and Dividing Surfaces
- 3D Animation
- Basic Surface Materials
- Elaboration of the Image 1

**ADVANCED MODULE**

- BIM
- Parametric Modeling
- Management of the 3D Scene
  - Exterior and Interior Lighting, Studio Setup
- Advanced Surface Materials
- Creation of 3D Models Starting from a Photogrammetric Relief

**FIRST LEVEL ACADEMIC MASTER IN VIRTUAL ARCHITECTURE**

<table>
<thead>
<tr>
<th>CAMP DISCIPLINARI</th>
<th>ATC (*)</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>3D Cad Modelling</td>
<td>3</td>
<td>30</td>
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<tr>
<td>3D Modelling and Visualization</td>
<td>9</td>
<td>90</td>
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<tr>
<td>Critique</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>Parametric Modelling</td>
<td>5</td>
<td>50</td>
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<tr>
<td>Elaboration of the Image 2</td>
<td>6</td>
<td>60</td>
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<tr>
<td>Environment Design</td>
<td>4</td>
<td>40</td>
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<tr>
<td>Advanced Visualization</td>
<td>6</td>
<td>60</td>
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<tr>
<td>Elaboration of the Image 1 and Video Editing</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>Compositing, Camera Tracking and Colour Correction</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>Technical Photography</td>
<td>3</td>
<td>30</td>
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<tr>
<td>Projects Review</td>
<td>2</td>
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<tr>
<td>Final Test</td>
<td>5</td>
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<tr>
<td>Stage</td>
<td>10</td>
<td>450</td>
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<tr>
<td>Self-studying</td>
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<td>600</td>
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<td><strong>TOTAL</strong></td>
<td>60</td>
<td>1500</td>
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T.E.O. = Type of educational offer

1 Theoretic lessons – 1 ATC = 6h
2 Theoretic-practical activities – 1 ATC = 10h
BASIC MODULE
The first module of the Master will be focused on the direct analysis and experimentation of the most solid and fruitful techniques of modelling and of management of 3D. Following, the student will be able to give shape to his own ideas using, from time to time, the more suitable elaboration modalities. They will also analyze visualization modalities, coordinates systems and 3D animation techniques. A particular attention will be given to the step of the data exchange between software. Students will analyze in depth modalities of digital representation by the study of standard light sources and of the first setup of studio illumination. After, students will analyze matters about the elaboration of basic surface materials and the management of the mapping coordinates of models. In this phase students will study the basic tools of the Adobe Photoshop software, with the purpose to guarantee to the students suitable tools for the generation/manipulation of textures useful for the simulation of materials and surfaces of the real world.

ADVANCED MODULE
*Advanced architectural visualization: tools for photorealism.*
During the advanced module of the Master, students will explore techniques of BIM technology modelling inside the Revit software. Students will work on the research of the photorealism and of the quality of the image, also thanks to the addition of the best software for 3D modelling and rendering: this is a couple that since many years is the real standard in many productive realities all around the world. The target will be reached through the careful analysis of elements such as composition, advanced illumination, accurate physical surface materials, photographic control on the camera (management of the exposition, depth of field, motion blur). Here students will use the most flexible and fruitful illumination techniques for the performance, developing systems and methods regulated on typical context of use: architectural outputs for externals and interiors, studio setup and still life. An integrated part of the module will be made by a substantial segment of analysis about the use of a software for post-production, and after that the student will be able to improve the image produced in the rendering phase. Furthermore, students analyze the management of the virtual camera, with practical examples aimed to prevent operational defects and abstract methods while using the tool. Part of the module is focused on important teachings about the critical analysis of photography in the architecture and about the grammar of the direction. These teachings have to give to the student the interpretative tools more suitable for an employment mature and stylistically aware about the tools of photo-realistic representation and of 3D animation.
In the learning path of the student, further tools of advanced representation will be integrated: the module deals with advanced systems of integration of 3D vegetation inside of virtual scenarios, the advanced Scattering of vegetation on surfaces and Spline, the parametric generation of specific arboreal essences, until the development of ecosystems and natural environments. Furthermore, students will work on advanced Camera Animation (virtual simulation of shots of the real world through Dolly, Crane, shoulder Camera, Steadicam), Camera Tracking, Compositing between virtual contents and real filming, Post-production and Colour Correction for the final definition of images, video mounting. After a period of training specifically dedicated to the practice of software, students will put them into practice in the development of the project. At the end of the module, and of the entire block of frontal education offered by the Master, a workshop will take place, dedicated to the revision of the thesis projects in elaboration made by the participants.

CURRICULAR STAGE

At the end of the previous modules, each student who regularly and profitably took part to the 80% of the frontal lessons will have the possibility to take part in a stage of 450 hours that lasts around 3 months inside companies and professional studios that work and produce in the trade since many years, to complete the educational path, through a direct application of the work made in the classroom. The selection priorities of the final destinations of the period of stage is decided considering the valuations that students received during the frontal lessons.

SELF-STUDYING AND ONLINE TUTORING

During the Master, the student can have a constant online assistance and exchange documents through e-mail with teachers and assistants. Each project will be constantly followed in each of its parts.
PARTNER COMPANIES

CNR-ITABC
Istituto per le Tecnologie Applicate ai Beni Culturali

Q-Agency – Roma

Studio TRANSIT Design

Studio Kami

Studio Leonori associati

Studio associato Elia-Giancotti

PRESENT ENGINEERING
Progettazione & Servizi Integrati

Sesto engineering

Studio Scape

Studio Sposato

Master patrocinato dal Consiglio Nazionale degli Architetti Pianificatori Paesaggisti e Conservatori, rilascia 15 Crediti Formativi Professionali.
CALENDAR

The Course, that lasts 1500 hours, provides for 450 hours of frontal education, 450 hours of stage and 600 hours of self-studying and online tutoring.

The frontal education and the online tutoring last one year, they start on the 22/03/2018 and end within the 22/02/2019.

The lessons in the classroom take place three times a week: Thursday, Friday night and Saturday morning. The specific Calendar with the hours of lessons will be available within the first lesson of the Course.

During the educational cycles workshops held by experts will take place about all the dealt subjects. At the end of the educational path a final exam will take place, which passing is a necessary requisite to achieve the academic Master’s degree.

The Quasar design University might modify the educational program, always respecting the hours and targets of the course, to guarantee a better efficiency of the experience, when new software are available, when testimonials and partners are set as an opportunity for students to make use of an added value.

FREQUENCY

To achieve the Certificate and to be able to have the final exam, the minimal obligatory frequency is of 80% of the hours (this percentage has to be calculated on the total of hours for each module of frontal lessons and workshops, and for the stage – to guarantee, through the continuity and the proper concentration, the efficiency of the experience). The subscription at the same time to other academic Masters or to other AFAM courses is not allowed.

MASTER’S DEGREE

The diplomas will be given, at the end of the educational path, to students who passed the final exam and who comply with the obligations of frequency and of the contract.
HEADQUARTERS AND EQUIPMENTS

Frontal lessons and workshops will take place at the headquarters of the QDU. Some interventions might take place in other places: the Quasar Design University specifies that it can distribute its students in a different headquarters or modify the place where the lessons take place once the sign ins are done, without to invalidate the correct and fruitful education. Each student will have a dedicated computer, equipped with specific software.

Stages will take place at the headquarters assigned by the chosen companies (dislocated in different areas, in Italy and abroad).

ACCESS

ACCESS REQUIREMENTS

The Master in Virtual Architecture is aimed to people who achieved a first level Academic diploma or a Degree or other title released abroad, recognized suitable by the current regulation, with design knowledge and basic abilities of the CAD software. A basic knowledge of the English language is required.

ACCESS MODALITIES

The Master in Virtual Architecture wants a minimal number of 7 participants. People interested have to send by ordinary mail to the address of the Quasar Design University or by e-mail at the address segreteria.amministrativa@quasar.university within the 2th February 2018;

- admission request filled in all its parts (the model is available in paper, if requested, and available on the website of the Quasar Design University, at the page dedicated to the AVR Master);
- the sign in paying of Euro 990,00 (net of VAT in law) after receiving communication of suitability from the Selection Board. The sign in down payment will be totally paid back only if the candidate doesn’t pass the admission interview.
TO THE ADMISSION REQUEST HAVE TO BE ATTACHED:

1. Curriculum vitae
2. Letter of motivation in which the applicant has to explain the reasons why he chose the educational path
3. A copy of an identification document
4. 1 coloured photo card format
5. A copy of the diploma
6. Eventual other achieved qualifications

FOR THE SELECTION INTERVIEWS:

It’s useful to present at the interview a portfolio of works and projects made (not necessarily relevant with the subjects of the Master). Furthermore, during the interview will be verified the level of knowledge of software that will be used during the Master and of the English language. The suitability of candidates will be judged considering the curricula sent, the quality of the works presented in the portfolio and to the result of the aptitude interview. In case of suitable candidates in a number that goes over the availability of the places, we will proceed with a selection following the order of arrival of the requests.

The qualifying selection will be held by the Selection Board, who will inform the results of the interviews within the 15th February 2018.

SIGN IN AND INSURANCES

The participation fee of 7,110,00 Euros (net of VAT in law) has to be paid following the subscribed modalities at the moment of the subscribing of the contract. The possibility to pay the sign in fee in rates is provided (for online information: segreteria.amministrativa@quasar.university).

The sign in fee INCLUDES the Insurances – Accidents (INAIL).
The lacking of confirmation in the specified times will be considered as a renounce and the next candidate in order of presentation of the request will take his place.
For the final exam a fee of 350,00 Euros has to be paid (net of VAT in law).
CONTRACT

The technical organization and the economical management of the Master are taken care of by the Quasar Progetto S.r.l. (company owner of the “Quasar Design University” brand).

The relationship between the student and Quasar Design University (registered trade mark of the Quasar Progetto S.r.l. – VAT 04095221000 – ROMA) will be regulated by a proper contract that has to be signed with Quasar Progetto S.r.l. at the pre sign-in and at the sign-in. A copy of the contract is visible at the office of the Quasar Design University, that works full time h 9 am – 9 pm from Monday to Friday and Saturday from 9 am to 3 pm, tel. +39 0685301487 fax 0685831148

PAYMENT MODALITIES:

- cash (up to € 2.999,99)
- credit card, bancomat
- check assigned to Quasar Progetto S.r.l.
- bank transfer assigned to Quasar Progetto srl – Deutsche Bank IT55E0310403203000000822088

AGREEMENTS AND KINDS OF PREFERENTIAL FINANCING ARE ACTIVE

For information about signing in, kinds of financing and scholarship: segreteria.amministrativa@quasar.university.
A scholarship is available in one of every ten participants, corresponding to the 50% of the sign in fee of the Master and it will be given at the end of the final exams by the Selecting Board and on its unquestionable judge.

People interested have to send their candidacy and the admission request to the Master, following the terms specified in the Announcement for the distribution of the Scholarship at the e-mail address segreteria.amministrativa@quasar.university sending the following documents:

- scholarship request, filled in all its parts, following the model downloadable from the website of the Quasar Design University, at the page dedicated to the Master in AVR.

- ISEE model

For the selection of the candidates to the Scholarship, we will consider the results of the work made during the Master and the final thesis. In case of equal merit, the priority will be given to the candidate with the lower income. For the selection of the candidates to the Scholarship, the publication of the rankings and for all the participation and assignation criterions, we refer to what we specified in the Scholarship Announcement for the year 2017–2018.

The scholarship will be assigned at the end of the Master, following the final exam: the winner will be contacted by phone and e-mail when the Selection Board will give the result.