




Caterina Zaggia

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WORK EXPERIENCE

Student and Conservation scientist

[01/09/2013 – Current]

Address: Padova (Italy)

During the scholastic period, I helped high school students in the study of different and difficult subjects (ancient Greek, Latin, Math, Chemistry, English and Italian Literature), with great results, teaching not only arguments, but also a learning method to make them independent in their study.

I also took part in different internship activities. One in the library of the Paduan University, in which I learn how to catalogue all the books in a library and how to organize the collection of ancient newspapers (from WW2 period).

The second in the laboratory of Cà Foscari University in Venice, for the synthesis of a new cleaning product (Nasier Gel®), that was also the main subject of my bachelor's thesis.

And then at Physic Department at the Nicolaus Copernicus University (UMK), in Toruń, Poland, for the evaluation of the feasibility of the cleaning capacity of an innovative gel system by means of Optical Coherence Tomography.

Volunteer work

[01/09/2013 – Current]

City: Padova

I participated to voluntary works in different associations, as "*Altro Mercato Equosolidale*", Red Cross, and Children's entertainer in the summer camp, organized by the church.

I also worked as scrutineer during the elections in Padua and I helped to teach gymnastic in Anna Frank's gym in Noventa Padovana.

EDUCATION AND TRAINING

Internship post-graduation

Consejo Superior de Investigaciones Científicas [01/05/2021 – 30/06/2021]

Address: Madrid (Spain)

Traineeship title: **Spectroscopic Characterization of Iron Gall Inks.**

The present work focuses on the development, optimization and comparison of analytical methodologies on enhancing instrumental configurations in vibrational spectroscopy mediated by nanostructures, with particular regard to the study of the chemical structure occurring in ferrogalllic inks. This kind of research was aimed at getting structural information from historical inks that can be found in ancient manuscripts and that were not satisfactorily interpreted so far. The work will include two different topics: a) Application of Raman, IR and XRF in the analysis of inks prepared in the laboratory following the traditional receipts, and b) the fabrication of nanostructures to increase the sensibility in the detection and characterization of these inks in the original manuscripts.

Master Degree in Science for the Conservation-Restoration of Cultural Heritage

Alma Mater Studiorum of Bologna [01/10/2018 – 25/03/2021]

Address: Ravenna (Italy)

Final grade : 110/110 cum Laude

Type of credits: CFU – Number of credits: 120

Thesis title: **Evaluation of suitability of PHB-GVL cleaning nanogel in comparison with established methods by means of OCT.**

During this course, I acquired a knowledge in the analysis and diagnosis of damaged cultural heritage materials. I learn how to use different instruments for the characterization of the damaged species and the elements present in a sample of a material.

I improved my knowledge in Chemistry (both organic and inorganic), in Physics (applied on cultural heritage), in Geology, Biology, Air pollution and in Computer science, all with the aim to understand better cultural heritage materials and their degradation problems.

Also, in these years I improved my level of English, because this Master Degree is only in English. I had the opportunity to meet people from different country, with different traditions and ideas, and this helped me to better myself as a person and to start to think as a future conservation scientist that will be in contact with different research's groups all over the world.

I also had the necessary skills to win the call for application, funded by a private organization called "*Fondazione Flaminia*", which gave me the opportunity to carry on my internship abroad in Toruń, Poland, at the Physic department of the Nicolaus Copernicus University. During this period, I was able to work in autonomy, learning new skills and focusing on my job. The results of this intership are going to be published and presented by Professor Piotr Targowsky, my supervisor, at the SPIE Conference 2021.

Bachelor's Degree in Tecnologie per la Conservazione e il Restauro

Cà Foscari University [01/09/2015 – 06/07/2018]

Address: Venice (Italy)

Final grade : 110/110 cum Laude

Thesis title: **Prove di biopulitura con Nasier su materiali lignei: rimozione di vernici invecchiate ("Clenaning tests with Nasier gel on wooden supports: removal of aged varnishes").**

During these three years, I acquired basic a basic knowledge in different fields (Chemistry, Physics, Geology, Restoration techniques, Medieval History, Conservation Theory, Biology, Microscopy), all with the aim to detect the degradation products and the problems present in cultural heritage materials.

I did a lot of laboratory activity, especially related to Chemistry, during that period and my thesis was related more to this scientific path (I studied the behavior of a new cleaning gel applied on varnished materials).

Therefore, I have a scientific background.

In 2014 I also won the award as the second best student of the course of Tecnologie per la Conservazione e il Restauro.

High school diploma

Liceo classico Concetto Marchesi [12/09/2011 – 09/07/2015]

Address: Padova (Italy)

Final grade : 95/100

During these years I studied especially ancient Greek, Greek literature, Latin, Latin literature, Italian literature, History and Philosophy. I am grateful to this school, which taught me how to expand my knowledge, how to see everything with a critical point of view and how to think always with my mind, considering all the different circumstances.

LANGUAGE SKILLS

Mother tongue(s): **Italian**

Other language(s):

English

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

Spanish

LISTENING A2 READING A2 WRITING A2

SPOKEN PRODUCTION A2 SPOKEN INTERACTION A2

DIGITAL SKILLS

Microsoft Office / Microsoft Powerpoint / Microsoft Excel / Microsoft Word / Google Docs / Google Drive / Zoom / Social Media / Power Point

ORGANISATIONAL SKILLS

Organisational skills

- Leadership: during my job as children's entertainer, I had to supervise groups with 15/20 children all by myself, making them play, eat, study and reflect about the different activities.
- Good team-leading competencies, also thanks to the projects and internships made during the years of university.
- Good problem-solving ability, improved during voluntary works and especially during internships.
- Good organizational autonomy, acquired in school and also during my studying experiences abroad (Toruń, New York, London, New Jersey).

Autonomy in work organisation

During the last internship in Poland, I had the possibility to work in almost complete autonomy, organizing the job day by day. In this way, even with the current pandemic situation, I was able to complete all the experiments, acquiring even more data than needed. This was a very important goal, considering that every acquisition was 17 hours long and that I analyzed and processed the data for more than 30 samples in just 2 and a half months.

COMMUNICATION AND INTERPERSONAL SKILLS

Communication and interpersonal skills

- Good communication competencies, acquired helping younger students in the study, and good relationship competencies, especially with children, improved during my voluntary works as children's entertainer and catechist.
- Good communication ability also in team, thanks to my previous experience in the softball team in Padua and to the group projects for the university.

JOB-RELATED SKILLS

Job-related skills

Good competence and mastery in different computer programs, used in the Science of Restoration field: Origin, Dino-Light, SpectraMagic NX, Konica Minolta Color, Excel, Word, Power Point, LabView and more.

I also have an excellent knowledge in the application of OCT and in the interpretation of tomograms.

I acquired good skills in the use of Optical Microscope.