The European Qualifications Framework for Lifelong Learning (EQF)
Dear Reader,

Welcome to the first issue of the ENCoRE Journal of Conservation-Restoration Education. The start of this publication coincides with the closing phase of the great transformation of the European higher education system known as the Bologna process. During this process the conservation-restoration education programs in most European countries have undergone great changes including adoption of the Bologna university structure.

Conservation-restoration is by nature a complex subject and education in this discipline demands a rather unique combination of theoretical and practical knowledge, skills and competences involving many auxiliary subjects from other academic disciplines. As conservation-restoration is a relatively new discipline in its own right and in order to meet the general demand for developing the quality of education, a forum for discussion and exchange of experiences among professional educators is called for. Therefore, the purpose of this new journal is to cover all aspects of education and its development including theory, didactics, new methods and experience in teaching practice.

It is my hope that this first issue will be the start of a sustainable professional communication channel to the support and encourage development and academic professionalism in conservation-restoration education.

René Larsen
Chairman of the Board of ENCoRE
### Table 1 C–R EQF (DRAFT)

<table>
<thead>
<tr>
<th>Level</th>
<th>Knowledge</th>
<th>Skills</th>
<th>Competence</th>
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</thead>
<tbody>
<tr>
<td>6*</td>
<td>advanced knowledge of a field of work or study of conservation - restoration, involving a critical understanding of theories and principles of conservation - restoration and other fields relevant to conservation - restoration</td>
<td>advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study of conservation - restoration</td>
<td>manage complex technical or professional conservation - restoration activities or projects, taking responsibility for decision-making in unpredictable work or study contexts under the guidance and responsibility of a conservator - restorer</td>
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<td></td>
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<td></td>
<td>take responsibility for managing professional conservation - restoration development of individuals and groups under the guidance and responsibility of a conservator - restorer</td>
</tr>
<tr>
<td>7**</td>
<td>highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study of conservation - restoration, as the basis for original thinking and/or research in conservation - restoration</td>
<td>specialised problem-solving skills required in conservation - restoration research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields of conservation - restoration or other fields of relevance to conservation - restoration</td>
<td>manage and transform conservation - restoration work or study contexts that are complex, unpredictable and require new strategic approaches</td>
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<td></td>
<td>critical awareness of knowledge issues in a field of conservation - restoration and at the interface between different fields of conservation - restoration and other fields of relevance to conservation - restoration</td>
<td></td>
<td>take responsibility for contributing to professional knowledge and practice of conservation - restoration and/or for reviewing the strategic performance of conservation - restoration teams</td>
</tr>
<tr>
<td>8***</td>
<td>knowledge at the most advanced frontier of a field of work or study of conservation - restoration and at the interface between fields of conservation - restoration and other fields of relevance to conservation - restoration</td>
<td>the most advanced and specialised conservation - restoration skills and techniques, including synthesis and evaluation, required to solve critical problems in conservation - restoration research and/or innovation and to extend and redefine existing knowledge or professional practice of conservation - restoration</td>
<td>demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research in conservation - restoration</td>
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</table>

* The descriptor for the first cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 6.

** The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.

*** The descriptor for the third cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 8.

Note: The contents, levels and types of C-R knowledge, skills and competences are those as defined in the ENCoRE Document of Clarification, The E.C.C.O. Guidelines and the general learning outcomes defined by the ECPL project.
Conservation-Restoration Education in the light of the European Qualification Framework for Life Long Learning

René Larsen, Chairman of the Board of ENCoRE

This paper presents the most important aspects of the development of the academic conservation-restoration education in Europe focusing on the most recent activities in relation to the Bologna process for higher education institutions in Europe including the European Qualification Framework (EQF) and accreditation. This development and the fact that more and more conservation-restoration education programmes have adapted the Bologna structure for Higher Education (HE) lead to the suggestion of ENCoRE for a European Qualification Framework for Conservation-Restoration education (C-R EQF). This defines the generic learning outcomes according to EQF levels 6, 7 and 8 and is intended for the formulation of Qualification Frameworks at national level (C-R NQF).

The Role of ENCoRE

The European Network for Conservation-Restoration Education ‘ENCoRE’ was founded in 1997 with the main objective to promote research and education in the field of cultural heritage. Its foundation is based on the directions and recommendations given in the Professional Guidelines of the European Confederation of Conservator-Restorers Organisation E.C.C.O. [1] and the Document of Pavia of October 1997. [2] The objectives of ENCoRE are to:

- Develop and promote professional conservation education at the highest level
- Improve and encourage co-operation between academic programmes and institutions which offer courses and research programmes in conservation-restoration
- Support and increase mobility of teaching staff and students within Europe
- Promote collaborative research in the discipline of conservation-restoration

The ENCoRE document “Clarification of Conservation-Restoration Education at University Level or Recognised Equivalent” is an important contribution to the ongoing development within education and it defines as a major aim that by 2010 all conservation-restoration education in Europe will fulfil the Bologna Declaration for European higher education.[3]

The Conservation – Restoration Discipline

As an academic discipline conservation-restoration is per definition based on the highest level of research. The basis of conservation-restoration education consists of appropriate balance between integrated theoretical and practical teaching as defined in The Document of Pavia.[2] Due to the wide and range of holistic knowledge, skills and competences required, it is widely agreed that individuals with less than five years of full-time specialised academic education or its equivalent, in conservation-restoration, cannot be considered to be professional Conservator - Restorers. Therefore, ENCoRE aim that the conservation-restoration education shall comprise a total of at least 5 years of full-time study or part-time equivalent or 300 ECTS points of theoretical and practical education and training normally provided by, or under the supervision of, a university or recognised equivalent and graduating at Master’s level or reaching equivalence.

The EQF for Life Long Learning and the ECPL Project

The objective of the EQF is to create a European framework which will enable qualifications systems at the national and sectoral levels to relate to each other. This reference structure will be used on a voluntary basis and will facilitate the transfer and recognition of qualifications held by individual citizens.[4,5] The Berlin Declaration of 19 September, 2003 reads as follows: “The quality of higher education has proven to be at the heart of the setting up of a European Higher Education Area.” Moreover, the Declaration states that the ministers agree that by 2005 national quality assurance systems should include:
• A definition of the responsibilities of the bodies and institutions involved
• Evaluation of programmes or institutions, including internal assessment, external review, participation of students and the publication of results
• A system of accreditation, certification or comparable procedures
• International participation, co-operation and networking [6]

Furthermore, both evaluation and accreditation are considered as important tools for quality assurance. Thus, the Communiqué of the Conference of Ministers responsible for Higher Education in Berlin points out political requests aiming at:

• Facilitating Europe-wide recognition of “credits” and university degrees
• Promoting mobility of students and teaching staff Informing the labour market on the value of degrees
• Providing mechanisms to ensure that higher education institutions are accountable for the effective use of public funds.
• Protecting consumers against false information and low-quality university degrees and other qualifications.” [7]

At the Bergen Conference of European Ministers Responsible for Higher Education 19-20 May 2005 was adopted the overarching framework for qualifications in the EHEA, comprising three cycles (including, within national contexts, the possibility of intermediate qualifications), generic descriptors for each cycle based on learning outcomes and competences, and credit ranges in the first and second cycles. Ministers committed themselves to elaborating national frameworks for qualifications compatible with the overarching framework for qualifications in the EHEA by 2010, and to having started work on this by 2007.” [8]

In the summary and conclusions chapter of the document “Towards the European Higher Education Area: Survey of Main Reforms from Bologna to Prague” is stated: “Finally, it seems important to point out that the future of the Bologna process and indeed of European higher education is bound to be related to two fundamental principles which could guide all future action:

• students in Europe have a need and a right to study for degrees that can effectively be used in Europe, not just in the country/region where they were earned;
• a major responsibility of higher education institutions and governments in Europe is to ensure that they take all steps needed to be in a position to award this type of qualifications to their students.” [9]

An effort to meet these needs within the conservation-restoration education area was made by the European Conservation Practitioner’s Licence project, ECPL, a two year pilot project funded by the European Union’s Leonardo da Vinci programme. [10] In the project several institutions as well as the European Confederation of Conservator-Restorers’ Organizations (E.C.C.O.) and ENCoRE worked together to identify common standards in conservation-restoration.[7,11] Thus, Minimum Common Standards were thus defined at the highest of the EQF levels - 7 and 8 for each of twelve areas of specialization and Model Curricula were developed for four of the materials. Both the Standards and the Curricula developed follow the EQF principle of defining the standards using learning outcomes, thus allowing the validation of all forms of learning.

As stated in one of the documents produced by the ECPL project, by “defining the common standards, and through the creation of a model curricula, the project has provided a benchmark which can be used to review existing practices or create new courses. Moreover, by providing a framework which may eventually be applied across Europe, the project aims to enhance evenness, transparency and quality assurance in qualifications and certification. By basing the recognised levels on learning outcomes the project provides the means to value prior learning and thus enables recognition of knowledge, skills and competences gained through formal, informal and regulated non-formal learning contexts.”[12]

The Development of European C – R Education Programmes

There has been large and is still some diversity in tradition, level, length and institutional belongings of the conservation-restoration education programmes in Europe. Today most European countries offers programmes at higher education levels with some variations in length and level. However, the development show a clear trend towards master level after five years and in most cases the 3 + 2 model structure and in more and more cases with the possibility of a PhD programme on top.

On the other hand the conservation-restoration discipline and education area are characterised by its great variety of materials, subjects and specialisation to be covered by relative few specialists.
and little resources. In general, this situation will be a permanent challenge, which can only be solved by national and international co-operation between the conservation-restoration education, the conservation-restoration profession and other relevant academic and professional parties outside our specific area.

At the national level different ways and traditions in education have developed to overcome not least the lack of resources each of which in many ways have enriched the European conservation-restoration education and profession as a whole. However, the fact that the higher education system in Europe in near future will be based on the same modular system, with credit transfer possibility, common curriculum profiles and defined learning outcomes etc. does not mean that the different system and traditions established in the conservation-restoration education are not eligible ways for development. On the contrary the possibilities for mobility and exchange of students and staff with the economic support from the Erasmus programme have opened new possibilities and resources between education programmes and professional institutions in Europe.

EQF versus NQF

The European Qualifications Framework for lifelong learning creates a reference framework which will relate different countries’ qualifications systems and frameworks together.[1] It is meant to act as a translation device to make qualifications more readable and understandable to employers, individuals and institutions, so that workers and learners can use their qualifications in other countries.

The EQF is a lifelong learning framework, applying to qualifications obtained in all sectors of education, including general education, higher education (HE) and vocational training (VO). Its core is its eight reference levels of qualifications, from those obtained at the end of compulsory education, (level 1) to the highest (level 8: doctorate or equivalent). The three highest levels correspond to higher education levels as defined within the European Higher Education Area, under the Bologna Process, e.g. Bachelor, Masters and PhD levels. However, it should be noticed that they may also stand for highly specialised professional qualifications.

According to the European agreement for life long learning each European country is responsible to formulate their National Learning Outcomes (NQF) on the basis of the recommended EQF. At the national level each Higher Education Institution (HEI) is responsible for the formulation of learning outcomes for level 6, 7 and 8 on the basis of their NQF. Therefore, ENCoRE took up the task of writing a draft generic C-R EQF recommendation for the formulation of the individual C-R NQF (see Table 1) to be discussed and voted on at its General Assembly this year. This builds on the EQF and the content of the ECPL learning outcomes covering all three levels 6, 7 and 8.

Assessment and Verification of Individual NQF Statements

On the European level there are several important issues to be dealt with in order to ensure the right quality in and development of the C-R education. On page 3 of the final European EQF document, learning outcomes are defined as a statement of what a learner knows, understands and is able to do on completion of a learning process. The EQF is meant to contribute to reducing barriers between education and training providers e.g. between HE and VOT. Moreover, It shall facilitate validation of non-formal and informal learning and make it easier to assess whether learning outcomes acquired in these settings are equivalent in content and relevance to formal qualifications. Per definition HEI and HE professionals are those qualified to assess and validate learning outcomes at levels (5), 6, 7 and 8.

It is obvious that the European C-R education and profession needs a systematic and well coordinated joint system as the basis for assessment and validation of learning outcomes and how these may be achieved. In the same time this may be the solution to the problems of meeting the ENCoRE education requirements in some countries. Thus, this opens for the possibility that for example combining an education from an accredited C-R master programme with a relevant bachelors degree (for example in archaeology, art history or chemistry) and credited internship in recognised professional conservation-restoration workshops. The aim is that the holder of the a master’s degree in conservation-restoration has obtained 300 ECTS in agreement with the definitions of ENCoRE and E.C.C.O. as well as the defined European curriculum and the C-R EQF level 7.

Endnotes


10. www.ecpl-project.eu


In 2002 at an IIC Congress in Baltimore, Jean Brown introduced herself to John Krill and said that she’d like to talk to him about teaching paper conservation. She taught, and still teaches, at the University of Northumbria, in England. John, who teaches at the Winterthur/University of Delaware Art Conservation Program loved the idea of talking about teaching and added a second idea. He asked what would she think about having a meeting and inviting teachers from other programs. Jean gave a positive reply and both agreed to speak to their supervisors. Within a week, they had their support and began exploring possibilities for the first international meeting for Training & Education in Paper Conservation. Since 2003, the group has met annually with meetings in Newcastle, Paris, Amsterdam, Brussels, Cologne, and Vienna.

Their first job was to locate the training programs. The second job was to establish an agenda from their myriad of questions, such as: What’s your program like? How do you go about teaching? Can we help each other in any way? From these early thoughts, Jean developed an outline for each delegate to follow when making their introductory presentation at the meeting. It turned out that we were all curious about: admissions procedures, curriculum organization, types of off-campus conservation training, and assessment procedures. After all, most of us had been teaching for more than twenty years and had never met to share our stories. One teacher said, “It’s of immense importance to simply be able to discuss issues with like minded colleagues who understand the pressures and pleasures of our work.” Our meetings have generated mutual respect and trust between program leaders making future collaboration a reality and benefiting our students immeasurably.

There were many similarities among programs - especially strong was that of helping students to develop judgment and not to be spoon fed. We learnt about the rigors of applicant selection. Assessing hand-skills is a good example. One year the program at the Netherlands Institute for Cultural Heritage provided each applicant with an instruction sheet for making an intricate structure, along with wooden sticks, heavy paper board and paper. The applicant had to decide which materials to use for making the structure. The assignment tested the applicant’s ingenuity, hand-skills, neatness and ability to follow instructions. That’s not all. The half-day test also had applicants write two essays: one discussing proposed procedures before starting the project and one summarizing work after completion. Successful applicants were invited back for the final interviews. The Dutch program had stamina; the test changed every year.

Another compelling selection process is used in France by the Institute of National Heritage [Institut National du Patrimoine] known as the INP Program. Applicants are tested in art history, physics, chemistry, manual skills, color matching, languages, drawing, and the history of technology. If these pre-interview tests are passed, the applicants are invited back for admissions tests. One of the final admissions assessments is for fine art skills. For students interested in paper conservation, the applicant is given one week, at the school, to copy both a master drawing and a master print. Needless to say, when visiting the program the students’ fine art skills were breathtaking.

At the Sorbonne, fine art skills were equally strong and focused on academic drawing. During admissions interviews, students draw a still life containing a plaster cast. A drawing teacher grades the applicants work and lets the Admissions Committee know who passed. In addition, each applicant takes a manual dexterity test filled with cutting, folding, assembling, pasting, and coloring paper and board in order to make a very specifically shaped box. Finally, there is a visual dexterity test. Each applicant is given black paint, white paint and a brush. With these they must simply create a twenty-step grey scale in two hours.

For delegates, the sharing of teaching tips is one of the most riveting parts of our meetings. At
the first meeting the most basic questions were asked, such as where do you get your dirt to prepare mock-ups for surface cleaning studies? The answers were as diverse as the programs. One teacher said: Place the papers in a paper bag along with dirt emptied from a vacuum cleaner; then shake. Another replied: Tape a large sheet of paper on the floor inside the school’s entrance door for two consecutive dry days. A third, more reserved response, was: Use dirt made for textile industry tests. Store-bought grime includes: fine dust, a mix of sand and dust, and British Rail dirt.

The Netherlands Institute for Cultural Heritage Program introduced us to www.Archives.org, where papermaking films can be downloaded for teaching. Topics are intriguing. They include: From Trees to Tribunes, about making newspaper for Chicago in 1931, These are the People, about papermaking in Wisconsin during World War II, and The Paperman’s Paper, a 1952 movie-short from the series Industry on Parade.

A number of training programs are housed in fine art schools, including, France’s INP, Brussels, Copenhagen, Vienna, and Vantaa in Finland. These programs involve both conservation students and fine art students in collaborative projects. In Brussels, conservation students worked with Japanese paper-artists creating three-dimensional paper works. In Vienna, conservation students help fine art students prepare and install their exhibitions. The art majors learn about conservation by doing and the conservation majors are rigorously introduced to the display needs of contemporary art.

Several programs, both in the U.S and abroad, encourage their students to contribute to computer databases, especially resources focusing on the history of materials and technologies. These are added to annually as students discover new information through examination and research. This kind of work is now being shared between programs. The Finish program has an excellent paper history data base to which all programs have been invited to contribute. It goes further than watermark databases. It includes sizing, color and acidity measurements, and fiber morphology and pulp type.

One U.S. delegate spoke about their successful “Journal Club”. Students must find, read, and distribute to their classmates an article published within the past two years. Each student is responsible for reading a significant number of references in their article in order to put the article into context. At the Journal Club meeting, a student leads a discussion on their article, which everyone has read. Questions are raised: Did it measure what it said it would measure? Were the testing methods appropriate? Did the data support the conclusions? Students were at first a little shocked and dismayed by the inconsistencies found in some articles, likewise, they began to see differences between juried and non-juried publications.

At the meetings there was strong agreement about the inclusion of science in paper conservation curricula. It’s been said by some that American training stresses science more than European training. Interestingly, the majority of European programs present at the meetings strongly support scientific research. The delegate from France’s INP program stated: “students in school have enormous possibilities for studying science that conservators rarely find out-of-school. They can analyze objects to better understand them and to propose treatment strategies. Their adding this information to databases is essential, so that the time, energy and information are not lost.” Several programs strengthen their scientific studies by carrying science projects over from year to year, and not placing them solely under the name or direction of one student. In this way the results are refined, elaborated upon, and make strong contributions to the field.

Student projects were shared during the meetings. It was good for each of us to hear what other programs are involved in. One student project focused on Chitosan, a sizing made from shrimp shells and used in machine papermaking in Thailand. It has a neutral pH and increases the wet strength of paper. Possible applications in paper conservation were being explored, including strengthening brittle wood pulp paper.

A second science project explored the use of direct textile dyes for toning Japanese papers. Only a small amount of dye is needed. Unlike some paints, the dyes leave no shine or surface alteration to the paper, nor do they inhibit papers flexibility.

A third examined the materials and conservation of inkjet printing. The student covered its history over the past forty years, discussed technical details about associated papers and design materials, presented preservation guidelines, and concluded with the few treatment options now practiced.

Meeting paper conservation scientists also gave glimpses to the future. In Paris, at the Research Center for Graphic Document Conservation,
they're developing a new conservation paper with high gas sorption properties for use in storage and framing. And, the Center has just finished developing new fading standards to replace the British wool standards. The new standards react faster than the blue wools and indicate accumulated light exposure. Along with these projects was the pleasure of seeing new equipment, like a micro pH meter to test infinitesimally small areas or volumes.

Intricate testing tools were also seen in Brussels, at the Royal Institute for Cultural Heritage. They had an instrument that could take a .02 mm bore of paper. The paper bore, which was as small as a pin prick, was used for cross-section microscopy and other analysis. One colleague said: “I'll believe a sample is that small when I see it.” And that was the point; you couldn't see it, at least not with the naked eye.

In Amsterdam, Birgit Reissland brought us up to date on the three year InkCor project. Work focused on assessing iron gall ink's corrosion both visually and analytically, and, on developing treatments. A team of art historians, paper conservators and paper scientists was assembled for the evaluations. Their challenge was to come up with an agreed upon degree of acceptable change to both the support and its design.

Birgit added an interesting aside on international work teams. Everyone uses English when it is often no one's first language. E-mails, in particular, being quick, easily become pitfalls with misinterpretation causing big problems. Her recommendation is for informal meetings where participants talk face-to-face. She feels that a better understanding of the topic under review comes in a casual atmosphere. It leads to more imaginative, expressive, and collegial communications. Our group Training & Education in Paper Conservation decided to listen to her. We've had some very delightful - and informative - dinner parties, receptions, luncheons and walks.

Speakers on training and education have been invited to our meetings. There was a wonderful workshop in which delegates from Italy, Canada, France, Denmark, England, the Netherlands and the United States together planned an ideal paper conservation curriculum for ideal paper conservation students. We assessed the skills and knowledge looked for in students when they first enter the program as well as what was expected of them by graduation. The difference between these two profiles was called the “learning gap.” This gap was what the curriculum had to fill.

Our ideal curriculum in hand, the program leader, Garth Rhodes, slipped us back into the real world. Experience told us that the “learning gap” would vary from student to student. Garth led us directly to the idea of building a student centered course design within our ideal curriculum. Since then, this concept has been embraced by several programs both in Europe and the United States.

The first step is to draw up a curriculum based on the students’ anticipated performance level at the end of training. Here a backbone is provided from the competencies assembled by AIC [American Institute for Conservation] in the United States and ENCoRE in Europe. Both organizations have published the conservation profession’s expectations for program graduates. So we know the end product; the trick is where to begin. Planning a student centered course begins by assessing where each student’s development falls within the learning gap. For example one student may have had lots of experience mending paper, but little experience in stain reduction. A student centered course begins by charting each student’s strengths and weaknesses within the curriculum goals. During regular weekly or monthly student/teacher meetings, clear paths immerge for each student’s training needs as well as for the acknowledgment of the student’s accomplishments. Both the student and the teacher see how work is progressing and what needs to be done before graduation.

One of our most riveting speakers was the Dutch educator Tom van Wert, who spent his professional career studying how students learn. One of the concepts about which he feels strongly is called "learning in real-life.” He found that the majority of students learn quickly, efficiently, and well, not through traditional teaching, but rather through real-life situations - particularly when students work together in teams to solve a problem. In real-life teaching the student team applies its “collective intelligence” while they work for a client, not for the teacher. Of course their work does not come out of a vacuum. The teacher introduces them to the fundamental procedures, tools, and protocols of the discipline. The real-life problem lets students apply their knowledge.

A good real-life learning problem has parameters. It has no right answer; the problem can be solved in different ways. It should be a complex problem which involves making choices. It should be a situation that can be effectively addressed by more than one person. It should be worthy of time and decision-making. The end product simply must meet the client’s needs and wants. If the client
buys into the students’ work, the students pass. John was intrigued with the concept of “learning in real-life,” and used it during the paper block for the University of Delaware’s first year art conservation students. It became one of the most rewarding assignments he has ever given. The ten students were divided into two teams of five students. Each team was given five prints to examine. Both sets of prints were owned by a client who had particular goals for their preservation. With the client’s goals in mind, each team developed three different treatment proposals for their group of five prints.

Although John taught practical lectures and the students did hands-on treatment experiments related to the client’s prints, the team work was done completely on their own and independently of their teacher. Both teams worked hard preparing their proposals clearly and thoughtfully for the client. Would it work? The majority of the students had never had paper conservation before. John had no input into the teams’ plans, thoughts, presentations, or proposals. He could only trust in the goodness of humanity.

The student work was fabulous! Both teams were different - one was high tech and one was low tech. Each team was clear in its presentations and thoughtful with the client. The team members listened to the client, had dialogue, and made compromises. The client accepted the work of both teams and called it excellent. The students glowed with pride and happiness.

Of course, the University required a numerical grade for the project. At the end of the project, the teams used self evaluation forms which were given to them on their first day. The forms gave them structure, outlining the competencies that were expected from the team. The students surprised themselves with how much they had accomplished and how well they had done. The University also required a final written examination for the course in paper conservation. Here, the students were far ahead of former students. John truly thinks that this was because they worked together and came to understand paper conservation in order to discuss it with their client.

At the international meetings not only are teaching joys shared, but also teaching challenges. One teaching challenge agreed upon by all delegates is the expanding world of paper conservation which involves much more than bench work. Two areas stood out above all others, and both were solidly supported by the delegates: these areas were preventive conservation and collections management. During discussion it was pointed out that a generation of curators and librarians has heard about conservation care. What they need are trained people to implement it. Both the Dutch and the Sorbonne programs have started with these basics. They offer courses and provide certificates for preparators. Both countries have more openings for preparators than there are qualified persons to fill them. At the other end of training, at least two programs offer PhDs in preventive conservation.

The Northumbria program has taken a new approach to teaching preventive by offering a distance learning master’s degree in preventive via the internet. By harnessing new technologies, distance learning shares expertise throughout the world - across continents, cultures, economies and generations. Students are provided with discussion boards, chat rooms, and support from the University’s information technology services. It is hoped that electronics will also be used to help strengthen our group Training & Education in Paper Conservation. Among our collaborative efforts is the development of a website. It’s seen both as an informative tool for students and the public as well as an electronic forum for the faculty. It would help us communicate with each other, strengthen our competence as teachers, and advance the learning and professional development of our students. The website would include: the distribution of annual meeting reports, listings of student and teacher research projects, internship needs and opportunities, distance learning collaboratives, a notice board for teacher questions and discussion, and a comparative guide to the training programs.

The teacher notice board would be very helpful. Time changes everything. In the past six years, several programs have changed their curriculum structure, two programs have changed their names, one program has been changed from a government program to a university program, and several programs have added PhD studies to their curriculum.

Teachers of conservation science are excited by the proposed research component of the website. By posting current [and past] science projects, students in all of the training programs would have access to what is being studied and what has been studied. For example, the conclusions of a science project in Melbourne could be pursued by a student in Vienna. The Viennese student could either repeat the Melbourne project [for repetition of data leads to assurance] or take it forward with
further explorations. Our dream has begun but is not yet completed. Its elemental start can be seen at www.paperconservationtraining.org. It is hoped that this brief review gives you some feeling about the training of paper conservators as our world is seemingly shrinking through transportation and communication technologies and as our collegiality and openness moves us forward in working together.
Responding to EQF in conservation-restoration education: From learning inputs to learning outcomes

Martina Caruana

The conservation-restoration discipline is a relatively recent one, and statements and guidelines on education in this field have only been published over the past 25 years or so with considerable interest registered over the last decade. The focus of these documents has largely been on subject matter for course content and research, together with parameters for course implementation including course duration and level.[1] The recently adopted European Qualifications Framework for lifelong learning (EQF) calls for a change in approach. The EQF is a “common European reference framework which links countries’ qualifications systems together acting as a translation device to make qualifications more readable and understandable across different countries and systems in Europe.”[2] Work on the establishment of the EQF began in 2004 and was formally adopted by the European Parliament and the Council on 23 April 2008.[3] The European Conservation Practitioner’s Licence (ECPL) project was conducted during the gestation period of the EQF at a time when the EQF documents were being consulted by the various member states and revisions were being proposed prior to formal adoption.[4] Notwithstanding the fact that documentation on EQF had not be formalised, ECPL responded to EQF and was the catalyst for the start of a shift in approach from learning inputs to learning outcomes in the field of European conservation-restoration education.

The ECPL project

The ECPL project was a two-year Leonardo da Vinci Pilot Project that ended in September 2007 whose objectives were to address the problems presented by the lack of comparability in the field of education and training in conservation-restoration and its recognition. It sought to achieve this by defining common European standards in conservation-restoration education and training, and through the establishment of a common European licence. The ECPL consortium consisted of five project partners which were Ecole d’Avignon (France), Technological Educational Institute of Athens (Greece), Fondazione Kepha (Italy), Istituto Palazzo Spinelli (Italy), and Heritage Malta (Malta) who collaborated with the European Confederation of Conservator-Restorers’ Organizations (E.C.C.O.), the European Network for Conservation-Restoration Education (ENCoRE), and the Malta Qualifications Council (MQC). Apart from the project management work package which was led by Heritage Malta, the project was essentially organised into three separate but interrelated work packages. The work package on the EuroMatrix Heritage - a pan-European survey of institutions in conservation education was led by Fondazione Kepha. Istituto Palazzo Spinelli led the work package that focused on the definition of European Minimum Common Standards (MCSD) in conservation-restoration, while the final work package led by Ecole d’Avignon included the drafting of documentation relating to the development of an infrastructure to review, validate and administer the European Conservator-Restorer’s Licence. The ECPL’s EuroMatrix Heritage work package aimed at understanding the current situation of conservation-restoration education and training through a systematic survey of relevant institutions within European member states. It involved the distribution of two questionnaires, the second requesting an institution’s self assessment of its programmes according to the levelled descriptors outlined by the EQF.[5] The data collected was tabulated and analysed in the form of a report.[6] Although the data collection exercise did not yield comprehensive results, the survey clearly confirmed the diversity and unevenness in education and training in conservation-restoration together with a need to facilitate the adoption of the EQF system. It has provided a significant step in mapping the complex problem of the lack of harmonization and comparability in education and training in conservation-restoration in Europe,
which problem clearly impacts on the sector in terms of accreditation, certification, employment and mobility.

Important steps towards the creation of standards in conservation-restoration education and training, were made in the EuroMCSD workpackage which carried out the groundwork for the definition of multi-tiered competence-based standards. EQF descriptors were again used as a benchmark. Within this workpackage, the consortium, in collaboration with E.C.C.O. and ENCoRE, clarified that the level of knowledge, competences and skills required for the professional Conservator-Restorer can only be fully achieved following education and training at EQF level 7, which may be followed by EQF level 8 research in the field.[7]

When the ECPL project had been drafted at application stage, it had identified a generic term, ‘conservation practitioner’, as a possible term to describe people involved in the conservation-restoration process at different levels, particularly levels 1-5. This potential term had in fact given rise to the acronym ECPL which stands for European Conservation Practitioner’s Licence. However, during the course of the project it became increasingly evident that such a term is a misnomer and that conservation-restoration practice is the responsibility of the Conservator-Restorer who may, nonetheless, supervise other contributors to the process. For want of a better word, the project referred to such contributors and other colleagues forming part of the multidisciplinary team in conservation-restoration as belonging to ‘related professions and related occupations’, thus also acknowledging that tasks may be undertaken at different levels following education and training. This workpackage of the ECPL project developed the MCSDs through the definition of the professional profile at EQF levels 7 and 8 according to the parameters of a former Leonardo da Vinci EU-funded project which was adapted to accommodate the definitions at EQF levels 7 and 8 [8]. Yet, following the decision that the various contributors to the conservation-restoration process merited inclusion in the MCSDs, the structure was extended to account for the ‘related professions and related occupations’. [9]

The MCSDs specifications were further developed into template curricula - one for the Conservator-Restorer at EQF level 7 and another for the Conservator-Restorer at EQF level 8. The documents, containing chapters on principles, general considerations and course faculty and infrastructures guidelines, were based on the definition of the EQF learning outcomes in terms of knowledge, skills and competences. These templates were then applied as a model for the development of curricula in different materials.[10] Whilst confirming the parameters for formal education already outlined in pre-existing documentation,[11] the learning outcomes resulting from the ECPL project at EQF levels 7 and 8 clearly defined the knowledge, skills and competences that such formal education should produce and constitute a significant landmark in the development of conservation-restoration education and training within the context of the broad developments in European education at large. Furthermore, these learning outcomes define those qualities which an individual should have in order to become a Conservator-Restorer whether by means of formal, informal and/or non-formal education. An edited version of the learning outcomes is reproduced hereunder.

Learning outcomes – Conservator-Restorer
EQF level 7 [12]

Knowledge

i Advanced general knowledge, comprehensive of related scientific issues, of:

- archaeological, historic and modern materials, techniques and manufacturing processes;
- the composition and properties of the constituents;
- damage and decay causes, processes and effects, paying special attention to environmental interactions;
- the composition, properties and effects of traditional and modern conservation materials;
- conservation-restoration treatments;
- preventive conservation treatments on/of cultural property at large and highly specialized knowledge in a specific field of work/study.

ii Critical awareness of knowledge issues in the sciences (including chemistry, physics, biology, mineralogy etc.) relevant to the field of specialization and at the interface between the different disciplines related to conservation-restoration.

iii Advanced knowledge of technical and scientific methods of documentation, examination and recording, including the principles of measuring the deterioration of cultural property.

iv Critical analysis and elaboration of scientifically established data.
v Critical awareness of knowledge issues in the field of the humanities (including history, art history, archaeology, ethnology, philosophy etc.) relevant to the field of specialization and at the interface between the different disciplines related to conservation-restoration.

vi Highly specialized knowledge of the history of conservation-restoration and the ethics of the profession.

vii Comprehensive, specialized, factual and theoretical knowledge:
- of the relevant legislation;
- of health and safety issues, notably with respect for the environment;
- of communication skills;
- in Information Technology.

viii Highly specialized knowledge of methodologies for the assessment and evaluation of individual objects, collections and historic and archaeological contexts.

ix Critical awareness of knowledge issues on the processes involved in making reproductions of cultural property.

x Advanced knowledge of research methods involving a critical understanding of theories and principles.

xi Factual and theoretical knowledge of management and administration (including working facilities, staff and resources).

Skills

i Ability to apply specialized problem-solving skills to develop new knowledge and procedures and to integrate knowledge from different disciplines to:
- perform conservation and restoration activities such as autonomous treatments, programmes, projects and surveys, including experimental and developmental work based on scientific and humanistic methodology.[13]
- perform preventive conservation, including the measurement of damaging factors and their influence on cultural property, as well as the analysis of risks and their control.

ii Ability to apply advanced skills in scientific analysis, to interpret and evaluate the results of research performed by others; ability to apply advanced skills in technical and scientific methods of documentation, examination and investigation and recording, including the principles of measuring the deterioration of cultural property (including graphic, word processing and photographic techniques).

iii Ability to apply specialized problem-solving skills:
- in research and/or innovation, in order to develop new knowledge and procedures in conservation-restoration;
- for the research, assessment and evaluation of individual objects, collections and historic and archaeological contexts;
- for the research, identification and dating of archaeological, historical and modern materials, techniques and manufacturing processes.

iv Ability to consider and integrate both ethical and aesthetic issues, as independent professionals, and/or in cooperation with "related professions and related occupations" (i.e. art historians, archaeologists, etc.) who contribute to conservation-restoration study/work.

v Ability to apply a comprehensive range of cognitive and practical communication skills, both oral and written.

vi Ability to apply expertise in management and administration in order to generate solutions to specific problems in the field of conservation-restoration work/study.

Competences

i Competence in managing and transforming:
- conservation-restoration work/study contexts that are complex, unpredictable and require new strategic approaches, notably through effective planning and coordination;
- the storage, handling, transport and display of cultural property, all complex and unpredictable matters that require new strategic approaches, notably through effective planning and coordination;
- preventive conservation work/study contexts that are complex, unpredictable and require new strategic approaches, notably through effective planning, coordination, and taking into account the risks caused by damaging factors and their influence on cultural property.

ii Competence in providing advice and technical assistance for the preservation of cultural property.

iii Competence to take responsibility for contributing to professional knowledge and practice in conservation-restoration and/or for reviewing the strategic performance of teams.

iv Competence to contribute to the development of conservation-restoration educational programmes and competence to teach.

v Competence to disseminate information gained from examination, treatment or research.
Learning outcomes – Conservator-Restorer EQF level 8 [14]

Knowledge, skills and competences acquired will pertain to the specific area of EQF level 8 research and relate to a number of relevant topics, examples of which are listed here:

Knowledge
i  Knowledge of:
   • archaeological, historic and modern materials, techniques and manufacturing processes;
   • the composition and properties of the constituents;
   • alteration, degradation processes and their causes, processes and effects;
   • the composition, properties and effects of traditional and modern conservation materials;
   • conservation-restoration treatments;
   • preventive conservation treatments;
   • technical and/or scientific methods of documentation, examination and/or recording, including the principles of measuring the deterioration;
   • methodologies for the assessment and evaluation of individual objects, and/or collections and/or historic and/or archaeological contexts;
   • the analysis and elaboration of scientifically established data in relation to a specific field of work/study dealing with cultural property at the most advanced frontier of the distinct area of conservation-restoration.

ii  Ability to apply the most advanced and specialized skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge and/or to integrate knowledge from different disciplines or professional practice:
   • to perform conservation and restoration activities such as programmes, projects and surveys, including experimental and developmental work based on scientific and humanistic methodology;
   • to perform preventive conservation,
   • to develop new knowledge and procedures in conservation-restoration;
   • for the research, assessment and evaluation of individual objects, and/or collections and/or historic and/or archaeological contexts;
   • for the research, identification and/or dating of archaeological, historical and/or modern materials, techniques and/or manufacturing processes.

Skills
i  Ability to apply the most advanced and specialized management, administration, and/or information technology skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge and/or to integrate knowledge from different disciplines or professional practice in the field of conservation-restoration work/study.

Competences
i  Competence in demonstrating substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research in:
   • conservation-restoration;
   • the storage, handling, transport and display of cultural property;
   • preventive conservation work/study taking into account the risks caused by damaging factors and their influence on cultural property;
   • the preservation of cultural property;
   • contributing to professional knowledge and practice in conservation-restoration and/or for reviewing the strategic performance of teams.

ii  Competence in demonstrating substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to:
   • development of conservation-restoration educational programmes and competence to lecture and supervise research;
   • dissemination of information gained from examination, treatment or research.

The final objective of the ECPL project was to create a framework within which these standards could be managed and monitored at European level, through the establishment of a common European licence which would validate an individual’s education. This was done within the
context of the fact that the profession is only legally recognised in a few European countries and that regulation is currently exercised in even fewer. Moreover, the diversity across European member states in the field of national bodies and national qualification frameworks was also noted. Few European countries have specialized national bodies/warrants boards responsible for validating practitioners at a national level and, where these exist, they operate within different frameworks. The project studied this situation within the context of the needs of National Qualifications Councils resulting from EQF, wherein the need for sectoral authorities to act as reference points for specialized national bodies, where these exist, and to act as advisors to the national authorities, or even as a temporary replacement, in those countries where these do not, was identified. The ECPL developed a proposal for a European licence to be known as the European Conservator-Restorers’ Licence (ECRL) based on the concept of a professional warrant or licence which enables the holder to practise a specific profession.[15] The consortium took into account the possibility of having a system within which an applicant may have the option to apply for both a national and a European licence to practise as a professional Conservator-Restorer, resulting in a double badging system. This would enable national systems to operate on a national level whilst giving them the opportunity to facilitate the award of the European licence if the applicants conform with the European standards. The above considerations were articulated into a model statute for the establishment of a sector skills unit in conservation-restoration with the aim of reviewing and administering standards in its field. Furthermore, the project negotiated a formal agreement between the ECPL consortium and E.C.C.O. and ENCoRE, to establish the first European sector skills unit for the conservation-restoration profession with the aim to create, administer and award the ECRL in collaboration with national authorities.

Conclusion

The project has contributed to the achievement of the objectives of the Bologna process and its European Higher Education Area with specific reference to conservation-restoration through the formulation of an applied framework that encourages comparability, compatibility and coherence of higher education in Europe, achieving transparency and consequently facilitating mobility. Through its move towards a learning outcomes approach, the ECPL project has provided clear parameters within which the provision and understanding of education and training in conservation-restoration can be achieved on a pan-European scale. It has defined the common standards for education and training in conservation-restoration with particular reference to the professional Conservator-Restorer. This is entirely consonant with the philosophy of the EQF which “recognises that Europe’s education and training systems are so diverse that a shift to learning outcomes is necessary to make comparison and cooperation between countries and institutions possible.”[16] The ECPL initiative has therefore acted as a pilot exercise which can be extended to education and training in the related professions and occupations identified in the project, whose common standards require definition for the benefit of the conservation-restoration process and all the stakeholders involved. Moreover, the project has motivated change in the conservation-restoration education sector within the framework of the EQF. Two European conservation-restoration education bodies – Heritage Malta through its Institute of Conservation and Management of Cultural Heritage and the School of Conservation within the Royal Danish Academy of Fine Arts – have already translated the achievements of the ECPL project into tangible products, which observe the European standards created whilst responding to national/regional needs/differences. This academic year they have launched conservation-restoration programmes at different levels of higher education which are modelled on the ECPL’s EQF-based learning outcomes. These programmes are also based on the ECTS system and therefore facilitate student mobility. A similar handling of the results of the ECPL project across Europe would guarantee ease in mobility across European institutions providing education and training in conservation-restoration. However, the aspect of mobility facilitated by the results of the ECPL project is not only limited to that concerning students through the bringing down of geographical barriers. It also encompasses that of individuals whose knowledge, skills and competences would be acknowledged in the working world through a transparent and quality assured currency. This in fact is what the EQF is all about. It “acts as a translation device to make qualifications more readable and understandable across different countries and systems in Europe. It has two principal aims: to promote citizens’
mobility between countries and to facilitate their lifelong learning.”[16]

Amongst Europe’s targets in relation to the EQF is that scheduled for 2012 by when countries are to “ensure that individual qualification certificates bear a reference to the appropriate EQF level.”[16] This is to be done within the context of each country’s national qualifications system. Europe has therefore set challenges for education at large and the education sector specific to conservation-restoration has commenced its response. By conscientiously amending course curricula in conservation-restoration across all European Institutions of Higher Education through a shift from learning inputs to learning outcomes in order to make transparent what a learner knows, and has the ability and competence to do on completing the learning process, the European conservation-restoration education sector as a whole would be responding fully to the Bologna process.

Endnotes


13. In specialisations dealing with works of art the ability to proceed with the aim to reveal their spiritual and content value while applying the highest measure of respect to the originality and physical, historical and aesthetical unity and artistic form of works of art and ability to interpret the aesthetic value of an artwork.

