

PROPOSED COMPETENCES FOR THE PROFESSION AND PRACTICE OF CONSERVATION-RESTORATION IN RELATION TO THE EUROPEAN QUALIFICATIONS FRAMEWORK.

E.C.C.O. Working Group report No.1:

INTRODUCTION

This report from the E.C.C.O. Working Group on the European Qualifications Framework is the result of a continuing mandate given by the E.C.C.O. committee at the General Assembly held in March 2008. Since that date two meetings have been held in which proposed competences for the profession and practice of conservation-restoration have been developed and analysed as they relate to the European Qualifications Framework. Entry level competences and the proficiency of a person qualifying to use the title of Conservator-Restorer are proposed for Level 7; these equate to a Masters level qualification in accordance with E.C.C.O./ ENCoRE guidelines. The proficiency levels for competences at Bachelor degree and PhD are also suggested in order to complete the typical range of academic qualifications encountered within the field of conservation-restoration. These are equivalent to European Qualification Framework Levels 6 and 8 and also represent the goals to which an education programme should aspire.

In order to fulfil the mandate, the working group agreed the following principles during the initial stages of the work:

- Proficiency required to carry out conservation-restoration work, is defined/informed by current professional practice.
- Access to the profession begins at Level 7, and that the title conservator-restorer is reserved for Level 7 or above.
- Individuals work in the field of conservation-restoration but do not have the right to use the title conservator-restorer. Therefore it will be necessary for E.C.C.O. to consider the profile of knowledge, skills and competences for such persons.
- E.C.C.O. sees ENCoRE, together with education providers, as responsible for Learning Outcomes. It is E.C.C.O.s role to articulate the professional profile.
- E.C.C.O. sees the conservator-restorer as a specialist in the cultural heritage sector which includes many different participants and stakeholders. Each professional group will have specific roles within the field of cultural heritage.

The work presented in this report builds on these premises.

BACKGROUND

The Bologna Agreement, resulting from a meeting of the Ministers of Education of EU member states in June 1999, led to the establishment of a common European Higher Education Area (EHEA). Its aim is to improve the efficiency and effectiveness of higher education in Europe. What is now referred to as the Bologna Process unifies the European higher education structure and demands that each education programme is described in terms of the qualification it provides and its structures. The aim is to calibrate and make transparent the different levels and types of qualifications available in all third level educational institutions throughout Europe by 2010. It is therefore necessary for European bodies, such as E.C.C.O., to define the access requirements for their individual professional areas from which the levels and types of qualifications can be developed.

By 2010 all educational programmes must articulate their goals in terms of 'Learning Outcomes'. This reflects a shift in the delivery and appraisal of education from a teacher-centred approach to a student-based one that expresses the outcome of a course of study in terms of what the student is expected "*to know, understand and /or be able to demonstrate after completion of a process of learning*" (ECTS Users Guide)

The general Descriptors for Level 6, 7 and 8 as expressed in the European Commission document 'Towards a European Qualifications Framework for Lifelong Learning', were interpreted from a professional stand point.

*'Each of the reference levels in the EQF requires a description of what is distinctive about qualifications that are classified at that level'*¹. These are known as the Descriptors; expressed in terms of Learning Outcomes, they describe levels of Knowledge, Skills and Competences across 8 reference Levels.

Represented by a scale from 1 to 8, the last three steps represent what is commonly understood to be a 3 year Bachelor education programme (level 6), a 2 year Master programme (level 7) and a 3 year PhD research programme (level 8). As yet post doctorate and continuous professional development are not included in this scale.

A conceptual framework of competences has been constructed for conservation-restoration against which these Learning Outcomes; levels of knowledge, skills and competence required in order to carry out the duties of a conservator-restorer, are proposed.

THE LANGUAGE OF THE EQF

The Working Group explored the language of the EQF both in terms of the lexicography of the terminology; what is meant by Knowledge, Skill and Competence, and the way in which these terms are interpreted or used within the EQF to differentiate the proscribed levels.

¹ Towards A European Qualification Framework for Lifelong Learning, Commission of the European Communities SEC (2005) 957

Although enlarged upon below, it is also necessary to point out at this stage, that there is little difference in the use of the term Competences as used in the title and the term as it is used in the Learning Outcomes. From extensive reading of the document on the European Qualifications Framework quoted above, it would appear that the critical factor in relation to its use in the Learning Outcomes is as a measure of an individual's ability to deal with complexity, unpredictability and change.

As used by Working Group outside of the specific Learning Outcomes, competences are understood to refer to a combination of abilities, knowledge and skills.

Aware of the Descriptors for Levels 6 and 8, this document only offers an interpretation of the Descriptors for Level 7 reflecting the Working Group's progress to date.

At Level 7, the EQF requires:

Knowledge: Highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and /or research. Critical awareness of knowledge issues in a field and at the interface between different fields. (The European Qualification Framework for Lifelong Learning, European Communities, 2008:12)

The Working Group proposes that the conservator-restorer only attains *highly specialised knowledge* within the field of conservation-restoration after a period of relevant experience. The Working Group interprets *critical awareness of knowledge issues in a field* as the knowledge required to carry out actions subject to the conservator-restorer's own area of specialisation. This translates into a specialised knowledge within their Specialism/field, an advanced knowledge of conservation principles and practices within the fields that are adjacent to their Specialism, and a comprehensive knowledge of the cultural sector in general. A specialism can be both country- and culturally-specific and may change/evolve over time.

Skills: Specialised problem solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields. (The European Qualification Framework for Lifelong Learning, European Communities, 2008:12)

The Working Group interprets *specialised problem solving skills* to mean a level of ability informed by knowledge and ethics which is required to find solutions within the boundaries of the conservation-restoration profession. It includes an ability to observe, collect and critically analyse relevant information in order to reach appropriate conclusions and carry out a course of action; the ability to continuously analyse and evaluate the situation and the process in order to adjust where needed; the ability to recognise the opportunity to create new knowledge where it arises; the ability to communicate knowledge.

A proficient level of manual dexterity and sensitivity must be demonstrated in the field of specialisation which may also be transferable or shared between other specialisations within relevant fields. This equates with a cognitive ability to carry out familiar processes

within a given specialisation and which enables unfamiliar processes to be attempted. It includes a high level of familiarity with methods, materials, tools and instruments within the given specialisation and the ability to adapt and develop new tools and methods for that specialisation.

Competence: Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches. Take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams. (The European Qualification Framework for Lifelong Learning, European Communities, 2008:12)

The Working Group interprets the conservator–restorer to be competent when they have the necessary skills, knowledge and experience to operate in their specialist field within the ethical and practical boundaries of the conservation profession and the situation of the cultural heritage. This represents the ability to work consistently and responsibly, with appropriate caution within the field of conservation-restoration as whole and involves the application of knowledge and skills as represented earlier. It includes the ability to use conservation concepts, their principles and ethics in a variety of situations.

PROFILING THE PROFESSION

As Knowledge, Skills and Competences can be condensed and expressed respectively as ‘to know/understand’, ‘to do’ and ‘the combination of skill and knowledge combined with a appropriate attitude’, the question arises: what exactly does the conservator-restorer need to know and be able to do within their specialist field in order to be able to use the professional title?

This was answered by the Working Group through the profiling of actions that determine the nature of our work. This led to the development of a conceptual map which deconstructs the conservation-restoration process into a series of stages of engagement. These are based on a typical conservation process which evolves through the investigative stages leading up to direct intervention after which post-intervention processes are considered. They are presented diagrammatically as a central spine representing the steps of conservation from which the various activities involved in both conservation and conservation management branch.

The diagram is generic as it represents all areas of specialisation. It makes explicit the structure of approach in conservation-restoration work. The spinal steps represent:



Figure 1. The spinal steps

The conservation process (marked in blue) requires the following steps (marked in red):

- The first step or level of engagement which characterises the Start of the Process involves diagnosis of the problems. This includes an assessment of causes of alteration and the risks that the cultural heritage faces in its current situation.
- Which leads to the second step an assessment of needs which includes current use and planned future use.
- The third step involves the selection of conservation-restoration activities and the planning and organisation of actions/treatments. It includes consideration of, for example the desired results, level of intervention required, evaluation of alternatives, constraints on actions, stakeholder demands, risks and options for future use
- All of which requires planning and organisation including consideration of health and safety, legislation, insurance, project planning, finance and equipment and facilities
- The fifth and central step is the carrying out of a chosen course of action or treatment. Within this step there are the typical conservation restoration processes plus the management processes.
- The outcome of which is the conservation – restoration result. This includes evaluation of the change in risk, success of treatment or activity and communication of the results. It also includes identification of future actions requires to sustain the cultural heritage.
- The seventh step is the aftercare advice which is informed by the future actions that have been identified in the previous step. This may include a schedule of future works and guidelines for care and maintenance.

Each stage is considered to be governed by professional ethics and the imperative to document which may lead to the dissemination of new knowledge which as activities in their own right, are also evaluated. The sub activities can be added to the spinal steps, shown in the expanded conceptual model below (figure 2.)

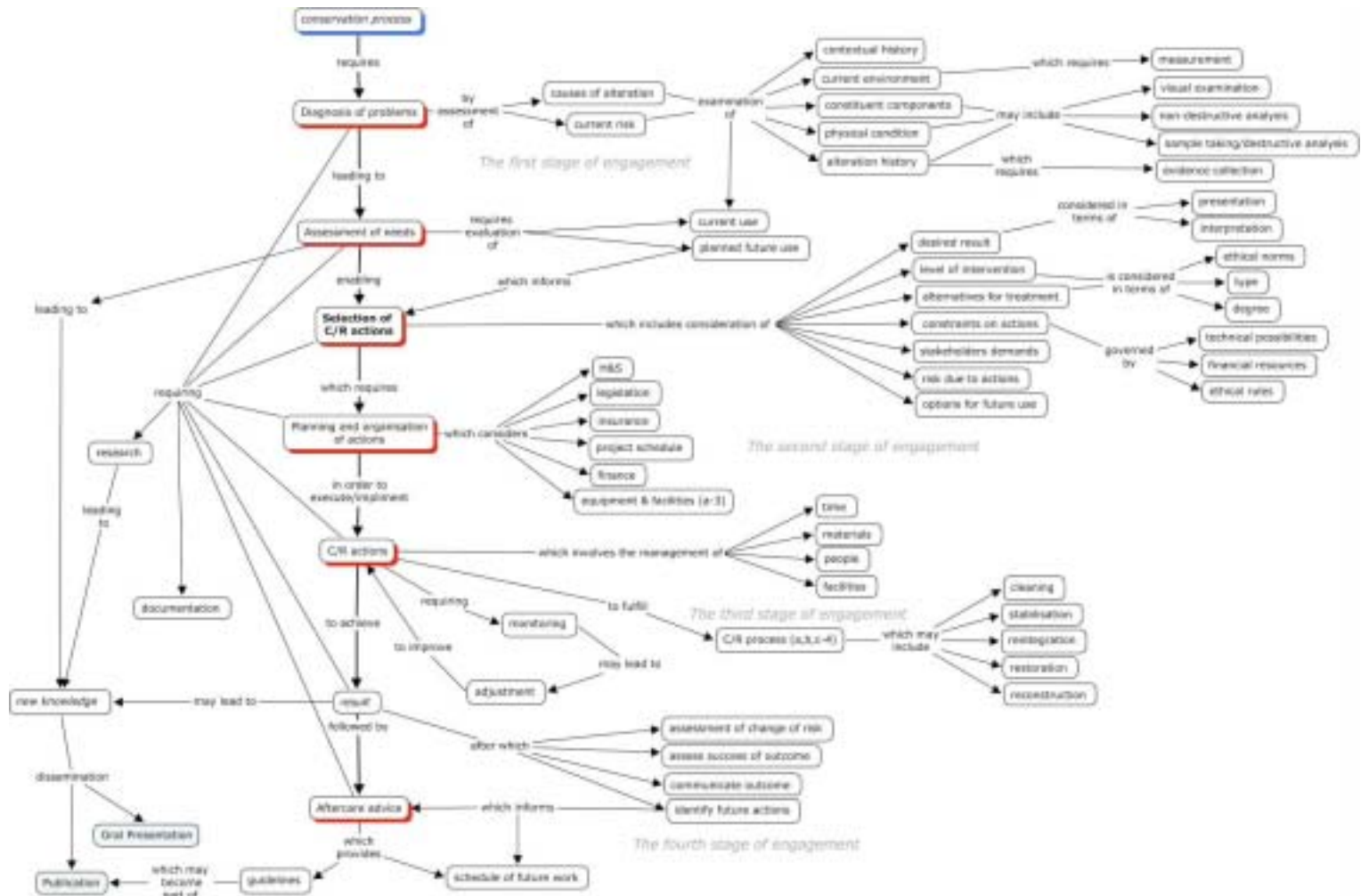


Figure 2. Expanded conceptual model

Evaluation of Knowledge

Having identified the activities of the conservator-restorer, all activities need to be evaluated or interpreted in terms of knowledge content, i.e., the amount of knowledge and the type of knowledge that the Working Group understands as being integral to professional requirements.

The Working Group used the taxonomy developed by Anderson and Krathwohl (2000) based on the original work by Benjamin Bloom (1956).

The following scale for cognition of Levels of Knowledge was used:

1. **Remembering** - to know something exists and where to find it.
2. **Understanding** – to be able to comprehend something in its context and make associations between things
3. **Applying** – to be able to use knowledge in an appropriate context in order to achieve a desired result in a predictable way.
4. **Analysing** – to be able to apply knowledge in a critical way using a level of awareness that allows one to explain the results – ie to reconstruct how the result was achieved. Decision making comes out of analysis. Analysis comes from an analytical approach but lacks experience.
5. **Evaluating** – to apply knowledge in order to measure a situation in terms of its broader context and in relation to determining future outcomes. This allows results to be weighed up in terms of decision making and a broader managerial context. Evaluation comes from experience.
6. **Creating** – a broad width of knowledge and experience which allows one to extend the boundaries of knowledge. This requires highly developed foresight and meta-cognitive understanding.

The Types of Knowledge were also classified as follows:

- A. **Factual** – of or relating to a piece of information presented as having objective reality
- B. **Conceptual** – of or relating to, or consisting of abstract or generic idea generalized from particular instances
- C. **Procedural** - of or relating to a particular way of accomplishing something or of acting
- D. **Meta-cognitive** – transcending (more comprehensive than) conscious intellectual activity – typically exhibited by an experienced practitioner.

In using these categories it is recognised that each Level assumes a development in learning behaviour arising directly from the preceding Level.

Each activity box shown in figure 2 was assessed and given a set of coordinates relating to its level and type of knowledge in the above classification systems.

In applying the proscribed levels of knowledge it became apparent that Level 7 had to be determined relevant to Level 8 not only within the scope of formal academic education but in recognition of the expertise that may be acquired following years of work and continuous professional development (CPD).

Evaluation of Skill.

The Level of Skill required to carry out the same activities was assessed in the same manner. Skill is generally defined as: the proficiency, facility, or dexterity that is acquired or developed through training or experience. It indicates a special ability or expertise enabling one to perform an activity very well

1. **Basic Skill** – only possesses the ability to carry out basic tasks in complex conservation – restoration processes. Unlikely to possess an in depth knowledge of any subject area required to carry out the task unsupervised and may not be aware of many of the ethical rules that apply. Operates well within the boundaries that are laid down by the profession

2. **Intermediate Skill** – possesses a higher level of skill both in terms of its breadth and depth. Expected to possess basic skills across the whole field of expertise, be able to place different concepts within that field, and to have knowledge of the rules. Is able to carry out basic conservation tasks unsupervised and work within a team on complex conservation problems.

3. **Proficient Skill** – expected to possess adequate skill to carry out conservation processes autonomously and understands the spirit of the rules that govern that field. Is capable of carrying out conservation tasks and processes to a level that is acceptable within the profession, but may not work as effectively as a conservator with experience and may not possess adequate skill to carry out the most difficult tasks.

4. **Expert Skill** – comprehensive ability to carry out tasks and undertake processes within their field of expertise. Able to also carry out tasks and undertake processes proficiently in associated fields. Be able to apply knowledge and the understanding of processes in a new and innovative way. Be able adapt and create new methods within the field of conservation-restoration.

Each level has been assigned the following colour coded on the strategic map.

Knowledge only = Uncoloured	
Basic Skills = Blue	
Intermediate Skills= Green	
Proficient/cognitive Skills = Yellow	
Expert/meta-cognitive Skills	

Starting with EQF level 7, the entry level into the profession of conservation- restoration, the level and type of knowledge together with the level of skill was identified for each of the sub-activity boxes. The results are presented below.

EQF LEVEL 7

The map (figure 3.) shows that the type of knowledge at this level is mostly conceptual (B) and procedural (C) and that the level of knowledge allows the practitioner to apply the knowledge (3) and analyse results (4). EQF Level 7 is therefore interpreted as working within the range of the application and analysis of the processes of conservation. The practitioner is not yet an expert in their field as their work is yet to become meta-cognitive. A person entering the profession of conservation-restoration rarely 'creates' new ways of approaching conservation problems. Whilst they possess sufficient critical awareness to change and adjust processes, they may only analyse the facts without evaluating the processes themselves.

Someone entering the profession with an EQF Level 7 qualification possesses a range of skill between intermediate and proficient/cognitive and that the greatest level of skill is where the conservator-restorer interfaces directly with the cultural heritage. The colour coding illustrates this very effectively on the map, the denser areas of yellow correspond directly to the conservation processes of analysis and treatment of the cultural heritage.

The organisation and planning related to conservation work requires an intermediate level of skill for professional good practice while an understanding of health and safety, legislative issues, insurance and finance and a basic level of skill in their application suffices in this category. It is recognised that management skills are not exclusive to the field of conservation-restoration but that basic skills are required.

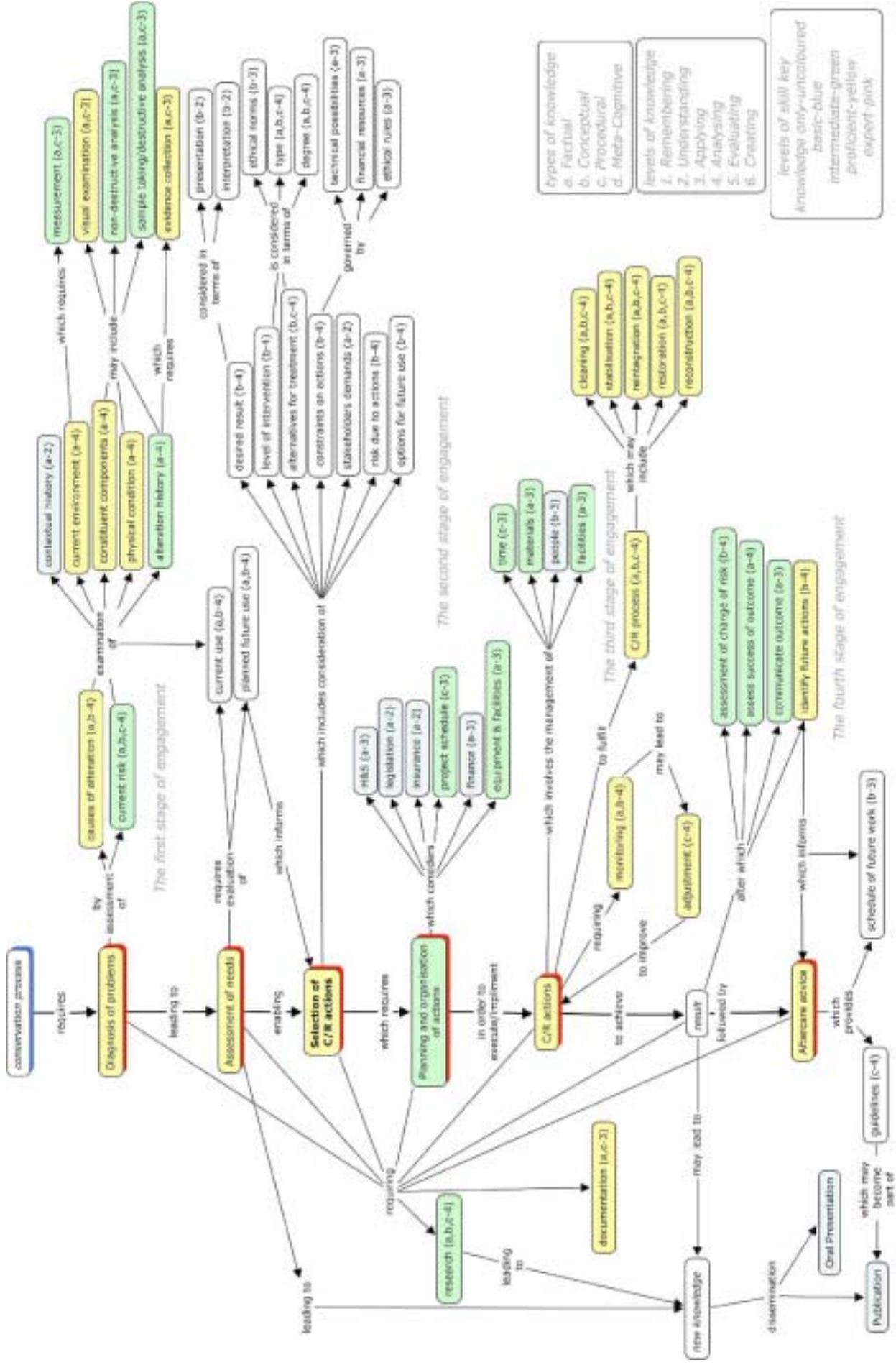


Figure 3. Level 7 knowledge and skills map

EQF LEVEL 8

Level 8 (figure 4.) recognises a considerable difference between evaluation and analysis and within the narrower scope of expertise that this implies. Evaluation presupposes experience and the ability to assess the validity and reliability of the analysis itself.

At Level 8 the skill of a practitioner increases within their particular field to an expert/meta-cognitive level. This is effectively illustrated by the colour coding. It must however be recognised that the field within which the practitioner operates will also shrink, so whilst they remain proficient in a broader field they have specialised further and become expert in a particular area. This is reflected by the types of Knowledge, which remains comparable and consistent with Level 7.

The exception lies within activities directly related to conservation-restoration interventions. At Level 8, a meta-cognitive level of knowledge has been acquired which is allied to an expert skill level. This is expected to lead to the creation of new knowledge. There is also an increase in levels of skill and knowledge at the diagnostic stage while the organisation and planning related to conservation work remains unchanged.

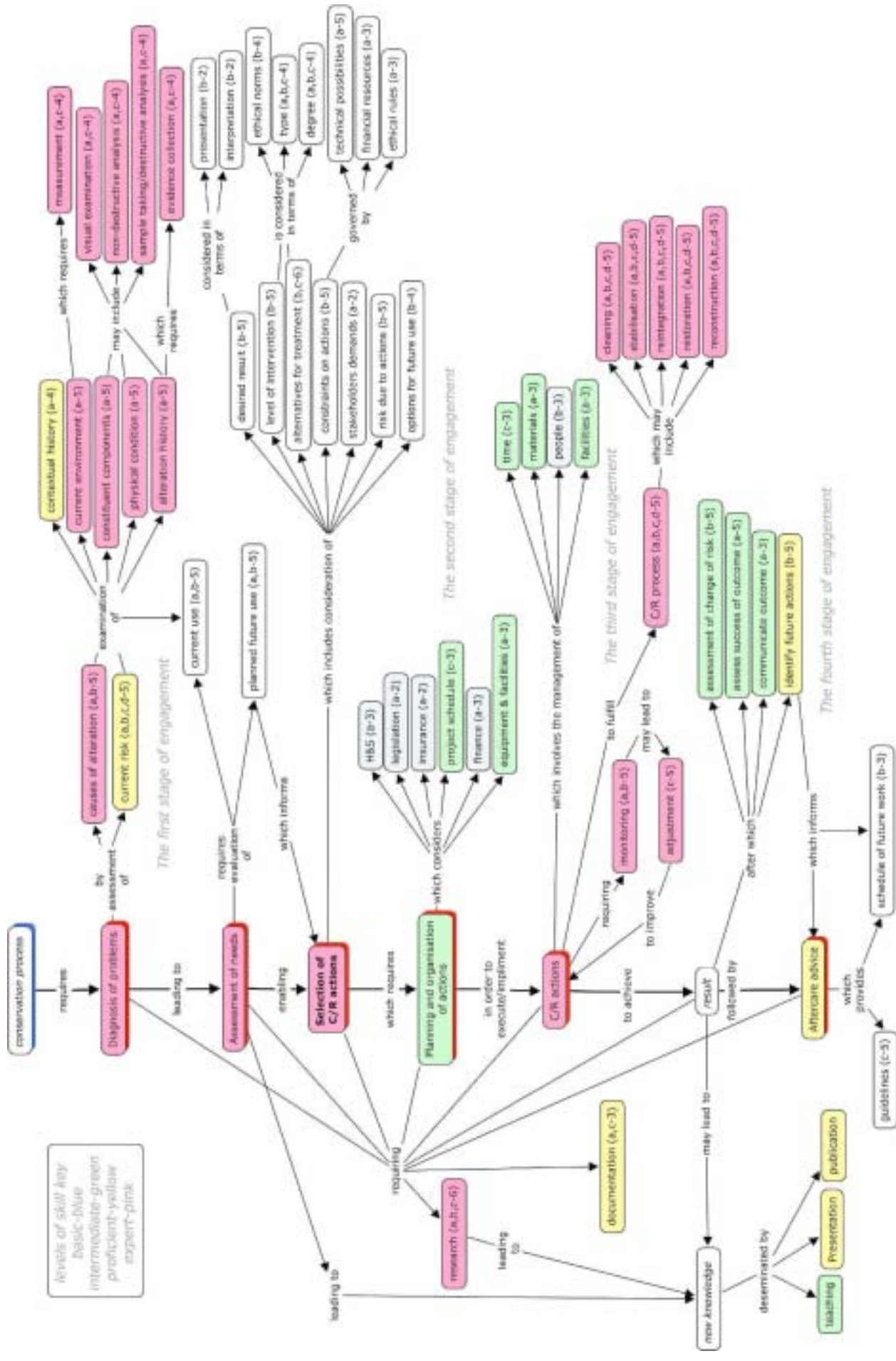


Figure 4. Level 8 knowledge and skills map.

EQF LEVEL 6

Level 6 (figure 5.) requires a level of knowledge which provides an understanding of the processes of conservation-restoration and seeks an intermediate skill base in their application. The emphasis, which is on intermediate skill, recognises the need for manual dexterity as a significant factor in conservation-restoration work. Critical understanding of the concepts and procedures leading to an assessment of needs and selection of conservation–restoration actions is under development but has not reached a sufficient level for autonomous decision making.

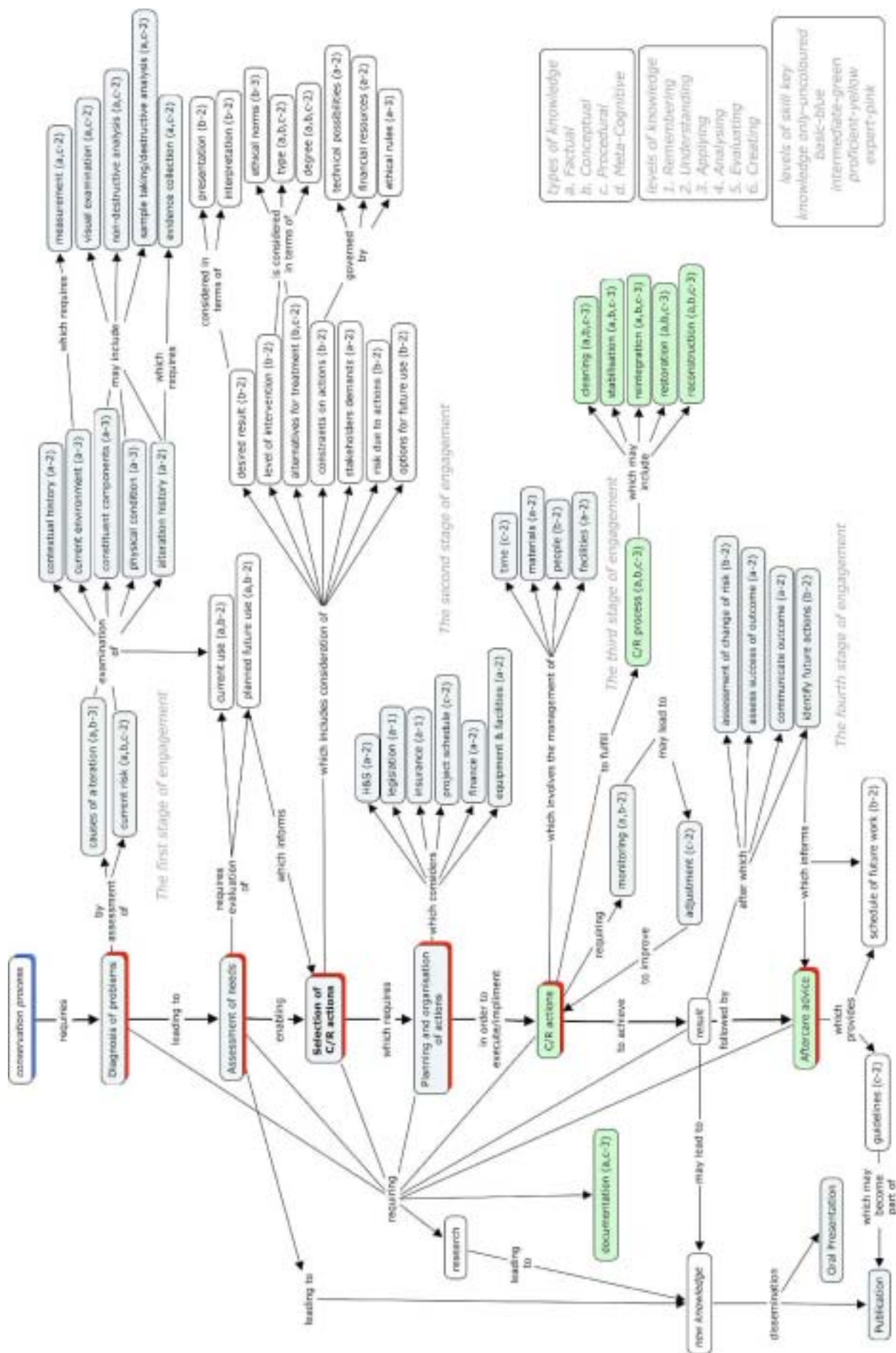


Figure 5. Level 6 knowledge and skills map

THE NEXT STEP

Following distribution of this report to the membership of E.C.C.O. it is hoped to present the interim proposals contained within it to the ENCoRE General Assembly in Paris this coming October. An example of a course and how it may be evaluated against the proposed competences for the EQF Descriptors may be drawn up.

We are anxious to receive feedback from member associations by January 2009 and all comment is welcome and necessary. It is hoped to finalise work on the document in time for the E.C.C.O. GA in March 2009 where it will be presented for ratification and subsequently to be presented to Mr Ján Figel, European Commissioner for Education, Training and Culture.

The Working Group will meet next in Paris to coincide with the ENCoRE GA, work will concentrate on interpreting the Descriptors more comprehensively for Levels 6 and 8 and to follow up on any comments and discussions arising from the distribution of this report. A word of thanks must go to FFCR who have kindly hosted the meetings of the Working Group for long hours over two weekends to date.

CONCLUDING COMMENTS

The E.C.C.O. Working Group acknowledges that the level of skill and knowledge required by a conservator- restorer for different aspects of their role may vary. There are many factors which combine to allow for expertise and indeed the maps may prove a useful tool for a conservator-restorer to assess his/her strengths. The Working Group proposes, however, that it is the combination of all these areas of competence, practiced at the correct level, which defines the nature of our work and confers its professional status. We feel that the articulation of these competences may assist in identifying the allied skills of other professions as they relate to the profession of conservation – restoration. We hope they aid in the delivery of educational outcomes and that they help to promote the development of further educational routes to the profession.

MEMBERS OF THE GROUP

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MEETING DATES and venues

17th and 18th May 2008, Paris

5th and 6th July, Paris 2008