

MODULE 2

Efficient team working and effective interdisciplinary conflict resolution

Authors

Karin Drda-Kühn - Kultur und Arbeit e.V.

Susanne Gill / Sascha Kolhey - Entwicklungsagentur Rheinland-Pfalz

Dietmar Wiegand - Institut für immobilienwirtschaftliche Forschung

Editors

Jermina Stanojev - Restrade Christer Gustafsson - Restrade















This training module is part of HERITAGE-PRO training scheme containing five training modules that have been developed within the Erasmus+ Strategic Partnership HERITAGEPRO - Interdisciplinary Training for Professionals of Different Disciplines Towards Sustainable Management and Preservation of Cultural Heritage. The training modules are available in English, German and Spanish.

A team of six public and private European institutions, networks, development agencies and associations – all linked to cultural heritage preservation - developed the training scheme focussing on interdisciplinary aspects in cultural heritage preservation. The training at a glance:

HERITAGE-PRO TRAINING SCHEME

Find out more HERE

Training Module 1
Global Challenges and
Opportunities in the Field
of Cultural Heritage

Training Module 2

Efficient Teamworking and Effective Interdisciplinary Conflict Resolution

Training Module 3
Valorisation of
Cultural Heritage

Training Module 4Participation

Training Module 5
Effective
Communication in
an Interdisciplinary
Environment



This work is licensed under a <u>Creative Commons Attribution 4.0 International</u> License.

You are free to:

- Share copy and redistribute the material in any medium or format.
- Adapt rearrange, transform, and build upon the material for any purpose, even commercially.
- The licensor cannot revoke these freedoms as long as you respect the following licensing terms.

Under the following terms:

- Attribution You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.
- No additional restrictions You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.

Notices:

- You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation.
- No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material.

Citation:

Drda-Kühn, K., Gill, S., Kolhey, S., & Wiegand, D. (2020) Efficient Team Working and Effective Interdisciplinary Conflict Resolution. In: Stanojev, J., & Gustafsson, C. (Eds.) HERITAGE-PRO Training Modules. https://heritage-pro.eu/wp-content/uploads/2020/07/HERITAGE_PRO_-Output-1_Module-2.pdf

5	2.0 ABOUT THIS TRAINING
5	2.1 KEYWORDS OF THIS TRAINING MODULE
6	2.2 TOPICS
6	2.3 CHALLENGES
7	2.4 REQUIREMENTS
7	2.5 LEARNING OUTCOME
8	2.5.1 KNOWLEDGE AND UNDERSTANDING
8	2.5.2 COMPETENCES AND SKILLS
8	2.5.3 APPROACH
9	2.6 SUMMARY OF UNITS
9	2.7 UNIT 1 - HOW TO MEASURE AND GUARANTEE PROJECT
	SUCCESS BY INTERDISCIPLINARY PROJECT MANAGEMENT
16	2.8 UNIT 2 - HOW TO MODERATE AN INTERDISCIPLINARY TEAM
19	2.9 UNIT 3 - HOW TO COME TO ALTERNATIVES WITHOUT
	LETTING ANYONE LOSE HIS/HER FACE - CONFLICT SOLVING
20	2.10 UNIT 4 - HOW TO HANDLE UNFORESEEN CHALLENGES
	FROM OUTSIDE THE TEAM
24	2.11 UNIT 5 - HOW TO MANAGE INTERDISCIPLINARY
	SUSTAINABILITY
26	2.12 EXERCISES
26	2.12.1 UNIT 1 - Exercise 1: Project placement – analysis of the environmental factors
26	2.12.2 UNIT 1 - Exercise 2: Developing problem-solving skills
26	2.12.3 UNIT 2 - Exercise 3: Organise your teamwork
26	2.12.4 UNIT 2 - Exercise 4: The "Top 5" of conflicts
27	2.12.5 UNIT 3 – Exercise 5: Check it out – project handbooks
27	2.12.6 UNIT 4 – Exercise 6: Feasibility studies
27	2.12.7 UNIT 4 – Exercise 7: Manage your risks
27	2.12.8 UNIT 4 – Exercise 8: Create an interdisciplinary risk plan
27	2.12.9 UNIT 5 – Exercise 9: Get inspired! Management plans and management systems
28	2.12.10 UNIT 5 – Exercise 10: Create your management plan!
28	2.12.11 UNIT 5 - Exercise 11: Interdisciplinarity check!
28	2.13 CASE STUDY: THE "CLIMATE FOR CULTURE" PROJECT AS A
	CASE STUDY FOR INTERDISCIPLINARY COOPERATION
29	2.14 ASSESSMENT
29	2.15 GLOSSARY
30	2.16 REFERENCES
33	2.17 THE HERITAGE-PRO PARTNERS: AN INTERDISCIPLINARY
	TEAM FOR SKILLS DEVELOPMENT IN CULTURAL HERITAGE
	PRESERVATION
34	2.18 ACKNOWLEDGEMENTS

ABOUT THIS TRAINING

As a professional in cultural heritage management, you have your background: You might be a cultural manager, an art historian, an architect, a geographer. You might also have a business administration or real estate management background. Or you are a craft entrepreneur with a Higher VET background in one of more than 80 craft trades active in cultural heritage preservation. Entering the "world" of cultural heritage and its related complex social, economic, and environmental processes, including different layers and technical and planning steps with its numerous specialists, stakeholders, and interests is a true challenge. Maybe you have to lead cultural heritage preservation projects, moderate the interdisciplinary team working, and you might have to resolve conflicts.

An interdisciplinary team has developed this training for interdisciplinary purposes in cultural heritage management. It is based on many experiences of the European partners to improve cultural heritage management further. This training is based above all on the insight that the cooperation of different professional groups in complex conservation projects is a great challenge, which receives far too little attention in the relevant courses of university education and professional training. Therefore, this training is conceived as further vocational training, giving you tools to use directly in your professional practice.

*** KEYWORDS OF THIS TRAINING MODULE

- Interdisciplinary team working
- Listening and discussing at eye level
- Trust building
- Conflict prevention and resolution
- Awareness of different roles
- Sustainability supported by interdisciplinary project management



Increasingly, preservation activities strive to serve the cultural, economic, social and environmental valorisation of cultural heritage following the general development in the sector from "preserve to use" of heritage assets. If we stick to the simple definition of this word, valorisation is "to give or assign a value, especially a higher value". But when it comes to cultural heritage preservation, this can be a complex term with different definitions in Europe. Therefore, the HERITAGE-PRO partners dedicated a whole training module to this term: "Module 3 - Valorisation of Cultural Heritage". Throughout the HERITAGE-PRO training, the authors have agreed that the term "valorisation" is understood holistically, reflecting the interdisciplinary approach of the whole training. Methodically formulated, this is a "systemic" approach. In Unit 1 of HERITAGE-PRO training Module 3, you will find more about this approach.

Valorisation of cultural heritage becomes more and more important. Cultural heritage sites, objects and practices are always unique in space, time and other framework conditions. Accordingly, each preservation activity of cultural heritage is developing a "prototype" with a unique set of organisations and competences implemented by interdisciplinary teams of different disciplines.

The right competences and organisations "around the table" and an appropriate project organisation are crucial for a successful cultural heritage project. A significant success factor is the **moderation of the interdisciplinary team.** Mainly because a heritage preservation team may include, e.g. cultural managers, art historians, architects, anthropologists, sociologists, urban planners, and organisational and entrepreneurial representatives of different crafts, sponsors, investors, financiers, hotel managers and various stakeholders like tourism experts, guides or citizens - all of them are, not only embedded in the projects but different organisations with organisations' specific tasks and cultures.

Within this Module, you gain social competences (emotional, cognitive and behavioural skills needed for successful social adaptation), process understanding and knowledge, and develop specific attitudes needed to successfully and effectively moderate a team working in an interdisciplinary project environment. You will also learn how to motivate different team members and enable them to perform together fast, efficiently and within the limited timeframe of a project.



In a team, you will initially be confronted with professional challenges such as diverse approaches, working cultures or opinions in different but work-related disciplines. Additionally, there are challenges in social interaction, such as different ways of communication, different approaches for trust-building mutual understanding or acceptance of other behaviours.

Whatever your professional background is, you will most probably like to learn about methods and tools

based on theories and models enhancing work in interdisciplinary teams. Knowledge and understanding of these theories are simplified in this module into easy to understand and use formats. This module will help you cope with challenges like creating a shared vision of the outcome of cultural heritage projects or clarifying goals, implementation steps, and deadlines. You will also learn how to lead a targeted discussion about suitable and sustainable future use of a cultural heritage asset (no matter if it is an object or a site), overcoming sometimes different opinions on the relevance of your discipline or discipline of your collaborators, creating

and accepting a role distribution and benefitting from the power of other disciplines.

However, many regulatory constraints need to be taken into account, which may vary from local, regional, national, and European levels. You will not change these yourself, even with the knowledge gained from our training module. However, it should already be promising if you involve the representatives of these (primarily public) regulations in an interdisciplinary and solution-oriented approach from the beginning.



- The following requirements include educational, professional and social aspects to follow and complete this module. You should have:
 - basic skills in project management
 - experiences in cultural heritage projects, e.g. by active involvement
- (bad or good) experiences in an interdisciplinary team working
- willingness to share knowledge
- interest to think out of your box
- self-confidence in your knowledge and willingness to expand it into other disciplines
- acceptance of other experts' expertise and opinions



After completing this training module, you will understand the importance of setting up an appropriate core interdisciplinary team for cultural heritage projects and gaining the skills to moderate the team effectively and resolve situations where compromise and consensus have to be reached. Conflicts have to be solved, handle unforeseen challenges from outside the core team and prepare interdisciplinary resemblance, understanding and working sustainability.

This module will improve your existing and develop new social skills as well as you will become aware of how to interact successfully in a respectful and objective-driven way, how to cope with criticism in a positive way, how to arrive at alternative solutions without letting anyone lose their aspect and how to feel comfortable in the team and make other colleagues feel comfortable as well.

2.5.1 KNOWLEDGE AND UNDERSTANDING

A team always encompasses people with specific knowledge, experiences and various social codes and even languages. These differences can be potential assets for a team if there are compelling discourse and common understanding from the accepted goal and objective of the group. Individual interactions toward a similar topic can be very different depending on professional background or personal ability. These attitudes are based on the knowledge, skills, interpretation, and reflection of the persons involved. Specifically, conflict resolution in multi- and interdisciplinary teams needs adequate instruments directed to inclusive team building rather than aspects of a single discipline. Adapting these instruments to a transdisciplinary community engaged in cultural heritage valorisation will be the main task in this module.

After this training module, you should

- have an improved knowledge of your abilities or deficits in moderating an interdisciplinary team or contributing to a team
- know and understand the attitudes necessary to moderate an interdisciplinary team
- realise ways to understand the perspective of other team members
- be aware of other discipline's values and contributions to the overall objective of a cultural heritage valorisation project
- know and understand different tools to achieve the goals in interdisciplinary cultural heritage projects
- recognise professional and social aspects essential for a cultural heritage preservation project
- understand the importance of methods and means of self-reflection.

2.5.2 COMPETENCES AND SKILLS

Every single member of a team brings in their competences and skills based on education, experiences, personality and behaviour. Ideally, they will complement each other in a common goal towards a successful cultural heritage project. After this training module, you should

- recognise competences and skills which you will have to develop and improve
- gain additional competences in reaching complex solutions under consideration of different approaches

- keep an eye on long-term defined goals
- learn to stick to solutions that a team has previously reached
- learn to bring in and discuss challenges that might arise unexpectedly
- be able to think in "creating synergies"
- be able to deal with and react to stressful situations or unexpected challenges
- be able to think towards creative "out of the box" solutions to overcome challenges
- know how to integrate team members with different attitudes

2.5.3 APPROACH

You can achieve the previously mentioned goals in various ways through different methods and instruments. Not all will be suitable for all cultural heritage projects, but you will quickly find out which

method and instruments are best suited for your project and which unique elements shall be considered. You will learn about

- co-creation methodologies which facilitate
 the work of interdisciplinary teams to develop
 processes of co-generation and transformation
 that decrease the participants' stress (dispersion)
 and increase the effectiveness (focus) of the work;
- instruments that strive to identify alternatives
 in case of conflict and develop conflicts into
 negotiated agreements in interdisciplinary teams;
- developing the transferability of the learned content.



The following 5 learning units will guide you through the most critical steps of successful interdisciplinary project management. You will learn

- How to measure and guarantee project success by appropriate interdisciplinary project management
- How to set up and moderate an interdisciplinary team
- How to avoid and stream towards solving conflicts in interdisciplinary teams
- How to handle unforeseen challenges developed outside the team and
- How to make interdisciplinary collaboration sustainable.

It is recommended to work through the learning units in the continuity of their sequence, as they build on each other and link to other learning units of this training. At the end of the units, you will find case studies from which you could get inspired by colleagues' experiences regarding the topics mentioned and what results they have come to. Exercises and assessment tools complement the training.

For each exercise, it is indicated:

- If the exercise is an "active" one, meaning that it entails "doing something" or a "reflective" one, which invites you to think further on a specific issue.
- If the exercise can be done alone, as an "individual", if it needs to be done in a "group", or it can work both for individuals alone and in a group.
- The estimated time to complete the exercise.

References to other literature and learning materials and a glossary at the end will deepen the overall understanding of the training topics.

2.7 UNIT 1. WHAT IS CULTURAL HERITAGE? A CONCEPT THAT INVOLVES A VARIETY OF STAKEHOLDERS

Project management is understood as the sum of all activities performed for the design, the steering and the development of purposeful socio-technical systems (Schalcher, 2007). There are numerous management methods, and probably you are aware of and familiar with

several. Maybe you have worked with some of them with more or less satisfying results. In this learning unit, you will gain insight into basic project management principles of "systemic thinking", which is regarded as an approach specifically suitable for cultural heritage related interdisciplinary projects. The following chapters provide basic information about:

- the principles (theories and methods) of systemic thinking
- the principles of systems engineering
- the principles of systemic management
- specifics concerning the management of interdisciplinary project teams

and how the application of the principles contributes to project success in cultural heritage valorisation.

Why systemic thinking is at present barely used and what it means

The term "management" today is understood - significantly influenced by the work of Gilbert Probst and Hans Ulrich from the University of St. Gallen (Schalcher, 2007) – as the sum of activities for design, steering and development of purpose and goal-oriented, sociotechnical systems. The system-oriented knowledge and approaches developed for the management of enterprises can be easily transferred to other systems, such as project organisations in heritage-related projects.

Its uniqueness, once-in-a-lifetime characteristics define a project. The temporary organisation has clear targets and restrictions in time, finances, personnel or others. A project in your case might be a conservation activity at a cultural heritage site, the revitalisation of a historic garden or the energy-efficient restoration of a historic building. Projects can be viewed, structured and treated from a systemic perspective, with a distinction at the highest level between the project itself and the project environment. The project environment can be subdivided into the general environment and the project-specific environment.

The general environment of a cultural heritage site includes the following aspects: *Infrastructural environment* (transport, electricity & water supply, accommodation, communication, health care, schools, shopping, etc.).

Physical - ecological environment (affects mainly the climate - temperature, humidity, rain, etc. - these factors influence the behaviour of people, machines, materials and products).

Legal - political environment (laws, regulations, standards, procedures, permits and institutions - political system, authorities and offices, courts - relevant to the project. The project field's general political and legal situation must be considered (e.g. strike, corruption).

Economic environment (economic situation, GDP, labour market, inflation, exchange rates, taxes, fees and donations).

Socio-cultural environment (structure and distribution of the population, educational level, religious and social institutions, cultural values and activities, gender issues, human rights, ethical values, working and leisure behaviour).

Technological environment (technology, research & development, the potential of innovation, technology transfer, education, etc.).

Meanwhile, the **project-specific environment** is determined by the following stakeholders and their quality factors:

Client/visitor (competence, organisation, procedures and decision-making: capacities, reliability, stability, image, ethics and creditworthiness of the client/visitor)

Suppliers (quality concept, availability and reliability; readiness to deliver, cooperation culture, image, relevant references, price, etc.).

Competitors (general competitive situation, competitive behaviour; quality concept, price transparency and stability; networks, professional associations).

Project Executives (project manager or project executive organisation, their existing competencies (knowhow) and capacities (management and production); corporate culture and strategy; leadership style, behaviour towards employees and partners; market knowledge, flexibility and mobility; innovation potential, image.

Suppose we are talking about cultural valorisation and the project development and management behind it. One of the critical factors and significant challenges is to bring the stakeholders to one table and raise their awareness for one standardised system. People who love culture and history and want to preserve their values might not get along and understand the business perspective of potential developers and vice versa. Finding the common language and common goals are essential to successful project management. The systemic approach and thinking can support that.

Your cultural heritage project further on points at relevant aspects: a) time situation, b) financial situation, c) performance situation (qualitative and quantitative) and d) resource situation.

These aspects are described by the open and fixed project requirements and are significantly influenced by numerous factors of the project environment. This systemic approach ensures that the relevant aspects and factors of a project are not disregarded. That applies to the project environment, which plays

an essential role throughout the project duration. In the following chapters, we will have a deeper look at systemic thinking, engineering and management, which theories are helping to increase the possibility of practical success.

The principles of systemic thinking - systemic management - designing systems

First of all, design means creating a socio-technical system (organisation, institution, etc.) and maintaining it as a **purposeful**, **actionable whole**. Socio-technical systems do not emerge by themselves but are created and operated by people for specific purposes. The task of designing is to select certain people and resources from the environment and **integrate them as elements** and components in a system that has the desired properties. However, the management as the design does not stop at the system's founding: its dynamics and the ongoing changes in the environment necessitate a periodic adaptation of the goals, elements and courses of action to preserve the system (in its whole).

Does this sound rather theoretical for you and difficult to transfer to the cultural heritage sector and your working environment? Hold on; you will soon understand why these "basics" are essential.

During the development of design models of sociotechnical systems, there are usually considerable difficulties to overcome; their **complexity** originates from such systems and their environment. From this point of view, design can also be understood as the "design of patterns" that reduces the wide variety of behaviour to purposeful and goal-oriented behaviours.

Complexity management is one of the critical challenges of interdisciplinary cultural heritage management.

A system has been built successfully if it can adapt to ever-changing environmental situations, which presupposes specific but previously not known behaviours. In return, this requires a greater variety of behaviour of the system and represents a requirement to reduce complexity by order. Therefore, a sociotechnical system must be designed to adapt and operate anytime within the short term to function with the required and optimal behaviours – adapted to the future state of the environment. **Complexity management** thus becomes a constant interplay of reduction and increase of variety, which keeps the system in a steady state with the environment.

Steering is the process of determining goals and defining, triggering and controlling purposeful activities of the socio-technical system or its components (subsystems) and elements. Steering in interdisciplinary cultural heritage projects is a function that must be exercised within the system so that it can fulfil its purposes through specific actions and achieve the goals set. In other words, steering means that the system selects and realises certain behaviours in a behavioural framework defined and delimited by design. It is not the system that acts, but the concrete activities are carried out through its components and elements. According to that, the components and elements of the system are the actual steering objects.

In traditional management studies, the **steering function** has often been equated with "leadership". However, this narrow view does not suffice for the systemic approach used here for cultural heritage. Naturally, the concept of steering is more comprehensive and based on cybernetics, can be subdivided into the three aspects of control, regulation and adaptation, with the two first being particularly relevant in the present context.

Control involves actively influencing a system from the outside to correct an emerging target deviation.

Control is the self-steering of a system feedbacking to a target. The control cycle includes:

- the message of the actual determined value to a control unit
- the determination of a possible deviation by comparing target and real value
- the automatic initiation of appropriate corrective actions.

Due to the dynamics of the environment and their own ability to learn, socio-technical systems are subject to a constant development process, i.e. structures, processes and behaviour are constantly adapted to new circumstances. Such development processes should not simply be left to themselves in a purposeful and goal-oriented system, but they must be consciously promoted and directed. In comparison to long-term processes, there are some peculiarities or difficulties for systems that are only temporary (such as a cultural heritage project organisation). The elements team members - must share team spirit and willingness to learn as part of the development. The system must react and adapt very quickly to the challenges in any circumstances. These socio-technical systems are dynamic and open as some elements are only part of the whole for a very short period. Due to the temporary structure, there is an existing risk for loss of knowledge. For that reason, the development process should be running in every project organisation and newly built system.

Besides the theoretical approach, it is not enough to mention repeatedly the importance of finding a common language among stakeholders in any cultural heritage development. That requires skilled people to coordinate and maintain the process.

The principles of systems engineering

Dividing a system into **phases of life cycles** enables a gradual planning, decision-making and implementation process. There are three main phases:

- the phase development is divided into a preliminary study, main study and detailed studies
- the phase realisation, consisting of system construction and introduction, as well as
- the phase utilisation with the reorganisation or decommissioning of the system.

Solving problems within the system and organisation can be challenging. There are **alternative dispute resolutions**, settlement procedures to reach the best possible results within an organisation.

The methods of dispute resolution can be divided into two main groups. While the disputes are handled by a third party (ordinary courts or arbitration), the second group aims to settle the disputes internally under its responsibility. The advantage of self-responsible methods lies in the self-directed, usually rapid, conclusive, and universally accepted settlement of disputes. In contrast, conventional dispute resolution often only starts after the project has been completed (e.g. in warranty claims in historic buildings) and thus misses out on the opportunity to resolve a conflict quickly, effectively and efficiently.

The principles of systemic management

Systemic management is the result of systemic thinking. In the following, we summarise the three main pillars of systemic management that you already know: design, steering, development.

Design means creating a socio-technical system (organisation, institution, etc.) and maintaining it as a purposeful, actionable whole. Socio-technical systems do not emerge by themselves but are created and operated by people for specific purposes. The task of designing is to **select certain people and resources from the environment** and integrate them as elements and components in a system that has the desired properties. However, the management as the design does not stop at the system's founding: its dynamics and the ongoing changes in the environment necessitate a periodic adaptation of the goals, elements, and courses of action to preserve the system.

As already shown above, steering is the process of determining goals and defining, triggering and controlling purposeful activities of the socio-technical system or its components (subsystems) and elements. Once again: Steering is a function that must be exercised within the system to fulfil its purposes through specific actions and achieve the goals set. In other words, steering means that the system selects and realises certain behaviours in a behavioural framework defined and delimited by design. It is not the system that acts, but the concrete activities are carried out through its components and elements. According to that, the components and elements of the system are the actual steering objects.

Development. Due to the dynamics of the environment and their own ability to learn, socio-technical systems are subject to a **constant development process**, i.e. structures, processes and behaviour are constantly adapted to new circumstances. Such development processes should not simply be left to themselves in a purposeful and goal-oriented system, but they must be consciously promoted and directed. In comparison to long-term processes, there are some peculiarities or

difficulties for systems that are only temporary (such as project organisation).

Specifics concerning the management of interdisciplinary project teams

A cultural heritage preservation project is all about teamwork. The success of a project depends essentially on the quality of cooperation within the project organisation, the team members. In the temporary project organisation (project team), the following exceptional situations and trouble sources can pop up:

- There is a real competition between the requirements of the project and the 'parent organisation', where the project team members were recruited from.
- The personal cooperation of the project team can only be influenced partially, to a limited extent.
- Because of the short, temporary existence of the project team, learning effects are challenging to realise.

Team moderation is a task of the project manager. Regardless of whether the project is the initiative of a public administration, a museum, archive or other collection, a foundation, a civil society organisation, or as is most common in heritage conservation - a private initiative, the project manager is best suited to

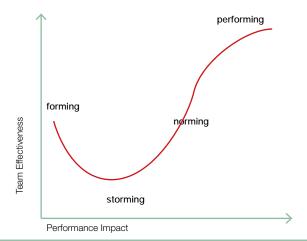
overall vision and overall responsibility. As a rule, project managers do not pursue particular goals within the project. If they do, such as private general contractors, the planning and execution departments of these specific tasks must work independently.

moderate the project team due to his/her leadership,

However, this favourable starting position for the project manager is not enough for a successful team moderation. The trusted person must have particular personal abilities, especially in the area of social competences, including:

- Psychological knowledge in human behaviour
- The capacity for communication and motivation
- Openness to new and unconventional developments/solutions
- Certain altruism (the common solution has priority, not one's own opinion).

Teamwork in cultural heritage projects does not work right away. It is a learning process of the group, always in the phases of "Forming", "Storming", "Norming" and "Performing". It is advisable to consciously plan and experience these phases in the interdisciplinary teambuilding process.



Forming	The team act as individuals and there is a lack of clarity about the team's purpose and individual roles.	
Storming	Conflict arises as people begin to establish there place in the team.	
Norming	There is a level of consensus and agreement within the team. There is clarity about individual roles. The role of the leader is important in managing this.	
Performing	The team act as individuals and there is a lack of clarity about the team's purpose and individual roles.	
	Adapted from Tuckman 1955	

It should be noted that the individual team members usually take particular behaviours which usually follow their material interest: Public administrations with control tasks can tend to adopt a more bureaucratic attitude, which cannot always be understood by entrepreneurial actors, who have to act flexibly under time, cost and competitive pressure. After a short time, roles such as the "innovative", the "know-it-all", the "keeper", the "critic", the "observer", etc., are appearing. This variety of roles and the resulting competition is a significant potential for the success of teamwork and must neither be negated nor suppressed.

Working successfully in an interdisciplinary team is characterised by the following conditions and behaviours:

- The problems and the set goals to be achieved are clearly defined, delimited and accepted by the whole team.
- The team size is adapted to the problem but never exceeds 12 people.
- The atmosphere should be relaxed and informal.
- All participants can express their opinion openly and are listened to.
- The discussions focus on the factual level of the problem.
- Any personal differences or group conflicts that arise are immediately taken up and brought to a solution outside of problem-solving.
- The moderator moderates the team and dominates neither the group action nor individual members.
- Decisions are made by consensus.
- The result of the teamwork is documented and submitted to all team members for final approval.
 Subsequent retouching is inadmissible because they torpedo the valuable effort in the team!

If these rules are adhered to by the entire team, they are the best prerequisites for successful teamwork. Then the team is different from a group or an unrestrained horde of dogmatists.

Possible ways to learn to apply and to adapt the principles

Besides gaining experience and learning from mistakes, knowledge management and reducing the risk of information loss are key to long-term developments. Gaining more experience can be reached not just by education, life-long-learning, "Do-It-Yourself", etc. methods, but by creating theoretical, imaginary situations and applying theory on them, gaining more learnings on your own.

During the following exercises, you can already apply theory to existing or imaginary situations. It is essential to list the learnings and use them in significant future situations.

Please go to Exercise 1 in Chapter 2.12: "The placement of a project – analysis of the environmental factors."

Please go to Exercise 2 in Chapter 2.12: "Developing problem-solving skills."

2.8 UNIT 2: HOW TO MODERATE AN INTERDISCIPLINARY TEAM

In this unit, you can reflect on moderating interdisciplinary collaboration to combine "the best of all disciplines". It often looks different. When things go wrong, it's usually not about ideals but about issues perceived as lifethreatening in one way or another. Projects are not carried out in a vacuum but under considerable (business) constraints, including staff responsibility, budgetary pressure, and the tension of (market) competition and, not infrequently, the competition of public responsibilities. It is essential that the project manager understands the material constraints under which his or her team members operate. A lack of knowledge about the abilities of people from other disciplines as well as different "languages" (in the sense of terminologies) and working styles can lead to acceptable solutions but not optimal from the point of view of all involved parties. Interdisciplinary collaboration is a challenge that has a high potential for conflict and brings with it many opportunities.

It is essential to distinguish multi-disciplinary or inter-professional:

- Multi-disciplinary: those from different specialisms working alongside one another
- Multi-professional: those from different professions working alongside one another
- Inter-disciplinary: those from different specialisms
 working with each other
- Inter-professional: those from different professionals working with each another
- Trans-disciplinary: specialists moving out of their discipline to form new roles and undertake alternative tasks

Crucial features of interdisciplinary teams:

- Different specialisms
- Different professional backgrounds
- Definition of common goals
- Mutual interdependence
- Flexibility
- Sensitive communication
- New ways of working

When setting up a team, keep the key team principles:

- To ensure empathy and eye level, each team member should recognise the well-being of the others.
- All team members should have a common understanding of cultural heritage and the values their work will maintain
- All team members have a contribution of the same value to make
- Professionals get to know about each other's works, strengths, interests
- Try to create a stable team without many changes
- The team is co-located in one office for all rather than in 'own' consulting rooms
- Team members are around for advice or to discuss their concerns regarding cultural heritage issues

Get the most of your team by considering the following steps:

 Diversity of professions within a team provides more significant experience and skills, which can result in more holistic and creative responses to the needs of cultural heritage

- Perceived equality in status and power between team members is important
- Leadership and coordination are essential for communication and cooperation within a team and in developing positive relationships with external teams
- Clear objectives provide a vision of what success (for both team and cultural heritage) will look like and for team members to understand the role of their contribution
- Provide supportive physical, technological, organisational and policy context in which an interdisciplinary team operates

Organising regular group discussions

In contrast to projects in which people from different disciplines work on other areas (meaning that they have different individual goals), interdisciplinary teams have common goals that they can only achieve together. To achieve common goals, procedures, methods etc., must be negotiated and agreed on between the representatives of the different disciplines. All involved parties need to be flexible and open to compromises and arguments. If this succeeds without conflicts, it can lead to existing methods being improved or even new solutions being created with the help of a shared pool of knowledge. Through close, interdisciplinary cooperation between different disciplines, the potential offered by an interdisciplinary team can be used to complete projects effectively, efficiently and successfully.

Therefore, reflect upon an interdisciplinary team that you are a member of

- Which of the necessary 'inputs-outputs-processes' are in place?
- Which ones were not clear?
- What development was provided?

Factors to consider when moderating an interdisciplinary team:

• Create the right attitude

The composition of an interdisciplinary team depends not only on professional background and experience but also on personality. Everybody must have an open, active, participatory and democratic attitude. Without it, the project could be in danger. Ego shooters are more likely to obstruct this.

Agree on a straightforward process

Teamwork is about effectiveness and profitability. The more guided and goal-oriented a work process is, the better it can be achieved. A good moderation, fixed meeting formats and a clear distribution of tasks help you moderate an interdisciplinary team.

• Break down familiar roles

The project manager or moderator must create the right conditions for open discussions, e.g. by breaking down existing roles. This is often done by working in a new team in which you do not yet know the others properly or take on a different position in the new composition. Role-plays can help: are you an art historian, for example? Then slip into the role of a craft entrepreneur with a staff of fifteen skilled labourers, his/her appreciation of the experience and his/her pursuit of quality and try to find out role-play what his/her motivation and interests are in your cultural heritage preservation project. If you are a craftsperson, slip into the role of an academic or scientist on his/her quest for truth and appreciation for erudition.

Ensure a transparent and sensitive communication

All participants should be involved in decision-making processes. However, this is not primarily a matter of codecision, but instead of communicating decisions and corresponding reasons, listening to and considering the team's concerns or suggestions. If one knows why, for example, certain features were omitted or information was placed at a particular position, these decisions are not questioned, discussed or even ignored by other contributors.

Sensitive communication is a unique way of communication that is strongly recommended in interdisciplinary teams. This way of communication is described in detail in the HERITAGE-PRO Training Module 5 "Communication" – have a look at the advantages of this kind of communication there!

• Work in a new, unfamiliar environment

Not always being in the same conference room opens up new perspectives. The team members do not stay in their ancestral territory but have to get out of their routine, making them more likely and open to thinking beyond one's nose.

• Break up hierarchies

If you break up hierarchies, it can help teamwork on problems together without assigning them to individual persons. To break up and balance different levels of hierarchies helps to work visually or with role plays. There exists a wide range of tools you can use to break up hierarchies. From simple collection and mind maps to strategic role play tools in which team members take on dreamers, realists and critics and thus view a project or idea from different angles. New ideas are

not assigned to an individual and can be the common outcome of a whole team. The project manager loses his/her leading role in such a context of role plays.

Use external moderators

As an external moderator, you can better capture certain personalities in the team - those who are extremely loud or those who prefer to hold back. An outsider can better leverage friendships or competitive relationships, create a shared understanding and establish rules of the game. Communication habits and unwritten laws do not apply because the outsider simply does not know them.

Please go to Exercise 3 in Chapter 2.12: "Organise your teamwork."

Please go to Exercise 5 in Chapter 2.12: "Check it out: project handbooks."

Please go to Exercise 6 in Chapter 2.12: "Feasibility studies."

2.9 UNIT 3: HOW TO COME TO ALTERNATIVES WITHOUT LETTING ANYONE LOSE HIS/HER FACE - CONFLICT SOLVING

In this learning unit, you will recognise situations that you are guaranteed to have already experienced. It is about conflict situations that you have already been exposed to yourself or have (unintentionally) brought others into. That can happen very quickly in interdisciplinary teams, without any bad intentions, because your constraints and your own discipline's approach are in the foreground of your thinking. The actions or suggestions of representatives of other disciplines are initially unknown and unexplored fields. So what is the best way to deal with them or even, better, to avoid them happen?

Conflicts can always arise for technical and interpersonal reasons. Interdisciplinary forms of work are particularly vulnerable to conflicts because of different implementation, sustainability and work processes that have to be balanced. Sometimes there are also interests of colleagues/team members who have nothing or little to do with the actual task but are driven by particular interests.

Conflicts are not per se negative for a work teamsometimes, they set innovative processes in motion that benefit an entire team. Every conflict should be an occasion to generate something positive for the project and its participants, e.g. new or deepened knowledge, better understanding of advantages or disadvantages of another approach, practical necessities, ongoing research on a relevant topic, and dependencies of other disciplines.

Sometimes, however, it is difficult to think in terms of alternatives, especially when a suggestion, e.g.

- is formulated aggressively ("You can't be serious!")
- degrades the expertise of colleagues ("They represent methods whose effectiveness has long since been refuted").
- is formulated as an exclusion criterion ("Only under these circumstances can I support the next work step.")
- is linked to demands ("If we are to agree on this, I would also like to see my proposal from yesterday accepted.")

Nobody likes to be less respected, especially in front of colleagues. The best thing is not to always let conflicts arise in the first place, therefore:

- At the beginning of your project, communicate clearly with all participants on the goals and implementation steps. That may take some time, but it is well invested time in terms of preventive conflict avoidance.
- Create a project handbook that defines the structure of dealings with each other. It will not only record which milestones the project has, which results in it will produce and which deadlines must be met. Instead, it should also state how the team wants to treat each other: respectfully, openly, discursively, in a spirit of partnership.
- Agree on risk management by identifying risks in advance and agreeing on dealing with them in the partnership (see Unit 4 below).
- Define the type of communication: Which instruments do you want to use and when?
 WhatsApp, e-mails, telephone contact, Skype sessions, Webinars, regular meetings?

- Create space for informal exchange and getting to know each other: This can be a weekly / monthly Jour Fixe, a joint event, a joint dinner or a study trip to another restoration project.
- Consider external reviews of your results: e.g.
 done by an external institution or an advisory board
 of your project. This kind of approval gives you,
 as manager, security and all other stakeholders'
 satisfaction with the results.

As a manager, do not allow that anybody in the team is less respected by the disrespectful behaviour of others. Sometimes it requires an open talk; sometimes, it requires bilateral meetings before important rounds of discussion. That is not the most comfortable part of your work, but part of your responsibility as a manager. And last but not least: Be patient with your colleagues. Better ask two questions than one. Keep in mind that everyone at your roundtable can have different professional backgrounds and a different mindset. But in the end, you have a common goal, identified in the project handbook – this will help a lot in case of disagreements.

Please go to Exercise 4 in Chapter 2.12: "The 'Top 5' of conflicts."

2.10 UNIT 4: HOW TO HANDLE UNFORESEEN CHALLENGES FROM OUTSIDE THE TEAM

According to the general understanding, successful management of teams and projects refers to planning, control and monitoring. That also includes the goal to overcome and eliminate uncertainty and unforeseen challenges as far as possible. Uncertainty and unforeseen challenges appear to be an obstacle and a threat to the successful management of interdisciplinary teams. As a heritage manager, you are well aware that unexpected preservation activities are the rule rather than the exception. Learn more about the handling in this unit.

Not only conflicts may cause a severe threat to your project. There are always risks and unforeseen challenges that could become an obstacle for your project implementation. In general, one can say: The longer the duration, the higher the risks for the appearance of unforeseen challenges of your preservation project.

Handling unforeseen challenges is best possible if you try from the beginning to identify them and prepare the handling of these challenges as far as possible. Although you will always have unknown factors, the following approach can help you to minimise the effects of possible challenges by preparing for the case they will become real. Always keep in mind that challenges highly depend on the specific subject, conditions, involved actors etc.

1. Identify possible risks and challenges

As a first step, you need to think about all possible risks and challenges that you could experience. Think of specific aspects of your plan and the environment that could change. Name them as concrete as possible. Include all members of your team.

Core questions:

- What can go wrong?
- What dangers could appear?
- What external factors could influence our project at what stage of the project?
- If you already have experience in comparable fields and projects: Where have problems existed before?

2. Assess the risks

Once a collection of risks and challenges has been compiled, the second important step is to assess them. The purpose of this assessment is to identify the crucial risks as not all threats endanger your project equally. As a result, it is essential to concentrate on the most threatening risks and challenges. Consider as well the impact on other possible hazards.

Core questions:

- What is the probability that the risk/challenge will occur?
- What damage will there be if the risk/challenge occurs?

3. Develop a strategy

Ideally, you will find that some risks exist, but they are not very likely to occur or cause much damage. You should deal with these risks differently than with really threatening dangers. That is the reason why it is helpful to use different strategies for different risks.

Core questions:

- What risks do I want to avoid?
- Which risks do I want to reduce?
- Which risks do I want to transfer?
- Which risks can I accept?

4. Define appropriate measures

Risks that you are **not willing to accept** should be addressed with appropriate measures. Your objective is to 1. Avoid 2. Reduce or 3. Transfer possible risks and challenges.

Core questions:

- Avoiding: Which measures can I use to reduce the probability of the risk occurring?
- Reducing: What measures can I take to minimise the damage if the risk does occur?
- Transferring: How and to whom could I transfer risks/challenges before they happen?

5. Implement the countermeasures

If measures have been defined, they should be implemented. It is often helpful to develop and establish separate work packages for their risks.

Core questions:

- In which work packages are the measures going to be implemented?
- Who is responsible for the implementation?

6. Assess the impact of the measures

To ensure that your measures are effective, you should check and evaluate the measures to verify that you eliminated or reduced the risks and challenges.

Core questions:

- Were the defined measures implemented?
- Were the measures taken successful?
- Could risks be reduced or avoided?

7. Monitor risks

You should not forget to regularly look at all the defined risks and check whether new risks could make it necessary to take further measures.

Core questions:

- Has the assessment of risks changed?
- Have new risks emerged?

Please go to Exercise 7 in Chapter 2.12: "Manage your risks."

Cultural heritage in danger

In the last chapter, we looked more closely at the operational management of risks. Let us now look at risks that are not only beyond your sphere of influence but which have a global dimension that can have massive consequences for the preservation of your cultural heritage site and which cannot be managed without interdisciplinary cooperation.

We are currently seeing a growing awareness of which crises pose a particular risk to preserving cultural heritage. On the one hand, this may be related to a new crisis awareness resulting from the COVID-19 pandemic. Still, it is more likely that societal discussions such as the dangers of climate change will gradually reach cultural heritage managers.

The World Economic Forum records risks in the world every year and has thus created a system of indicators in developing global risks¹. Economic, environmental, geopolitical, social and technological risks are recorded and evaluated compared to previous years. Although the Global Risks Report does not directly relate to cultural heritage, it is astonishing to understand how many of the risks mentioned are directly related to cultural heritage management. The Global Risks Report 2020 identifies the risks as follows²:

The Global Risks Report 2020, Descriptions of Global Risks 2020

Environmental

Asset bubbles in a major economy

Deflation in a major economy

Failure of a major **financial** mechanism or institution

Failure/shortfall of critical infrastructure

Fiscal crises in key economies

High structural **unemployment** or underemployment

Ilicit trade (e.g. ilicit financial fows, tax evasion, human traffickling, organized crime)

Severe **energy price shock** (increase or decrease)

Extreme weather events (e.g. floods, storms)

Failure of **climate** - change mitigation or adaptation

Major **biodiversity loss** and ecosystem collapse (terrestrial or marine)

Major natural **desasters** (e.g. earthquakes, tsunamis, volcanic erruptions, geomagnetic storms)

Human-made environmental damage and **disasters** (e.g. of spills, radioactive concetration)

¹ http://www3.weforum.org/docs, accessed May 31st, 2021

² http://www3.weforum.org/docs/WEF_Global_Risk_Report_2020.pdf , 99ff; accessed May 31st, 2021

The Global Risks Report 2020, Descriptions of Global Risks 2020

Failure of national governance

(e.g. failure of relu of law, corruption, political, political deadlock)

Failure of regional or global governance

Interstate conflict with regional consequences

Large-scale terrorist attacks

State collapse or cities (e.g. civil conflict, military coop, failed states)

Waepons of mass destruction

Failure of urban planning

Food crises

Large-scale involuntary migration

Profound social instability

Rapid and massive spread of infectious deseases

Water crises

Societal

Adverse consequences of technological advances

Breakdown of critical **information infrastructure** and networks

Large-scale cyberattacks

Massive incident of data fraud or theft

(Graphics: WEF Global Risk Report 2020)

Many cultural heritage institutions have risk plans, but primarily they don't refer to the risks identified above but cover local contingency plans, e.g. for evacuation or first aid services. However, from an interdisciplinary point of view, it is appropriate to review existing risk plans,

- whether they need an update due to new findings on risks,
- how prevention measures can be adapted to the individual cultural heritage site,
- whether and how cultural heritage sites should participate in risk management of a city or region,
- whether and how cultural heritage sites can be developed as part of the solution and not only as part of a problem; and
- which disciplines are needed in preventive cooperation?

Therefore, the following actions with a solid interdisciplinary approach are recommended³:

 Offering innovative training courses (e.g. seminars, lectures) to strengthen commitment and communication skills for professionals from different disciplines, mediators and policymakers involved in your cultural heritage site;

Technological

- Avoid duplication of work through continuous exchange with relevant on-site facilities,
- Building knowledge and capacity, especially of a digital nature, to benefit from the information and scientific knowledge;
- Guidance for all actors directly or indirectly involved (i.e. staff of your institution, managing authorities, regional authorities, representatives of civil society and local communities, private sector, experts)
- Guidance on the development and implementation of evidence-based evaluation processes,
- Integrating traditional professions and skills in the field of cultural heritage that is at risk and, more importantly, co-developing new cultural heritage professions;
- Consideration of non-formal knowledge and skills, such as orally handed down.

³ The recommendations are based on a presentation by Jermina Stanojev at the HERITAGE-PRO conference "Risk Management – from Climate Change to Covid-19 – Future Challenges in Interdisciplinary Cultural Heritage Management" (May 5th, 2021): https://heritage-pro.eu/heritage-pro-german-multiplier-event-in-cooperation-with-the-organisation-of-world-heritage-cities/; accessed May 31st, 2021

2.11 UNIT 5: HOW TO MANAGE INTERDISCIPLINARY SUSTAINABILITY

The sustainable preservation of cultural heritage sites is an ongoing issue everywhere in heritage preservation and conservation. Many countries and institutions have already developed efficient instruments for this purpose; for example, the Dutch "Monumentenwacht", whose proven concept of preventive conservation has already set a pattern far beyond the Dutch borders and has found numerous replicators. However, the following unit will deal with sustainability, especially with the sustainability of interdisciplinary collaboration, which is a particular challenge.

In your interdisciplinary preservation project, you will perceive sustainability by a holistic approach combining heritage-related, cultural, economic, ecological, and social aspects. This interaction is called "valorisation" in our learning units. You will find more about this term in Unit 1 of the HERITAGE-PRO Training Module 3 ("Valorisation of Cultural Heritage"). The integrative consideration of cultural, economic, ecological and social dimensions is increasingly becoming an essential component of sustainability management in many cultural heritage institutions. For a sustainable interdisciplinary approach in your institution, we recommend that you first define an appropriate model for sustainability.

You may already have a **mission statement** of your institution. If not, you should consider creating such a mission statement in the course of or after the completion of your preservation project. Based on your interdisciplinary experience, you can develop strategies to implement sustainable behaviour to preserve a cultural heritage site. Climate change is one of the most significant challenges facing your institution, and its far-reaching consequences can only be tackled with a sustainable and interdisciplinary approach. For example, the sustainability goals of the United Nations, the European Commission and the Paris Climate Convention in the cultural heritage sector have been defined. They will be accommodating for you to formulate them for your institution and all projects.

Securing cultural and natural resources and passing them on to future generations is the fundamental objective of the **UNESCO World Heritage Convention** adopted in 1972. In addition, the General Assembly of the States Parties to the World Heritage Convention adopted guidelines for the integration of the concept of sustainability in 2015. The central concern is to combine the protection of World Heritage sites with sustainable economic development and social justice and ensure that future generations have the same chances of a fulfilled life as of today's generations. You can learn more about this in our training Module 1.

Management plan and management system

What has been mandatory for UNESCO world heritage sites since 2014, could also be an example for your cultural heritage site: management plan and management system.

A management plan is an integrated planning concept for preserving the value of a cultural heritage site. It explains the legal instruments, objectives and measures with which protection, maintenance, mediation, use and development are to be realised. These are the building blocks of a management plan:

- protective measures through laws, other regulations and contracts
- setting limits for adequate protection
- buffer zones
- an established management system
- sustainable use.

On the other hand, a management system describes administrative structures, responsibilities and procedures, ownership, and coordination of all actors.

The development of management plans and management systems is in line with an interdisciplinary approach. There is no template for this, but existing management plans can be used as examples. A good example is the management plan of the Roman Antonine Wall, which we recommend for further reading. This document maps out a five-year plan for the management and conservation of the Antonine Wall, part of the Frontiers of the Roman Empire World Heritage site in Scotland.

Find your path!

If you follow *Exercise 9* of this unit, you will find out how different management plans can look like, as they are highly individual instruments. You shall be concerned with the question of where you will set your priorities and which partners you will need. If, for example, you decide to access different aspects of your cultural

heritage site for tourism, you will have diverse partners to ensure access to mobility, visitors, funding, regional planning and much more. There are many instruments for implementing a management plan, which we have already discussed in detail in the previous learning units.

Sustainability always requires a long-term approach; you define the period in your management plan. Sustainability instruments are, for example:

- The establishment of your network according to your focus (tourism (e.g. conference tourism), climate change, health and well-being...),
- The foundation of an external circle of friends,
- The establishment of a technical advisory board,
- Cooperation with universities and centres of VET and Higher VET,
- The development of a training program for your employees.

Some of these instruments you certainly know or already have. But do they already reflect an interdisciplinary approach? Our Exercise 10 will help you to become clear about them.

Please go to Exercise 9 in Chapter 2.12: "Get inspired!

Management Plans and Management Systems"

Please go to Exercise 10 in Chapter 2.12: "Create your Management Plan!"

Please go to Exercise 11 in Chapter 2.12: "Interdisciplinarity check."



Please find below all the exercises which were already indicated in the units.

2.12.1 UNIT 1 - Exercise 1: Project placement - analysis of the environmental factors

Active - Individual or Group - around 4 hours

Take a favourable, undeveloped (=have not considered yet for valorisation) cultural site and develop a basic environmental mapping for the general and project-specific environments. Before you start, list your expectations and ideas of valorisation for the project. After that, compare these points with the learnings from the environmental analysis. How much has your project altered between the first idea and the environmental analysis?

2.12.2 UNIT 1 - Exercise 2: Developing problem-solving skills

Reflective - individual - around 3 hours

Solving problems within the system and organisation can be challenging. Take a substantial dispute from your past job experiences or your current organisation, go through it from different perspectives, and analyse the situation with other dispute resolution methods. List the possible, various outcomes from the best to the worst. This theoretical training can help you to solve problems in similar future situations.

2.12.3 UNIT 2 - Exercise 3: Organise your teamwork

Reflective - individual - around 4 hours

Your interdisciplinary team needs to have clear processes to facilitate the joint work.

Please draw an organisation chart of a team and its members for a project of your choice and allocate each member specific roles, responsibilities and indicate the relation between the team members. Define the processes each role needs to fulfil and consider that the team members have different professional backgrounds. Where could there be conflicts within the team? How could these conflicts be solved/avoided? Would it be possible to switch the role of some members to break hierarchies?

2.12.4 UNIT 2 - Exercise 4: The "Top 5" of conflicts

Reflective - individual - around 1 hour

You certainly already have experience of what kind of conflicts can arise in managing preservation measures for cultural heritage sites. Write them down in the order of their frequency - what does your "Top 5 list" look like?

2.12.5 UNIT 3 - Exercise 5: Check it out - project handbooks

Active - individual or group - around 4 hours

You will find numerous samples of project manuals on the Internet or in specialised literature. But how do they already consider the interaction of different disciplines? Research 2 - 3 such project manuals and evaluate them for their interdisciplinary relevance!

2.12.6 UNIT 4 - Exercise 6: Feasibility studies

Active - individual or group - around 4 hours

If big projects are planned – whether linked to cultural heritage preservation or not - it is common to conduct a feasibility study to check whether a project is feasible and what it needs to make the project objective. Feasibility studies usually consider risks and possible solutions for the handling of these risks. You will find a lot of examples for feasibility studies online. Research such a feasibility study and analyse how risks are identified and how these risks could be eliminated and dealt with.

2.12.7 UNIT 4 - Exercise 7: Manage your risks

Reflective - individual or group - around 2 hours

Imagine a project of your choice that you are planning to realise. Take the before-mentioned feasibility studies in *Exercise 6* as an example and conduct the risk management described in Unit 4 for your project. Answer especially the core questions step by step.

2.12.7 UNIT 4 - Exercise 8: Create an interdisciplinary risk plan

Reflective - individual or group - around 4 hours

Research the risks already taken into account in your cultural heritage site, whether there are contingency plans, which risks identified annually by the World Economic Forum are already covered. Now find out which disciplines you need to cope with.

2.12.8 UNIT 5 - Exercise 9: Get inspired! Management plans and management systems

Reflective - individual - around 4 hours

Research what management plans and management systems already exist in your country for cultural heritage sites. A publication on the Internet is usually a sign that its authors have dealt intensively with the topic and that transparency is essential. Evaluate these plans based on your interdisciplinary experience.

2.12.9 UNIT 5 - Exercise 10: Create your management plan!

Active - individual or in a group - around 6 hours

Create the content structure of your management plan. Consider what an interdisciplinary approach might look like in the individual chapters: Whom do you need to involve for successful execution? Choose a topic that could be your main focus and play it through in your draft.

2.12.10 UNIT 5 - Exercise 11: Interdisciplinarity check!

Reflective - individual or group - around 2 hours

Check your existing accompanying instruments (e.g. checklists, schedules, defined coordination channels, communication lists) for their interdisciplinary orientation. Do you find all those disciplines in it that help to ensure the continuity of your work?

CASE STUDY: THE "CLIMATE FOR CULTURE" PROJECT AS A CASE STUDY FOR INTERDISCIPLINARY COOPERATION

During the years 2009 – 2014, one of the most challenging European projects in cultural heritage preservation was implemented by a truly interdisciplinary team: "Climate for Culture". The interdisciplinary team of 29 institutions from 16 European countries from research and economy and social sciences identified the damage potential of the cultural heritage most at risk to encourage the development of strategies to mitigate the effects of climate change. The project used simulation and modelling tools to better predict the influence of the changing outdoor climate on the microclimate in historic buildings until 2100 and assessed these future microclimates' damage potential on art collections in various climate zones.

www.climateforculture.eu (as of May 6th, 2020)



- With this training module, you can learn in three different ways:
 - 1. You can work through the entire module as a self-learning course by first acquiring the content and deepening it with the exercises and case study provided. In this case, the exercises serve as a review and self-reflection of your learning success.
 - 2. You can work through the module together with colleagues, for example, by acquiring the content of all

- or single training modules over a pre-defined period and exchanging information in regularly recurring discussion rounds, giving each other feedback on the exercises.
- 3. A third possibility is that you work through the modules with a professional trainer engaged by your institution as part of an internal training measure. All institutions that have participated in developing these modules are listed at the end of the module and offer the training as a service.



- Interdisciplinary multi-disciplinary interprofessional - transdisciplinary? Check the differences in your working environment:
 - Multi-disciplinary: those from different specialisms working alongside one another
 - Multiprofessional: those from different professions working alongside one another
 - Interdisciplinary: those from different specialisms working with each other
 - Interprofessional: those from different professionals working with each other
 - Transdisciplinary: specialists moving out of their discipline to form new roles and undertake alternative tasks

Valorisation

The term "valorisation" is understood in a holistic way reflecting the interaction of cultural, economic, environmental, social and sustainable factors for the preservation of cultural heritage. In Unit 1 of HERITAGE-PRO Training Module 3, you will find more about this approach.

Systemic approach

As a result of the project management, the project manager will fulfil the customer's wish – whether the "customer" is the public sector, a private owner or an investor. That must conform to the sound quality or performance, on time and within the defined budget. The only way to do this is to use a systemic approach that holistically considers many different aspects.

A consistent approach reduces the risk of failure and gives confidence to the project team via well-defined project objectives, improved estimating, consistency for monitoring and control. The systemic approach provides consistency in project control; it is the best method of ensuring nothing is missed when plans are put together.

2.16 REFERENCES

Initiatives

Forschungsallianz Kulturerbe

http://www.forschungsallianz-kulturerbe.de/ (as of May 6th, 2020)

The Forschungsallianz Kulturerbe ("Cultural Heritage Research Alliance") is a reliable point of contact for all questions relating to sustainable restoration. Three German research institutions pool their knowledge here and also act in an advisory capacity. The alliance brings together 15 Fraunhofer Institutes, eight Leibniz Research Museums, and five main Prussian Cultural Heritage Foundation facilities. An English speaking service is offered by the coordinator: Dr Johanna Leissner: johanna.leissner(at)zv.fraunhofer.de; Tel. 0032 2 506 42 43

Management plan and Management System

The terms used are based on the UNESCO terminology to create management plans and systems at UNESCO World Heritage sites.

https://www.unesco.de/sites/default/files/2018-05/ Management Plan for Wold Heritage Sites.pdf (as of May 6th, 2020)

Monumentenwacht

https://www.monumenten.nl/ (as of May 6th, 2020)

Since 1992, Monumentenwacht is a Dutch institution that offers its affiliated members (owners or managers of a monument or valuable heritage site) an inspection system in which the state of preservation of a valuable building, interior or works of art, sailing heritage and archaeological sites, are regularly examined. At the end of the inspection, a report is drawn up containing concrete recommendations for maintenance and repair. In this way, the site owner knows exactly which works and interventions for conservation are urgent.

Books and publications

Bruce W. Tuckman (1965): 'Developmental Sequence in Small Groups', Psychological Bulletin 63

H.R. Schalcher (2007): Projektmanagement – Seminar Script, ETH Zürich, IBB Institut für Bauplanung und Baubetrieb

H.R. Schalcher (2007): Systems Engineering – Seminar Script, ETH Zürich, IBB Institut für Bauplanung und Baubetrieb

General information about project management:

http://www.project-management-basics.com/ (as of May 6th, 2020)

UNESCO Publication: "World Heritage and Sustainable Development. New Directions in World Heritage Management"

https://www.routledge.com/Key-Issues-in-Cultural-Heritage/book-series/KICH (as of May 6th, 2020)

Handreichung der Kultusministerkonferenz der Länder zum UNESCO Welterbe (in German only)

https://www.kmk.org/fileadmin/Dateien/pdf/ PresseUndAktuelles/2017/Online_Version_Brosuere_ Welterbe.pdf (as of May 6th, 2020)

Antonine Wall Management Plan

The plan of the British UNESCO World Heritage site of the Roman Antonine Wall is an excellent example of a management plan which considers a sustainable and interdisciplinary approach in heritage management:

https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationid=f477 ec1e-8366-4295-ac10-a5c900aab488 (as of May 6th, 2020)

Brainstorming Report - "Towards an integrated approach to cultural heritage for Europe - prospects on skills, training and knowledge transfer for traditional and emerging professions"

In the so-called "Structured Dialogue" of the European Commission, 32 European experts wrote a study on the topic "Towards an integrated approach to cultural heritage for Europe – prospects on skills, training and knowledge transfer for traditional and emerging professions" within the framework of the EU initiative Voice of Culture. The aim was to develop strategies for the European Cultural Heritage Year 2018 on how education and knowledge transfer in cultural heritage conservation must be organised in the future. Interdisciplinary aspects are strongly considered in this report.

https://heritage-pro.eu/brainstorming-report-on-skillsfor-heritage-preservation/ (as of May 6th, 2020)

Fostering cooperation in the European Union on skills, training and knowledge transfer in cultural heritage professions

Study

The Council of the European Union had invited a group of national experts to investigate skills, training and knowledge transfer in the heritage professions in Europe. The group was operational in 2017 and 2018 under the Work Plan for Culture 2015-2018, with the support of the European Commission. This report is intended to be a resource for the European Union (EU) to ensure the long-term sustainability of Europe's cultural heritage. It aimed to contribute to the European

Year of Cultural Heritage 2018 objective 'to support the development of specialised skills and improve knowledge management and knowledge transfer in the cultural heritage sector, taking into account the implications of the digital shift'. It contributes to the European Framework for Action on Cultural Heritage, launched by the European Commission to leave a policy imprint beyond 2018.

https://publications.europa.eu/en/publication-detail/-/publication/e38e8bb3-867b-11e9-9f05-01aa75ed71a1/language-en/format-PDF?fbclid=lwAR0z_YkYlmlfsZET7onnk-DfXeOqbjFGj6qH8IU0bFK_gP5eb-l_YpJm-aw (as of May 6th, 2020)

Arts Council England (2018). "Changing Cultures - Transforming Leadership in the Arts, Museums and Libraries."

https://www.artscouncil.org.uk/sites/default/files/download-file/Changing%20Cultures_0.pdf (as of May 6th, 2020)

THE HERITAGEPRO PARTNERS: AN INTERDISCIPLINARY TEAM FOR SKILLS DEVELOPMENT IN CULTURAL HERITAGE PRESERVATION

HERITAGE-PRO is an Erasmus+ initiative of six European partners from five countries who strive to answer the continuing call for interdisciplinary training for professionals of different disciplines towards sustainable management and preservation of cultural heritage.

The **HERITAGE-PRO** website https://heritage-pro.eu/ provides you with further information and updates. Please feel invited to browse through the pages and benefit from information and training material alike.

HERITAGE-PRO is implemented by a partnership of six European institutions, companies and networks from Germany, Spain, Austria, Sweden and Belgium, all active in vocational training to preserve cultural heritage. They developed cooperatively this vocational training scheme that closes the gap of interdisciplinary training in the field.

 Kultur und Arbeit e.V. - Bad Mergentheim / Germany (coordinator)

www.kultur-und-arbeit.de

Restrade - Höganäs - Sweden

www.restrade.se

 Asociación Española de Gestores de Patrimonio Cultural (AEGPC) - Madrid / Spain

www.aegpc.org

 European Network on Cultural Management and Policy (ENCATC) - Brussels / Belgium

www.encatc.org

Institut f
 ür immobilienwirtschaftliche
 Forschung (IPRE) -Vienna / Austria

www.ipre.at

 Entwicklungsagentur Rheinland-Pfalz -Mainz / Germany

https://ea-rlp.de/

2.18 ACKNOWLEDGEMENTS

The **HERITAGE-PRO** team is very proud that the following European experts have accepted the invitation to the project's Advisory Board. Their institutions are Associated Partners to the project:

Germany

- Mrs Patricia Alberth, head of the World Heritage
 Office of the City of Bamberg.
- Mr Thomas Metz, director of the General Directorate for Cultural Heritage of Rhineland-Palatinate.
- Mr Frank Sprenger, head of the Centre for Conservation and Monument Conservation of the Koblenz Chamber of Crafts.
- Mr Titus Kockel, PhD, head of Unit Promotion of the Trades, German Confederation of Skilled Crafts and Small Businesses.
- Mrs Ursula Fuhrer, conservator, lecturer, former head of the conservation department at the German Historical Museum in Berlin.

France

 Ms Claire Giraud Labalte, heritage expert, art historian and professor emeritus, member of ENCATC / Alliance 3.3. She is president of Le Pôle du patrimoine en Pays de la Loire and president of the association Territoires imaginaires.

Sweden

- Ms Rebecka Nolmard, director-general, Swedish Ministry of Culture.
- Mr Gunnar Almevik, PhD, professor at Gothenburg University, Department of Conservation.

Spain

- Mr Carlos Romero Moragas, archaeologist and cultural manager, Head of the Centre for Training and Dissemination at the Andalusian Institute of Historic Heritage (IAPH) a regional public agency located in Sevilla (Andalucía, Spain).
- Mr Gabriel Morate Martin is Director of the Spanish Historic Heritage Preservation Program at MonteMadrid Foundation, member of the Executive Board of Hispania Nostra and the Spanish Association of the Friends of the Castles (Head of the Technical Department). He is Editor of the "Monumentos Restaurados" (Restored Monuments) Publication Series.

Norway

 Dr. Mr Terje M. Nypan, Technical Director at Riksantikvaren (Norwegian Directorate for Cultural Heritage)

