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Exploration of cooperative management system of transregional cultural landscape heritage: a case study of Loire Valley between Sully-sur-Loire and Chalonnes

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Abstract

There seems to be a general consensus that management and policy play a very significant role in landscape evolution, and the protection and development of cultural landscapes are considered important components of sustainable development. This study introduces an overall landscape protection framework and explores the cooperative management system of the Loire Valley cultural landscapes as a World Heritage Site. By analysing the transregional management system and the relevant policies for protecting the Loire Valley cultural landscapes, this article tries to determine how this coordinating mechanism is constituted and operated and how local authorities and stakeholders can be coordinated to implement protection and development projects that visibly influence the evolution of cultural landscapes in the area. This transregional cooperative management system actively promotes the rehabilitation and revitalisation of the cities and territories of the Loire Valley. Thus, the article summarises key actors and ways to establish an effective cooperation management system that can provide a reference for other transregional heritage sites.

Keywords: Cultural heritage management, Cultural landscapes, Cooperative transregional management system, Loire Valley, Collective enhancement

1 Introduction

Over the past century, our living environment has been affected by urban expansion and sprawl as well as by population migration; modern construction and urban planning transform landscapes in accordance with economic and social developments. These new human demands are leading to a change in the forms of land use and occupation. In this process of transformation, cultural landscapes are considered a readable symbol with cultural and social significance.

Since 1992, cultural landscapes were recognised as an important and unique category of world cultural

heritage, and the protection and management of cultural landscapes from the perspective of heritage has since received increasing attention (Fowler 2003). The framework of world heritage management promotes the protection of magnificent cultural landscapes that represent the ‘combined works of nature and of man’ (Operational Guidelines for the Implementation of the World Heritage Convention, UNESCO 2019) and illustrates a particular identity of human society and settlement. Currently, the safeguarding of cultural heritage is also treated as an important facet of sustainable development issues.

The United Nations adopted the ‘2030 Agenda for Sustainable Development’ in 2015 (United Nations 2015), declaring that cultures and civilisations are considered crucial enablers that contribute to sustainable development and recommending goals regarding further efforts to protect and safeguard the world’s

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cultural and natural heritage (2030 Agenda for Sustainable Development: Goal 11).

In 2016, the United Nations Conference on Housing and Sustainable Urban Development (Habitat III) held in Quito adopted the 'New Urban Agenda,' which put forwards a better and more sustainable future urban development model (United Nations 2016). The new model re-emphasises that culture, as a priority component, should be included in urban plans and strategies, cultural heritage should be leveraged for sustainable urban development and recognised for its role in stimulating participation and responsibility; it is necessary to build management policies and strategic development policies for the protection of tangible and intangible cultural heritage and landscapes, as well as for the construction of integrated systems of cities and human settlements and promoting cooperation among all levels of government to enable the achievement of sustainable integrated urban development (New Urban Agenda, n°15, n°124).

As seen from international development strategies, the management of cultural heritage and landscapes is a crucial component for supporting sustainable development (Taylor, Clair, and Mitchell 2017; Luginbühl and Terrasson 2013). In this field, large-scale landscape protection and management have gradually become a key focus (Auduc 2006; Pernet 2014; Raymond et al. 2015). For transregional and diversified landscapes, coordinating stakeholders to formulate guidelines and implement projects in the process of urban planning is a key part of building a transregional coordinating management system (Mitchell, Rössler, and Tricaud 2011; Taylor, Clair, and Mitchell 2017; UNESCO 2003).

The aim of this paper is to explore the establishment of an effective and long-term transregional coordinating management mechanism. By studying the cultural landscapes of the Loire Valley between Sully sur-Loire and Chalonnes (hereinafter referred to as 'Loire Valley'), the paper analyses the strategies, structure and operational approaches to building such a management system. In addition, a transregional cultural landscape site whose effectiveness has been proven can serve as a reference for other similar sites.

This paper illustrates the complex composition of the cooperative mechanism by examining the following questions:

- The organisation and establishment of the coordinating structure: Who are the stakeholders that form this structure? What are the relevant departments and institutions at different administrative levels?
- A long-term and effective concertation mechanism: How do different stakeholders establish cooperative

relationships to formulate strategies and guidelines relating to the protection and enhancement of the cultural landscapes of the Loire Valley?

- Policy orientation and project implementation: What are the relevant policies in France? How are different orientations integrated into urban planning documents and implemented in practice? What are the influences on the evolution of the site's cultural landscapes?

These questions are addressed through a deconstruction of the area's management system. To summarise the recommendations and frameworks that can be widely used for reference, three main research approaches were taken:

- Documentary research, including the analysis of data relating to policies and the corresponding institutions, the safeguarding programs and their orientations, as well as decision-making documents aimed at defining strategies for the protection and enhancement of cultural landscapes of the Loire Valley.
- Field surveys: This survey aims to understand the management system at a practical level, the cooperation between different local communities and the implementation of the projects. Several visits were carried out to conduct stakeholder interviews.
- Cartographic analysis: It was based on a large corpus of maps and plans, making it possible to visualise the evolutions and transformations of the area.

Accordingly, the paper is divided into 8 sections: 1. Introduction; 2. Research context; 3. Loire Valley – A concept of overall landscape environmental protection; 4. Uniting stakeholders to build a long-term coordinating management system; 5. Creating a long-term effective concertation and coordination mechanism; 6. Relevant policies supporting the protection of cultural landscapes; 7. Implementing numerous new projects since 2000; and 8. Conclusion.

After the introduction, the paper will present the research context and site characteristics, followed by an overview of the protection concept of property. The core findings of the research concern three areas: integrating stakeholders to build a coordinative management system, creating a long-term effective concertation mechanism, and generalising relevant policies to support the protection of cultural landscapes. Illustrating the projects implemented after the inscription of World Heritage demonstrates the effectiveness of this coordinating mechanism on a practical level and of the

implementation of overall orientations and programs in the focal area. The final section provides a concluding discussion with recommendations.

2 Research context

2.1 Development of the world heritage concept from separate to integrated

In the 1980s, the World Heritage Committee began to pay attention to the protection of cultural heritage sites on a larger geographic scale, where the landscape notably represented the interaction between humans and nature, embracing not only historic architecture and districts but also beautiful rural scenery (Han 2007). These evolving landscapes were in great need of recognition and protection. However, during this period, it was difficult to classify this kind of landscape into one of the three categories of world heritage (cultural heritage, natural heritage, mixed cultural and natural heritage).

The issue of the inadequate division of world heritage categories was at the forefront of debates in the 1980s, and the subject is inextricably linked with interest in landscapes. During the 8th session of the World Heritage Committee in 1984, key issues such as the inscription and protection of rural landscapes were raised: *The criterions should be expanded to facilitate the identification of rural landscapes, such as the rice-fields, the vineyard areas, or the terraces fields of the Mediterranean Basin; the evolution is an important characteristic of such living landscapes; the States Parties should value and promote the protection of the integrity of such landscapes in order to maintain their characteristics* (Report of the 8th session of the World Heritage Committee in 1984). There was a general consensus among experts about the insufficiency of the current operational guidelines of the convention for the protection of rural landscapes. Accordingly, the committee requested that IUCN consult with ICOMOS and the International Federation of Landscape Architects (IFLA) to develop guidelines for identifying and nominating mixed cultural/natural rural properties or landscapes to the committee in subsequent sessions (UNESCO World Heritage Committee 1984).

The genesis of the category of cultural landscapes dates back to the submission for the nomination of the English Lake District, endowed with magnificent picturesque landscapes, including glacial valleys, farms, prestigious villas, gardens and parks. The inscription of the site as a World Heritage Site was proposed in 1986 and again in 1989. However, both proposals were rejected, which led to a debate within the World Heritage Committee on how to recognise living cultural landscapes with outstanding universal value (OUV) (World Heritage Nomination file of the English Lake District, UNESCO 2017).

In 1992, a crucial meeting initiated by the World Heritage Centre was held in 'La Petite-Pierre' (a village located in the Northern Vosges Regional Natural Park of France), which was the first time the characteristics of a 'cultural landscape' were defined as qualifying something as a World Heritage property (Brown 2018). It was proposed as a special category of World Heritage in 1992, and the *Operational Guidelines* (UNESCO, World Heritage) were officially revised in 1994 to add this new category. Cultural landscapes have therefore become an essential concern in the nomination of sites that illustrate the interaction between nature and human activities, with particular interest in resolving the issues regarding the inscription of rural areas in the World Heritage List. The category of cultural landscapes was officially incorporated into the World Heritage Operational Guidelines in 1994; these guidelines define cultural landscapes as cultural properties and represent works that combine the efforts of nature and humankind: *Cultural landscapes are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal* (Article 47, Operational Guidelines).

2.2 Management of cultural landscapes, attracting increasing attention since the 1990s

Scientific research on cultural landscapes in terms of heritage has grown since the 1990s, after their recognition in the world heritage framework. Obviously, UNESCO is taking the initiative in this regard.

From 1992 to 2007, UNESCO organised 11 thematic expert meetings on World Heritage cultural landscapes. For example, to promote the implementation of the Action Plan for the Future (Cultural Landscapes) adopted in December 1993 by the World Heritage Committee, a group of international experts (World Heritage Centre, ICOMOS, IUCN, ICCROM, IFLA, etc.) met in June 1999 in Banská Stiavnica (Slovakia) to discuss the issues and challenges encountered in the management of cultural landscapes (UNESCO 1999).

As of 1998, most of the 12 cultural landscapes listed as World Heritage Sites did not have a management plan. For this reason, at the Banská Stiavnica conference held in 1998, the management of cultural landscapes became a central topic of concern for this new category. Experts tried to take the existing protected areas and their systems as references for the management of cultural landscapes, expounding upon the issues that might arise in managing this new category and the feasibility of actually implementing a management system. For example, Mr. Pierre-Marie Tricaud presented the management

system of the Regional Natural Park in France, which uses a charter signed by the municipalities of the park, as well as the tourism development plan for the agricultural landscapes in the park. Issues related to site management coordination and the catalytic effect of inscriptions of cultural landscapes in the World Heritage List were also addressed by Mr. Peter Fowler in his article 'Cultural Landscape in Europe'. Ms. Jane Lennon narrated Australian experiences with formulating management guidelines for cultural landscapes, which involved specific issues such as land ownership, awareness, and funding.

This meeting illustrated the main problems encountered in the protection and management of cultural landscapes during the initial stage of the endeavour: Due to the immense diversity of cultural landscapes, it is difficult to develop general principles, there are still many sites with cultural landscape value that have not yet been proposed by for World Heritage inscription, and the management of cultural landscapes requires a team of experts from different disciplines in order to meet the needs related to social, ecological, economic and touristic development.

This discussion further confirmed the necessity of developing management plans for cultural landscape heritage sites and promoted their implementation in various heritage sites. The meeting made recommendations for developing a general guideline for establishing a management plan that touched on various issues (such as tourism, agriculture, socioeconomic and ecosystem) and their effects on the landscape, collaboration with the appropriate institutions to establish an action program, training in the management of cultural landscapes, etc.

During the International Congress of Experts organised in November 2002 by the UNESCO World Heritage Centre in collaboration with ICCROM, ICOMOS and IUCN, one of the nine thematic workshops was devoted to cultural landscapes, 'Cultural landscapes: the challenges of conservation'. Subsequently, the important output of the workshop concerning landscape conservation and management situations in different regions was published as a paper in 2003 by UNESCO (World Heritage Papers n°7).

To summarise the progress made after 10 years of recognition of cultural landscape in the World Heritage, the World Heritage Centre published 'World Heritage Cultural Landscapes 1992–2002' (World Heritage Papers n°6), edited by Mr. Peter Fowler, in 2003; this paper gave an overall analysis report on the protection of cultural landscape over the previous 10 years. It provided a general evaluation of strategies and challenges for the sites listed on the World Heritage List.

The attention given to cultural landscapes at the beginning of the 21st century was immense. As one of the core advisory bodies of world heritage, IUCN follows

this issue, given its interest in ecological and biological issues, but the group's interest is no longer limited to the protection of the natural environment. The landscape is regarded as an important connection among nature, culture and the community (Brown, Mitchell, and Beresford 2005). Category V of the 'Guidelines for the management categories of protected areas' (Brown, Mitchell, and Beresford 2005).

ICOMOS compiled a list of cultural landscapes (registered in the World Heritage List) and information on the management of sites in 2013. In addition, Prof. Ken Taylor (Australian National University) edited the book 'Conserving Cultural Landscapes: Challenges and New Directions', published in 2014, which is a collection of articles on various themes relating to the protection and management of cultural landscapes, such as community empowerment, new policy approaches and frameworks (Historic Urban Landscape, HUL: Oers 2010), climate change and global transformation.

Regarding the research in France, the inclusion of the Jurisdiction of Saint-Emilion (5 December 1999) on the World Heritage List as a 'cultural landscape' provoked a thorough discussion of the definition and management of cultural landscapes. The International Symposium of Saint Emilion held in June 2001 on the theme 'Heritage and Cultural Landscapes' marked a significant advance in the study of cultural landscapes.

The European Landscape Convention, adopted in Florence (Italy) in 2000 and ratified by France in 2006, indicates that awareness of landscape protection has gradually increased across Europe (Leroy, Godart, and Ina 2014). The convention extended landscape protection from 'those remarkable sites' to 'everyday life spaces', and determined that both degraded territories and those of high quality should be considered for protection. Landscape protection is no longer only an aesthetic or ecological preservation concern but an integration of these two aspects, closely related to the quality of living environment, which constitutes an essential element of individual and collective well-being.

Furthermore, the seminar 'Towards the consideration of "cultural landscapes" within the framework of operations of the General inventory of cultural heritage', organised by the association 'La Compagnie du Paysage' from May 29 to June 1, 2012, in Villefavard, illustrated a broadening consideration of landscapes by cultural heritage services at the Ministry of Culture and Communication. Experts and participants from the services of the General Inventory of Cultural Heritage (Inventaire Général du Patrimoine Culturel, IGPC) wished to consider landscape analysis as a source for the operation of the general inventory of cultural heritage and discussed how the landscape approach could be integrated into

the IGPC process. Although the characteristics of landscapes that are ‘living and evolving’ make it difficult to manage the landscapes in an architectural heritage way on the practical level, this discussion itself showed that the importance of managing landscapes, as a type of heritage, had been widely recognised.

As Françoise Choay pointed out, the protection of heritage has transformed from ‘static heritage protection, targeting objects, based on the notion of inventory, to dynamic, structural protection, anchored in everyday life. [...] Urban heritage must be conceived as a field of reconquest of architecture and the real profession of architect, a field of incentive experience, a space for learning the invention of new local spaces, both for practitioners and for users’ (Françoise 2006). Nevertheless, how to proceed with an inventory of ‘living and evolving’ landscapes is still an open question.

Concerning the area of the Loire Valley, the research projects launched by the Mission Val de Loire (MVL) made significant contributions to the study of this site, exploring diverse themes such as the territory’s characteristics, various protected zones along the river and the projects implemented at the local level by the involved municipalities (Mission Val de Loire 2007, 2010, 2012a, b, 2014). These documents have provided a basis for developing orientations and strategies to protect and further develop these sites (Laidet 2005, 2007, 2008, 2012). This first-hand information allows us to better understand the operation of the cultural landscape management system.

Due to the comprehensiveness and diversity of cultural landscapes themselves, a multidisciplinary analysis is an essential approach to understanding the site, mainly from the perspective of the landscape, agriculture, heritage, urban planning, tourism, literature, and sociology. We can examine the evolution of vineyard landscapes and the confrontation between various landscape models and the reality of vineyard landscapes (Legouy 2012; Laidet 2012), the process of confirming landscapes as heritage, and territorial planning for the integration of navigation and boat activities, which are essentially linked to tourist development (Pin, Jean-Baptiste, and Sylvie 2013). In addition, following the collection of articles from different fields, such as history, heritage, hydrosystems, and urban planning, two special collection series of ‘Revue 303’ were published in 2002 and 2012 (Revue 303 is a magazine specifically dedicated to presenting the wealth of heritage and artistic creation in Pays de la Loire — a region of France that contains one end of the Loire Valley).

Among these rich research topics, in addition to studies launched by the MVL and relevant service departments that contributed greatly to the compilation of the ‘Management Plan’ of Val de Loire, we find

few dissertations that analyse coordination mechanisms. Baron-Yellès Nacima wrote an article specifically addressing this issue in 2006 to introduce the transformation of the protection and management of the Loire Valley after its registration as a world heritage site. The work proved that the designation of the concept of a cultural landscape to protect both natural and cultural elements has deeply influenced regional development strategies. This transformation is reflected in two aspects: One is the decentralisation of responsibility from state to local governments; the other is that the protection schema of the Loire area changed from a focus on ecological issues in the 1990s to the idea of combining such efforts with heritage protection after the area’s official heritage designation in 2000 (Nacima 2006).

The regional landscape development goals for this area are formulated in accordance with the value criteria of UNESCO, showing a transformation of focus in local development policies and guidelines. Additionally, this local development strategy, which combines heritage and ecological concerns, has mobilised more local resources for the protection and renewal of historical cities, the improvement of public spaces, and the increase in recreational and cultural activities and places, which bring new opportunities for local development.

However, Baron-Yellès Nacima’s article was published in 2006. The MVL was established in 2002 and was in charge of the overall coordination of this site’s management. The site was still in its initial development stage after the creation of the management system, so the analysis of the effectiveness of the management mechanism was very limited. In addition, the article simply introduced the functions and composition of the three important roles (territorial conference, development committee, MVL) in the management system and did not discuss how the entire coordination system works.

Therefore, we analyse and explain the operation of this coordinating mechanism in more detail and confirm its effectiveness through the implementation of orientations and projects. The entire system is constantly being extended and improved, providing more detailed experiences and information for the study of cross-regional cooperative management.

3 Loire Valley — a concept of overall landscape environmental protection

The world heritage cultural landscapes of the Loire Valley, with a length of nearly 300km and an area of almost 800km² (nominated property boundary), were registered on the World Heritage List in 2000 owing to the area’s ‘exceptional cultural landscape’. The site represents a typical continuing landscape of world heritage cultural

landscapes and retains an active social role in contemporary society that is still evolving (Figs. 1 and 2).

The heritage site includes 2 regions (Centre-Val de Loire, Pays de la Loire), 4 departments (Loiret, Loir-et-Cher and Indre-et-Loire, belong to the Region Centre-Val de Loire, Maine-et-Loire belongs to the Pays de la Loire region), one park (Loire–Anjou–Touraine Regional Natural Park), 155 municipalities and 18 intermunicipalities, including nearly one million residents. Interregional

cooperation is the main operational mechanism for the protection and management of the Loire Valley.

The inscription of the site was first proposed in 1999 (UNESCO 2000), and this gave rise to a debate concerning the definition of an ‘organically evolved landscape’ because of a nuclear power plant located within the proposed perimeter of the site. The interpretation of ‘continuing landscape’ and the appropriate integration of modern elements into a heritage site became central



Fig. 1 Landscapes of the Loire Valley, city of Saumur. (Source: left, Liang Peng; right, Alain Marinos)

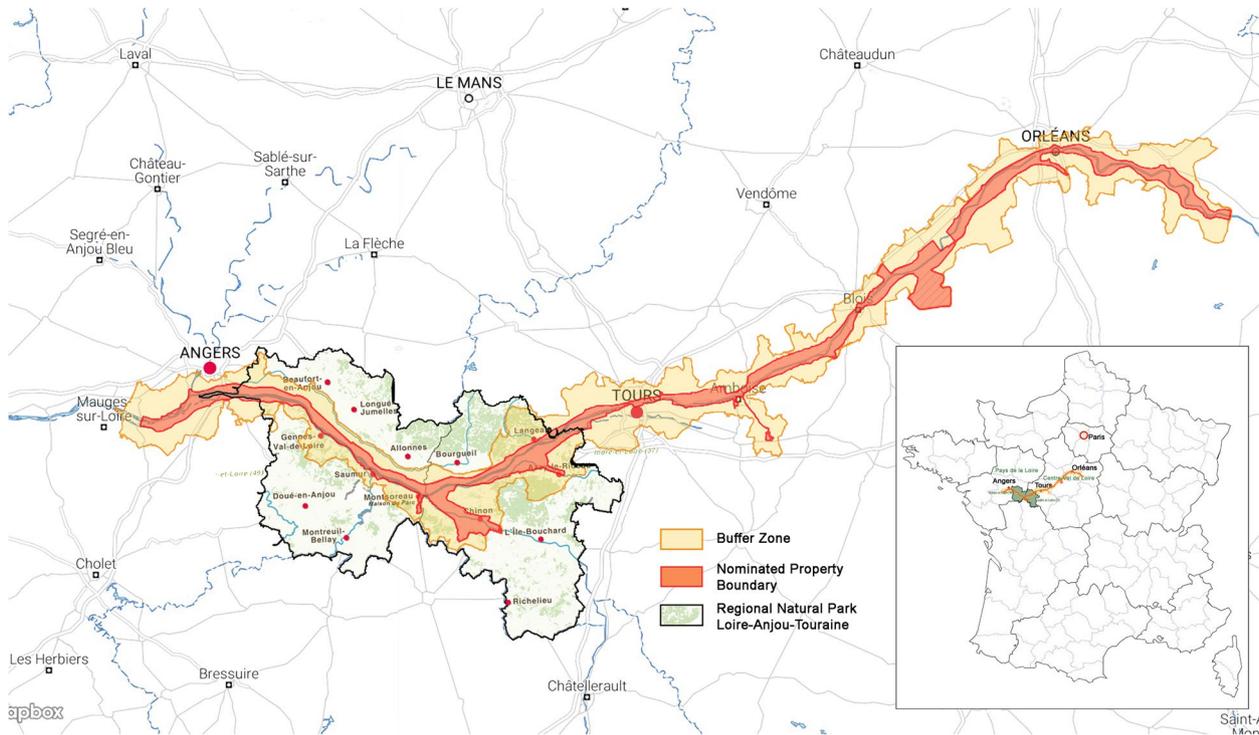


Fig. 2 Location and delimitation of the World Heritage Cultural Landscapes Loire Valley. (Source: Peng 2020). References of delimitation: documents of Loire Valley of World Heritage, World Heritage Center-UNESCO; map of Park, Regional natural park Loire-Anjou-Touraine. Background map: mapbox

points during the debate. The cultural landscapes of the Loire Valley are continuing to evolve, and some delegates thought the nuclear power plant located in proximity to the riverbed was acceptable, because it signified the economic and social evolution of this area, but other delegates took the opposite view. Ultimately, the inscription of the Loire Valley was not approved by the committee, and the working group formed by representatives of the various countries and ICOMOS could not reach a consensus on the issue of the nuclear power plant (ICOMOS 2017).

The nomination file was revised and resubmitted in 2000, with a new report specifically explaining the relationship between the modern elements and cultural landscapes of the site. The new report indicated that *the elements of modernity constituting an extension of the historical relationship of man to the site give it its value* (Nomination file of World Heritage). Finally, the nuclear power plant was excluded from the nominated property boundary to protect the OUV of the site and was instead included in a buffer zone.

This process illustrates this integration of cultural and ecological concerns by listing the mechanisation of traditional vineyards, the renovation of historic towns, the rehabilitation of old buildings, etc. Therefore, the report considers the nuclear power plant to represent the continuity of energy use along the river as part of the evolution of the site’s cultural landscapes.

The most significant point of debate in the protection of continuing landscapes is ‘flexibility control’: the management and protection of evolving landscapes should not be limited to a ‘question of forbidding’ but should rather correspond to a ‘question of appropriate integration’ with a view to meeting social, economic and environmental needs by controlling the levels and measures for integrating modern elements into the site (Fig. 3).

Compared to that in the 1999 file, the delimitation of the property zone and the buffer zone in the 2000 file was considerably modified according to the committee’s suggestions. The protection of the OUV of world heritage sites with modern elements is always a controversial issue. To safeguard the value of the site from the perspective of overall protection, existing nuclear power plants are excluded from the core zone. The world heritage sites have strict requirements related to the value of sites, especially for modern facilities in a heritage site, so the boundary discussion of the Loire Valley illustrated a typical question and alternative solution that arise in this kind of situation.

Another point illustrating this overall concept of protection is the border delimitation of property, which is based on the hillsides of the Loire. The buffer zone corresponds to the perimeters of the concerned municipalities along the Loire. This approach allows the cultural and natural resources of cities and towns

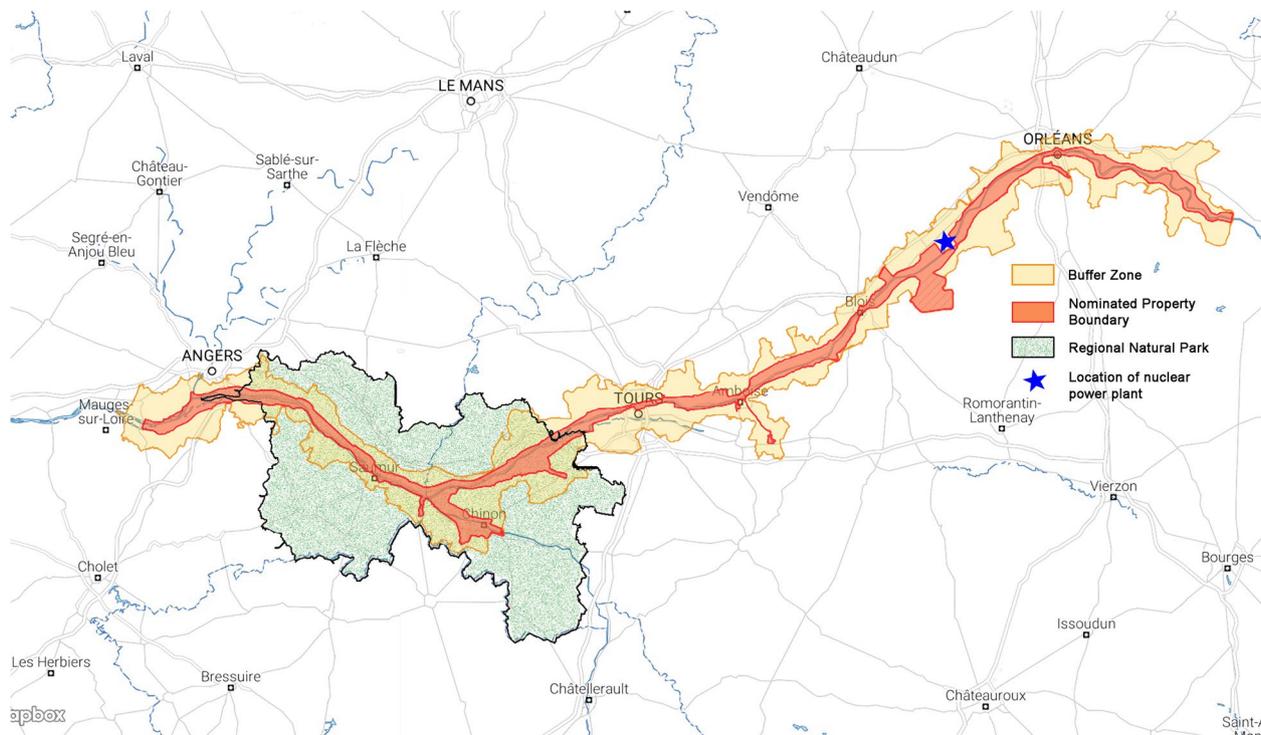


Fig. 3 Location of the nuclear power plant in the buffer zone (Source: Peng 2020)



Fig. 4 Structure of the two main levels of the management system of Val de Loire (Source: Peng 2020)

along the river to be more completely included in the protection scope of World Heritage. As a result, the property and its buffer zone cover a fairly large area including historical monuments; historic gardens, cities and towns; regional natural parks; natural landscapes; and other protected areas. Thus, the protection of cultural landscapes corresponds to a complex management system concerning all of these local protected categories, as well as urban planning policies.

For a site such as the Loire Valley, which crosses multiple municipalities, including not only urban but also rural and river areas, the protection of cultural landscapes requires the relevant local authorities to build a systematic cooperative management mode in order to develop and implement the protection strategies and programs from an overall perspective. The formulation and implementation of policies concern not only landscape, urban area and heritage protection but also agricultural and water and river management issues. Therefore, a system involving multiple stakeholders should be constituted. Policies and orientations, management methods, the classification of protection resources at different levels, and the integration of heritage conservation into urban planning are essential issues for the protection of cultural landscapes.

Therefore, this article will mainly analyse the collaborative management system of the Loire Valley, providing a reference for the management of other transregional heritage landscapes.

4 Uniting stakeholders to build a long-term coordinating management system

Multiple stakeholders are involved in managing the cultural landscapes of the Loire Valley, forming a complex governance model (UNESCO 2002; Laidet 2005, 2014;

Mission Val de Loire 2008, 2012a, b). Overall, there are two main levels in the model (Fig. 4).

The two main levels are the upstream level and the site level.

- At the upstream level is supervision from international organisations. For sites nominated to become World Heritage Sites, the UNESCO World Heritage Centre guides and supervises the process of site protection at the international level. The World Heritage Committee makes decisions regarding factors affecting the site, protection measures, the management and monitoring system of the site, the state of conservation of the site, etc. After advisory bodies (ICOMOS, IUCN, ICCROM) propose modifications to states concerning the protection and management of the site, the World Heritage Committee renders its decision taking into account the opinions of these advisory bodies during the sessions of the World Heritage Committee.
- The other level is the site management level, which involves the state responsible for the management of world heritage sites at the national level and a transregional coordinative mechanism established by the local authorities, which is this article’s main concern.

At the site level, to promote and implement the protection and development projects for the whole nominated zone, a joint institution called the MVL was established in 2002. The institution coordinates the efforts of local authorities and relevant stakeholders and is financed by two regional-level governments (Centre-Val de Loire Region and the Pays de la Loire Region), which function as the ‘head of the network’ and a ‘junction of stakeholders’.

The creation of this joint institution is not an innovation but a conventional practice with a legal basis in the history of transregional management of France. It is a public institution called a 'syndicat mixte' in French, created by a law issued in 1935 (le Décret-loi du 30 Octobre 1935) and regarded as a type of intermunicipal cooperation structure that is also applied to the management of regional natural parks (PNRs). Created in 1960 in France, the PNR is a territory that has voluntarily chosen a mode of development based on the enhancement and protection of natural and cultural heritage that is considered rich and fragile. It is common for several cities and towns to be located within the area of a regional natural park, so these joint institutions are made up of elected representatives from the municipality to manage the park. The provisions with regard to the creation, composition, function and finance of the joint institution are clarified in the 'Code de l'Environnement' (Environment Code) of France.

This kind of cooperative relationship is established on a legal basis, illustrating support at the national policy level for the establishment of a coordinating system between local governments and jointly protecting local culture and natural resources.

Important decision-making support came from Mr. Yves Dauge, the former mayor of Chinon and an advisor to the France-UNESCO Convention. Senator Yves Dauge was a key person in realising this idea to create a kind of management model inspired by the regional natural park system. He initiated the creation of the Loire-Anjou-Touraine Regional Natural Park and the nomination of the Loire Valley for the World Heritage List (Richard 2020).

Therefore, the establishment of the MVL was based on an existing legal system and the experiences of an existing regional natural park. The MVL cooperates and coordinates with local authorities and service departments to protect the value identified by the world heritage criteria. To carry out programs and actions aimed at protecting and enhancing the cultural landscapes of the Loire Valley, the MVL is at the centre of a system composed of different service sectors to perform the various project functions.

As the centre of this joint management system, the MVL was created to organise and coordinate the efforts of the state, local authorities and all stakeholders of the UNESCO site. It heads the cooperation between local authorities and service departments concerning the management plan, strategy and project development, information exchange and project follow-up. The MVL contributes to the appropriation of the identified OUV (outstanding universal value of UNESCO sites) through educational, cultural, mediation and communication actions for inhabitants and visitors. The organisation assists local authorities in

considering the OUV in their local planning endeavours and projects. It helps propose management programs and actions for the two regions in developing their public policy priorities and frameworks. Finally, the MVL also assists in designing and implementing action programs defined in the management plan of the Loire Valley.

Within the MVL, there are the following committees:

- The Union Committee, which comprises representatives from the two regions (Centre-Val de Loire, Pays de la Loire Region) and is a decision-making body of the MVL responsible for validating the funding, actions and activities for the protection and management of the site. This committee meets 3 to 5 times a year.
- The Technical Committee, which is an interregional constitution made up of the representatives from the two regions' service departments for the protection and enhancement of cultural heritage and the environment, the DRAC (Regional Administration of the Ministry of Culture) and the DREAL (Regional Administration of the Ministry of Ecological Transition), as well as representatives from the relevant governmental departments (representatives from the Departmental Exchange Bodies), and the MVL. This committee meets 4 times a year with the cooperation of local service offices to support specific projects on the agenda.
- Departmental Exchange Bodies, which closely participate in the local management of the site and constitute a link between the regional level and the local level with regard to the implementation of projects. These bodies are formed by the MVL, UDAP (Departmental Units of Architecture and Heritage), DDT (Departmental Directorate of Territories) and other institutions depending on the issues concerned. The DDT and UDAP are, at the departmental level, the services responsible for advising and monitoring the projects relating to cultural landscapes. As an important component of the Technical Committee, 2 of the 4 department (Loir-et-Cher and Loiret) members come from local town planning services and their advisory agencies. The members at this level meet 3 or 4 times a year. The Technical Committee brings together these representatives of the departmental bodies during its meeting in order to be better informed of practical problems that may be encountered at the local level.
- Finally, the Scientific and Professional Advisory Committee, which is composed of scientists and technicians in fields related to the protection and management of cultural landscapes (cultural and natural heritage, landscape, urban planning, etc.). This committee was created to support the activities put

in place by the MVL and reflect on medium- or long-term development strategies.

By establishing these committees and bodies, the MVL can launch research and practical projects by cooperating with local authorities and service departments.

Overall, the Ministry of Culture and the ministry in charge of protecting the environment cooperate to protect the cultural landscape of the Loire Valley, which involves administration and services related to not only the natural landscape but also the cultural heritage sector. The coordination of these ministries, the decentralised services and the local governments, under the concertation framework established by the MVL and under the authority of the Regional Prefect, constitute a transregional management system for the protection and development of this heritage site.

To better understand the functions of different stakeholders in this coordination system, it is necessary to examine the services and institutions involved in the management of this site in France. There are three levels of indispensable services:

At the regional level, there are the following:

- The DRAC (Regional Directorate of Cultural Affairs), as a decentralised service of the Ministry of Culture, is mainly in charge of issues related to cultural heritage and cooperates with the Institute of Cultural Affairs Inspections.
- DREAL (Regional Directorate of the Environment, Planning and Housing), a decentralised service of the Ministry of Ecological Transition, is mainly responsible for the protection of classified and registered sites or natural protected zones through cooperation with the CGEDD (which is responsible for environmental affairs inspections).

At the departmental level, there are the following:

- The UDAP, ‘Unités Départementales de l’Architecture et du Patrimoine’, which was called STAP (Services Territoriaux de l’Architecture et du Patrimoine) before 2016, is a service of the DRAC at the departmental level that is concerned with architecture, planning and heritage issues. This service is headed by French civil servant architects called ABFs (Architectes des Bâtiments de France). These architects and urban planners of the state provide professional advice and guidance in the conservation and revitalisation of various protected areas, such as the surroundings of historic monuments, historic districts, and remarkable cultural and natural heritage sites, during the planning and urban development process

(Marinos 2019). Notably, the functions of the ABFs, who head the UDAP, are as follows: Since 1946, these civil servant architects, trained in heritage rehabilitation, have played a central role in the control and monitoring of heritage and natural sites in collaboration with other services. They are responsible for promoting the quality of architecture and urban planning and its harmonious integration into the surrounding environment. In particular, they are responsible for advising local authorities on all construction and development projects in these areas and sites. They can therefore oppose any new construction or any modification likely to damage a monument or a site.

- The DDT, Departmental Directorate of Territories, presents DREAL services at the department level for addressing urban planning and environmental issues. It principally addresses issues relating to the sustainable development of rural or urban habitats in the urban planning progress, such as water protection, biodiversity, risk prevention, agriculture, housing and urban renewal.

In each department, a Architecture, Urbanism and the Environment Council (CAUE, Conseil d’Architecture, d’Urbanisme et de l’Environnement) is involved in the project implementation process. Furthermore, due to the overlapping of the Loire–Anjou–Touraine Regional Natural Park with the nominated site of the Loire Valley, it should be noted that the park also plays an important role in this transregional cooperative management system.

At the national level, there are the following actors:

- Within ministries, other institutions may also be involved in consultation and implementation process for important projects depending on the issues involved. At the express request of the ministers concerned or their representatives, these institutions can give scientific or technical advice and opinions on decisions and perspectives related to the protection of the site. Two important institutions are involved: (1) The General Council for the Environment and Sustainable Development (CGEDD) is a national inspection office responsible for the control and evaluation of classified or listed sites. (2) The Inspection of Heritage (Inspection des Patrimoines, IDP) is a national inspection service in charge of ensuring the application of laws and regulations relating to the protection of cultural heritage.
- In addition, the ministers in charge of culture and the environment or their local representatives has commissions that they can consult as much as necessary, such as the Superior Commission of Sites, Perspectives and Landscapes (national level) and the Depart-

mental Commission of Nature, Landscapes and Sites, which are available for authorities in charge of the environment to consult, and the National Commission for Heritage and Architecture and the Regional Commission for Heritage and Architecture, which are available for authorities in charge of heritage to consult.

Furthermore, several national, regional and local associations (NGOs) are publicly interested in the project and have contacted authorities to share their own competences. For example, the Association for the Protection of the Landscapes of France (SPPF, the Association of Sites and Remarkable Cities (Sites et cités remarquables), the Association of the Small Cities of Character of France (Petites Cités de Caractère de France) have done so (Fig. 5).

By deconstructing the entire management system and analysing the roles of the main relevant stakeholders, we can see that the operation of a transregional collaboration system requires not only the efforts of local governments but also the participation and coordination of multiple service departments from the state to the local level. Comprehensive protection requires the state to set up corresponding specialised advisory bodies (CGEDD, IDP) and professional civil servants (ABFs) in the cultural and environmental departments to provide advice and recommendations regarding the approval and implementation of local projects.

5 Creating a long-term effective concertation and coordination mechanism

In addition to these management, control, advice and consultancy institutions, the most important part in this transregional cooperation is the establishment of a long-term mechanism for effective communication, exchanges, and coordination that can contribute to decision making, the implementation of strategies and activity programs, and the exchange of information and experiences among stakeholders by providing advice and suggested directions. This concertation system mainly relies on four approaches:

5.1 At the overall level

- 1) A broader union and promotion: Loire Valley Meeting (Rendez-vous du Val de Loire)

The Loire Valley Meeting was held annually from 2002 to 2011; from 2012, it was held every two years. It aims to bring together all the institutions and individuals interested in the development of the Loire Valley. Participants in this conference include not only representatives of local government, service departments and research institutions and residents associations but also those involved in communication and the media, even the researchers and students. As long as their projects are related to the protection and development of the Loire Valley, individuals and organisations are all welcome to register for the conference.

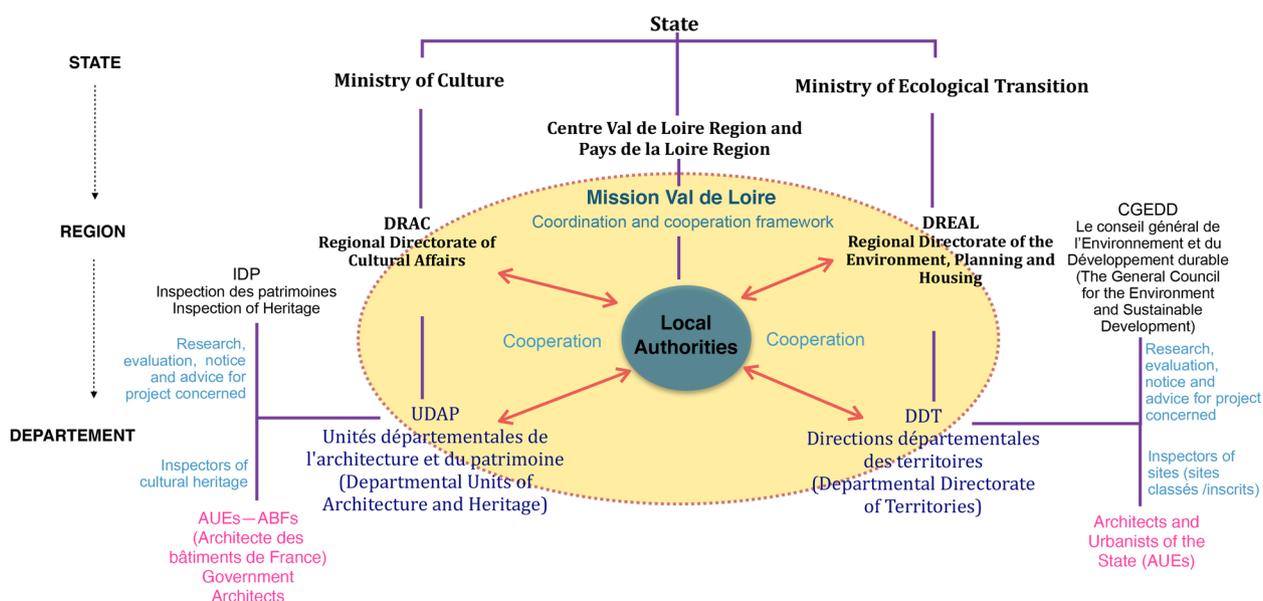


Fig. 5 Cooperation and coordination system of the Loire Valley management (Source: Liang Peng)

It is regarded as a union of all stakeholders, the government and the public, for debates and exchange and the promotion of strategies and practices related to cultural landscape protection. It also creates a space specially dedicated to the exhibition of projects. Certain representative projects launched by local authorities will be presented during this meeting. In addition, it includes other activities, such as the sale of publications related to the Loire.

- 2) Plenary meeting of local authorities: The Val de Loire World Heritage Territorial Conference (Conférence Territoriale du Val de Loire patrimoine mondial):

This conference has been defined as a fundamental management measure by which the local authorities' representatives review the statement of the previous year and define the orientations, actions and programs for the next year. It is chaired by the regional prefects and the presidents of the regional councils and participates by the representatives of local authorities and relevant committees.

It is a privileged moment to communicate, witness, share and promote the projects carried out within the framework of the guidelines defined. It is also an important opportunity for exchanges between the State and the various local authorities in the 2 regions on the challenges facing the Val de Loire UNESCO.

This general assembly of the Territorial Conference takes place every year. From 2014, when it was the year of the Loire Valley meeting (RDV Val de Loire), the Territorial Conference took this opportunity to be arranged on the same date as the Loire Valley meeting. This conference presents a summary of the activities carried out last year by the local authorities and services departments, such as an overview of the implementation of recommendations of the Management Plan for protection of heritage values at the local level.

5.2 At the interdepartmental level

The Loire Valley Meeting and the territorial conference mentioned above are supposed to be the major opportunities for interaction among stakeholders on an overall level regarding the protection and development of world heritage. However, the site includes many cities and villages along the Loire River. To make communication and information exchange systems more efficient at the local level, the MVL also organises interdepartmental sessions to share experiences with the implementation of various strategies and projects.

- 3) Separate small group local sessions: Local authority sessions (Rencontres des collectivités locales)

Local authority sessions are held every 2 years, alternating with the Loire Valley Meeting. Normally, 2 sessions (in April and November) of 4 or 5 meetings (held in stages in different municipalities) spread over the entire territory, and each municipality's meeting is considered a 'joint' meeting that gathers together nearby municipalities for a local and interdepartmental exchange concerning the progress of program and project implementation for the protection and development of the cultural landscapes of the Loire Valley. In addition to local authorities, this meeting also invites related regional services, associations and professionals in the land use planning, heritage and landscape fields.

- 4) Promotion of site: Communication and media meetings (Rencontres de la médiation)

The two or four mediation meetings take place every year across the entire site with the aim of implementing Orientation VIII of the Loire Valley Management Plan — Promote the appropriation of registration values (World Heritage). The meetings are dedicated to all those involved in cultural and heritage mediation, such as local authorities, tourist offices, tourist websites, cultural institutions and private operators. Local authorities have implemented various tools to promote awareness of the heritage of the Loire Valley, such as the 'Loire Valley From the Train' mobile application, which promotes landscapes, booklets for youths, exhibitions, etc. (Table 1 and Fig. 6).

Overall, this concertation and communication mechanism is vital for ensuring the effective implementation of the overall strategies and guidelines and is thus indispensable in the transregional cooperation system.

By studying the concertation process in the management system, we can see the MVL and the stakeholders have created four main approaches to support the operation of this mechanism:

- A broader union that gathers all participants in projects related to the Loire Valley to exchange experiences and promote the protection of the site.
- A plenary meeting that gathers all local authorities located inside the property to define the orientation and action programs of the initiative.
- Several separate small group sessions that unite local authorities that fall under a certain scope. These sessions cover all the municipalities included in the site. They aim to ensure and strengthen local cooperation for the management of the site.

Table 1 Organisation of the four types of meetings for communication and exchanges since 2012

	Loire Valley Meeting (Rendez-vous du Val de Loire)	Territorial conferences/ General assembly	Local authority sessions	Communication and media meetings
2012	X	X		
2013		X	X	X
2014	X	X		X
2015		X	X	X
2016	X	X		X
2017		X	X	X
2018	X	X		X

- Communication and media meetings are also needed to discuss the approaches for increasing public awareness in the recognition of heritage and landscape values, which are considered important tools for tourism development. The exchanges and debates can also help in implementing these promotional programs at the local level.

6 Relevant policies supporting the protection of cultural landscapes

6.1 Management plan for the site

According to the requirements of UNESCO, each heritage site should have adequate long-term legislative, regulatory, institutional and/or traditional protection and management to ensure the conservation of the site and an appropriate management plan or other documented management system to preserve the OUV of the property (Operational Guideline, WHC, UNESCO).

In the early stages, the MVL carried out studies and pilot projects to formulate guidelines for the sustainable management of the cultural landscapes of the Loire Valley. An initial prototype for the management plan, comprising three parts, was shared at a 2008 territorial conference. In addition, the General Assembly decided to undertake an action program from 2008 to 2010 concerning various subjects, such as label management, education, the enhancement of the public awareness of the landscape value of the site, planning and landscapes, tourism development, and international cooperation (Laidet 2008).

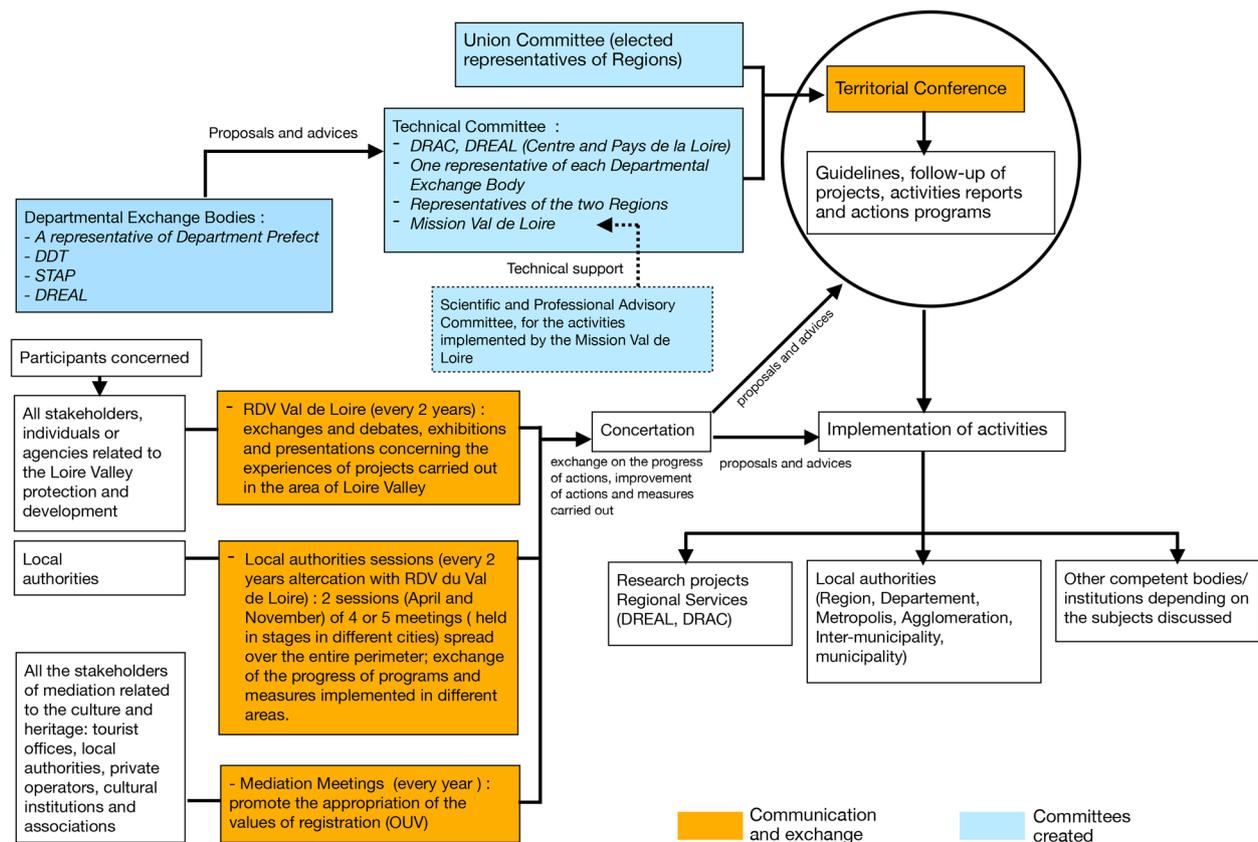


Fig. 6 Schema of concertation and communication (Source: Peng 2020)

A draft management plan based on the model proposed by UNESCO was initiated by the regional services of both the Ministry of Culture and the Ministry of the Environment in collaboration with the MVL. The formulation of the management plan lasted almost four years. The first version was examined at the General Assembly in September 2009; between 2010 and 2011, the technical committee organised several discussion sessions with local authorities for revising and supplementing the management plan as well as meetings with the public to raise awareness of the landscapes' value. Finally, the Management Plan of the Loire Valley was approved by the General Assembly in November 2012. Subsequently, 90% of local authorities approved the management plan and integrated it into their local policies. The plan provides guidelines aimed at integrating the protection and development of cultural landscapes into regional and urban planning, which marks the considerable progress of the coordination management system of the Loire Valley.

The management plan presents the entities charged with the protection of the site as well as the elements that characterise the cultural landscape by analysing the threats to and impacts on the evolution of landscapes in the Loire Valley at three scales (large, medium and small). This indicates that the management of the site is a shared and civic responsibility; the plan proposes actions for increasing the dynamic mobilisation of stakeholders and supports decision-makers by providing advice and promoting pilot projects. It also suggests strengthening the networking among these stakeholders to build a common culture for planning, operational town planning and design projects (orientation 9, Management Plan).

To reinforce the protection of the OUV of the Loire Valley and to control these threats and impacts, the management plan provides guidelines concerning the protection, enhancement and management of the cultural landscapes of the Loire Valley. These guidelines refer to various development goals, such as preserving and enhancing the heritage and remarkable areas within the site (open up the city to the river and develop the public spaces along the Loire), preserving the belvederes and remarkable zones, controlling urban sprawl, integrating new service equipment, and developing tourism.

The plan presents measures at the global level concerning the protection of the Loire Valley, provides an inventory of existing protection regulations and identifies symbolic spaces within the nominated zone of the site. It is recommended that local authorities follow these guidelines and integrate them into their territorial planning policies and urban planning documents.

The eventual adoption of the management plan is the result of successful cooperation and coordination among

different stakeholders, marking a significant turning point for improvements in the management system. By providing the guidelines and an overall orientation alongside proposed actions, the management plan creates a common reference system for protecting the landscape of the Loire Valley.

However, the status of a management plan was not legally recognised in France until the adoption of the LCAP law on the 'Liberté de la Création, Architecture et Patrimoine' (Freedom of Creation, Architecture and Heritage) on 8 July 2016. Chapter II of this law includes certain provisions relating to properties inscribed on the World Heritage List.

However, there is still a debate about the legislation of the management plan. Therefore, considering the diversity of the site, a certain flexibility should be maintained in the regulations to respond to different situations that arise in the municipalities concerned, and the plan should also be revised and supplemented by periodic monitoring and supervision.

6.2 Basic understanding of the French heritage protection system

Here, we introduce the relevant laws and regulations because they are key elements in the operation of the entire collaboration system and the implementation of projects. The background and evolution of relevant policies helps us understand the French heritage protection system and how these guidelines for the protection of cultural landscapes are integrated into urban planning documents and implemented.

As one of the first heritage protection systems in the world, the initial French system has exclusively focused on historical monuments, although it has been extended to include landscapes and territories. The main laws concerning the protection of heritage are listed below in order of their promulgation from the end of the 19th century to the present day, allowing us to mark out the stages of the evolution and to find our bearings in time.

Protection have evolved from covering only monuments to including the areas surrounding monuments in the first half of the 20th century, further extending to safeguarded areas (historic districts) in the 1960s, and finally, to historic centres and even whole historic cities in the 1980s (Marinos 2015) (Fig. 7).

In 1983, the creation of ZPPAUs (Zones de Protection du Patrimoine Architectural Urbain) allowed the state to extend the scope of protected areas and give more responsibility to local communities. In 1993, the scope of ZPPAUs was extended to the landscape thanks to a law on the protection and development of landscapes, thus adding the 'P (paysage)' to the acronym ZPPAUP. In 2010, ZPPAUPs were transformed into areas of

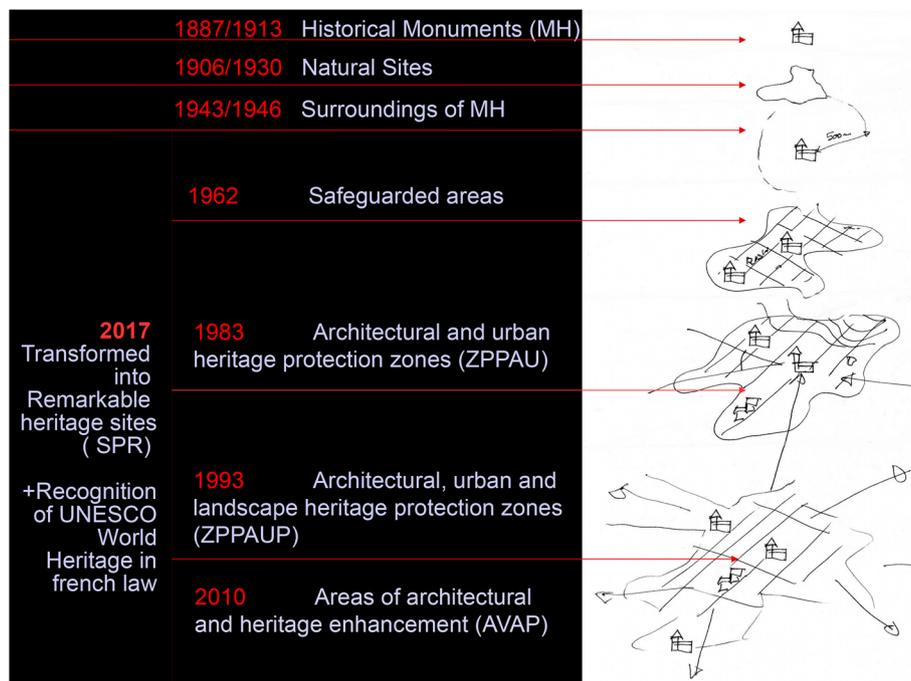


Fig. 7 Table summarising the evolution of heritage protection laws in France: from historical monuments (object) to landscapes and inhabited territories (Source: Alain Marinós)

development of architectural and heritage (AVAPs), thus representing new international protection theories integrated into French law, including new thoughts on environmental issues and sustainable development.

Finally, a law enacted on 7 July 2016 relating to the freedom of creation, architecture and heritage (known as the LCAP law) simplified the system by merging the ‘secteurs sauvegardés’ (historic districts); ZPPAUs, ZPPAUPs and AVAPs into a single category called ‘sites patrimonial remarquable’ (remarkable heritage sites) or SPRs (Site patrimonial remarquable de France 2021). However, this recategorisation did not erase their unique regulations, which remained applicable pending a transformation into a ‘Plan de Sauvegarde et de Mise en Valeur’ (PSMV, Safeguarding and Enhancement Plan for Historic Districts) or a ‘Plan de Valorisation de l’Architecture et du Patrimoine’ (PVAP, Enhancement Plan of Architecture and Heritage) (Fig. 8).

Originally initiated by the state, in a ‘top-down’ movement, the protection and enhancement of the heritage is extending its influence in the territories, fuelled by an increasingly strong interest among the general population. The demand for protection is increasingly coming from the local level in a ‘bottom-up’ movement with a social or even societal character.

Over the past 20 years, numerous heritage protection plans and ‘extensions of protection’ under French

laws have affected the Loire Valley site and its buffer zone and other areas in the vicinity. Some, such as the revision of the Safeguarding and Enhancement Plan (PSMV) for Tours, Orléans, Chinon and Saumur, have been particularly notable. Several natural sites and remarkable heritage sites, notably that of Angers in the Maine-et-Loire department, have been created. They have all benefited from the general interest in world heritage and the reflections developed in this framework.

The experience gained in the Loire Valley, following its inclusion on the World Heritage List, is particularly interesting in light of these ongoing developments in the French legislative system regarding the protection and promotion of heritage. The way in which the landscapes are managed and the transregional and interministerial cooperative system that has been put in place extend the adopted guidelines from specific objects to landscapes and even inhabited areas.

A meaningful step has recently been taken: France has just recognised UNESCO’s World Heritage program in French law. Indeed, the 29 March 2017 decree on world heritage, historic monuments and remarkable heritage sites was published in the JO of 31 March 2017 as an application of the law of 7 July 2016 on the freedom of creation, architecture and heritage (LCAP). The law includes several provisions for properties listed as

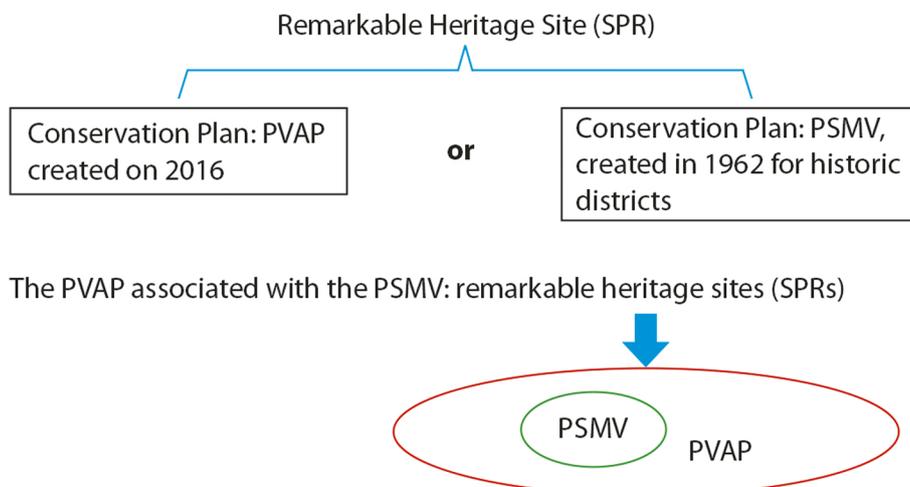


Fig. 8 The two types of protection and management plans for markable heritage sites (Source: Peng 2020)

UNESCO World Heritage Sites. The text specifies in particular that ‘to ensure the preservation of the OUV of the properties recognised as World Heritage Sites, the state and the local authorities or any groupings thereof shall protect these properties and, where appropriate, all or part of their buffer zone’.

These protected areas created in the French legal system are the main tools for protecting cultural landscapes, and they are defined and illustrated in local urban planning documents such as local urban plans (PLUs) and territorial coherence plans (SCoTs), in which the overall orientations, action programs and pilot projects, promoted by the coordinating mechanism of the Loire Valley, are integrated.

7 Implementing numerous new projects since 2000

The inscription of the Val de Loire as a World Heritage Site has encouraged interregional cooperation and the launching of revitalisation projects. Common enthusiasm has generated and facilitated the dynamic development of cultural, environmental, social and economic projects with a view to sustainable development.

The projects have been carried out in accordance with decisions and programs adopted at each year’s territorial conference. The conference of the RDV Val de Loire offers an opportunity for presenting and exchanging information regarding the projects being implemented. In the overall cooperative management mode introduced above, in association with the relevant laws, several projects have been initiated and implemented, jointly or separately, by the MVL, regional governments, national departments and local authorities.

Many improvements have been made since 2000; for example, riverbank rehabilitation programs across the site have improved the navigability of the riverbank and the availability of leisure activities, public spaces have been improved, new facilities highlighting local cultural and historic characteristics have been built, tourism development has been integrated with boat trips and agricultural landscapes (Vineyard routes: Darnay 2018; Yengue and Robert 2018), and historic centres have been revitalised.

Among the exemplary actions developed within this framework, the ‘Loire à Vélo’ (Loire by Bicycle) initiative, which was the first major marked and secured cycling route created in France, is definitely proof of the success that follows from the joint efforts of local authorities (ATLAS Cartographique 2005; Orléans Métropole 2005). Indeed, the project, initiated in 1995 by the two regions concerned, has developed considerably since the inclusion of the site on the World Heritage List, forming the western section of the Eurovélo 6 cycling route.

This cycling route, which runs more than 800 km through the Loire Valley site and even beyond, is one of the most beautiful cycling routes in France. Some lanes were newly constructed, and some were combined with existing vehicle roads. Although not all areas of the riverbank are equipped with cycleways and in certain places, the cycleway still needs to be improved, there is currently an almost continuous cycleway through the Loire Valley. It is a unique, widely used, and accessible route that promotes and facilitates cycling trips. It strongly contributes to the reputation of the area in France, in Europe and at the world level (Fig. 9).

After more than 20 years of the Loire Valley’s inclusion on the World Heritage List, this long-term strategy of

communication, information and consultation has borne fruit and proved to be very effective. The efforts of local inhabitants, communities and associations (NGOs) have improved the tourist offerings and the living environment, showing that many local initiatives rely the actions of the government.

Many local companies have adopted a Loire Valley identity. The local universities in Tours, Orleans and Angers (and even others further away) are increasing their offerings on various themes of interest related to the Loire Valley. A (national) association of French World Heritage properties has even been created following the initiative of Senator Yves Dauge, special advisor to the UNESCO World Heritage Centre and one of the main initiators of the Loire Valley's inscription.

Moreover, the communication and exchange work carried out by the MVL has enabled local authorities to measure the evolution of interest in the sites and actions carried out. The whole coordinating mechanism offers valuable help in developing strategies and action programs.

In 2005, the Val de Loire Mission Report listed 34 projects already launched by local authorities at different levels as examples of initiatives relating to the progress in the protection of the site, including the 'Inventory of Important Elements of the Waterfront on the Loire and its Tributaries', the 'Protection Zone of Saumur and its Extension', and the 'Angers Loire Metropole: Heritage Landscapes and Tourist issues'. This movement continued in the following years to include projects such as the restoration of old river ports in small towns and villages (Fig. 10).

One of the projects, the Loire Festival of Orléans, has brought a dynamic revival of the city's waterfront. Orléans organises this festival every two years at the end of September, gathering various boats on the river and scheduling interesting cultural events. As a result, the

local authorities developed a series of restoration and rehabilitation projects along the Loire, such as the reopening of the Orleans Lock to promote the continuity of the Orleans Canal and the development of tourism (Cayla 2012; Mauret-Cribellier 2015). In addition, the projects and actions concerned were integrated into local urban planning documents, such as the SCoTs, PLUs and ZPPAUPs (Figs. 11, 12 and 13).

In addition, the Orléans metropole launched the 'Urban Natural Park' project in 2017 to create an urban space with 'nature + sports' by using wetlands and green areas near the riverbank. The city of Tours created a historic district in 1973 and approved the PSMV in 1983. The local government has revised the borders of certain PSMV areas since 2013 in order to launch a new historic centre revitalisation project.

Local authorities began a restoration program at the Fortress of Chinon, which was partly destroyed and abandoned for a long time, in 2003. the bulk of the restoration work was carried out from 2008 to 2013 to recover the 15th-century façade of the monumental fortified complex. The rehabilitation of the port and other projects for the development of cultural and leisure activities in riverbank areas continued to progress in cities and towns along the Loire Valley, such as Chalonnes-sur-Loire, Angers, Saumur, Chinon, Tours, Amboise, and Blois. There are also ongoing projects promoting leisure activities related to navigation in the Loire Valley (Revue 303 2001, 2012, 2020).

Within the Loire Valley, the Loire-Anjou-Touraine Regional Natural Park covers a large area of forest and farmland, including important ecological corridors in the national project for environmental protection: the 'green and blue network' (Trame verte et bleue). The park organises training and meeting programs with a view to strengthening coordination and cooperation among local stakeholders. It encourages local communities to



Fig. 9 Cycleway along the Loire, Orléans, 2014 (Source: Liang Peng)

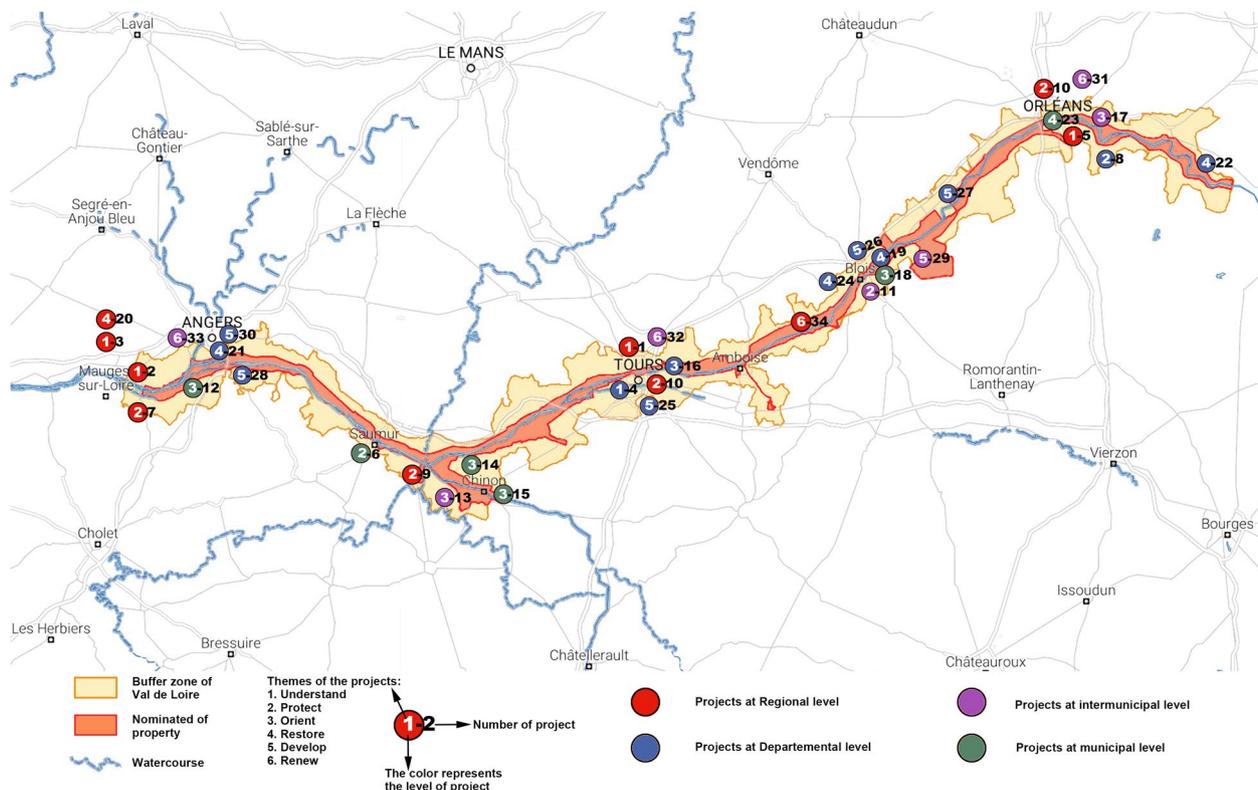


Fig. 10 Location of 34 projects in the Val de Loire site (when the project involves more than one municipality, the mark for the project on the map indicates the location of the institution in charge of the project instead of the location of the project itself), (Source: Peng 2020). Reference: Cahier du Val de Loire n°3 (2005), background map: mapbox

take steps to collect rainwater and engage in collective waste management and has launched educational programs on urban planning, natural and cultural heritage, and landscapes for the young generation in order to raise their awareness of their living environment (Gorgeu and Jenkins 1995; Mairies-Conseils, Fédération des parcs naturels régionaux de France 1995).

With regard to agriculture, the park managers have proposed setting up an information network on local agricultural products and short-sale circuits at farms and produce stores that promotes the sale of local products and ensures income for farmers. This proposal urges local authorities to launch theoretical and practical training in organic farming, as well as research and meetings on alternative practices to the use of chemicals. Moreover, the park managers have created a specific product label to promote local agricultural and artisanal products. In addition, to improve the employment situation, the park managers support actions to implement training and specific operations regarding traditional heritage know-how.

Overall, the regional natural park is not a simple way to protect cultural landscapes, nature or heritage areas; it is a modality of sustainable development that seeks a balance between economic needs and the protection of the

environment. Its various orientations and actions related to sustainable development promote the protection and management of cultural landscapes.

The role of the transregional coordinating mechanism is essential for the development and implementation of these projects by providing an overall perspective. From the dynamic activities implemented by local authorities, we can see that these restorations and revitalisations of historic cities and districts reflect not only an international impetus regarding world heritage but also France's inherent emphasis on and motivation for heritage protection and enhancement. Although there are still some coordination problems in the development of conservation plans, the current protection and enhancement system can provide a valuable reference for other countries and heritage sites.

8 Conclusion

Modern urban planning involves trying to find balance different interests, such as economic development, land use, and the protection of natural and cultural resources. Policies regarding the protection of cultural landscapes are measures aimed at safeguarding cultural and natural



Fig. 11 Loire Festival in September, Orléans, 2007 (Source: Alain Marinos)

heritage, protecting biodiversity, enhancing the living environment, preserving green spaces in urban and rural development, and promoting sustainable development.

Therefore, the protection of the cultural landscape is not simply about the protection of heritage; it concerns improving the quality of life and balancing the development and protection of spaces as part of an overall vision of sustainable development.

Generally, the creation of a transregional protection and management system for a heritage site involves the following three main steps seen in the undertaking discussed here:

- Establish an exclusive institution (MVL) as an exchange platform that is responsible for piloting the programs of the Loire Valley within the UNESCO's World Heritage framework and organising and coordinating stakeholders in the area of the site;
- Construct a transregional cooperation system by organising all the relevant stakeholders and developing different concertation approaches to formulate guidelines for decision-making, exchanging information and experiences, and monitoring projects;
- Integrate various viewpoints and actions into the urban planning regulations enforced by local authorities.

As mentioned above, the committees established following the foundation of the MVL, and the framework of collaboration and concertation can serve as

references for other transregional sites to build a cooperative management system.

The transregional management mechanism of this heritage site reveals the great challenges faced by local authorities. To properly manage a heritage site, especially a living cultural heritage landscape, it is necessary to employ a systematic and comprehensive management mode to control decisions and strategies for the protection and development of the site. In this system, the MVL coordinating institution, the local authorities and services, and other stakeholders play leading roles in the development of the cultural landscapes and the implementation of projects. In addition, the creation of an effective concertation mechanism, including specific committees, advisory bodies and diversified sessions among stakeholders, is also a strategic area in the establishment of a cooperative framework.

Transregional cultural landscape management relies on not only the establishment of cooperation and communication systems at the global and local levels but also the formulation and implementation of a management plan for the site that is integrated into urban planning documents.

Here, it must be emphasised that having a management plan is essential, but this plan will be a useless tool if it is not carefully crafted and implemented, as even the best tool in the world requires know-how to make it efficient. Too many management plans today are just 'beautiful hats' and are difficult to carry out in real life. The Loire Valley management plan has been

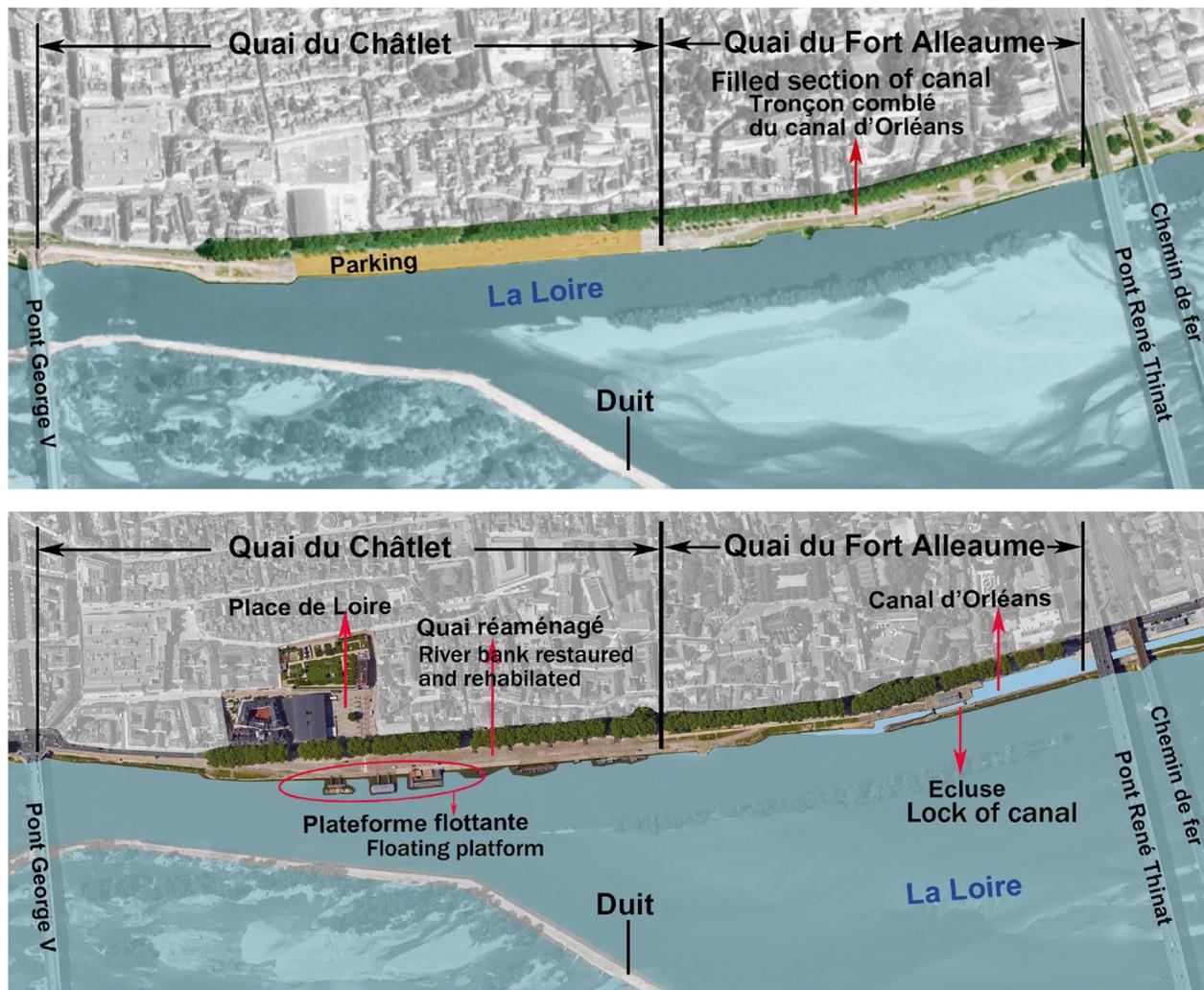


Fig. 12 Top: Public spaces on the quays along the Loire between the George V Bridge and the René Thinat Bridge, Historic centre of Orléans, 2002. Bottom: City riverbanks after the restoration and rehabilitation project, 2016 (Source: Peng 2020). Background map: Google Earth



Fig. 13 Top and bottom images on the right: The riverbank and canal of Orléans after the restoration and rehabilitation project, 2017 (Source: Liang Peng)

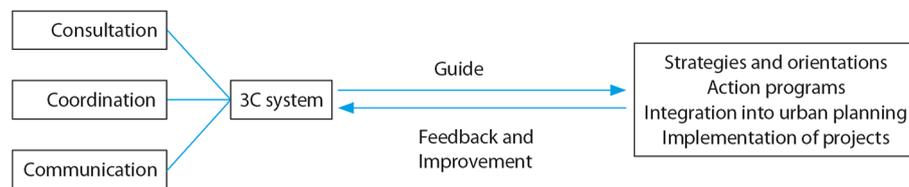


Fig. 14 A self-improving management system (Source: Liang Peng and Alain Marinos)

an efficient and effective tool in the long term because it works as part of a consultation–coordination–communication process. Heritage is considered here to be a process and not exclusively a product.

This 3C system (consultation–coordination–communication) introduced above is not limited to the policy (upstream management) level; it constitutes a sustainable management system through the exchange of information among all stakeholders at different levels. The whole process promotes the implementation of guidelines and improves development strategies according to feedback. We conclude that through the construction and operation of the coordinating mechanism, a self-improving circular management system is formed (Fig. 14).

In the 20 years since the registration of the Loire Valley site, the management system proposed by Mr. Yves Dauge has been continuously developed and improved in terms of the way coordination is approached and the way projects are implemented. This management system works based on the MVL and operates through the union of all municipalities involved to provide support at the practical level. As a long-term development model, this step-by-step form of progress has become a relatively complete 3C system for managing evolving cultural landscapes.

In conclusion, the composition and organisation of the Loire Valley management system have extensive applicative value. This article provides a reference regarding to the cooperation, protection and management of trans-regional landscape development and protection. By organising all stakeholders and establishing a periodic long-term communication mechanism, the management system can comprise a top-down policy-oriented system and a bottom-up multiparty participatory system that are continuously improving through the exchange of information and experience.

Regardless, ‘living and evolving’ are the important characteristics of cultural landscapes, and local projects aimed at enhancing the value of cultural landscapes are otherwise characterised by a complicated process and long delays.

Appendix

1. Sites classés et inscrits: These classified and registered sites were established by the national laws of April 21, 1906 and May 2, 1930. This category of protected sites has been incorporated into the ‘Environment Code’ (Code de l’Environnement) since the promulgation of the code in 2000. It is a list of natural monuments and sites, established at the department administration level, and aims at preserving and conserving the areas that present a general artistic, historical, scientific, cultural or aesthetic interest; the registered sites can be classified according to certain criteria (Article L341-1, Article L341-2, Code de l’Environnement).
2. ZPPAUP: Zone de Protection du Patrimoine Architectural, Urbain et Paysager (protection zone for architectural, urban and landscape heritage); AVAP: Aire de mise en valeur de l’architecture et du paysage (areas for enhancing the value of architecture and heritage); Site patrimonial remarquable: Remarkable heritage site. The title ‘AVAP’ replaced ‘ZPPAUP’ in 2010; then, in 2016, AVAP was replaced by the new category ‘remarkable heritage site’. The documents already established (ZPPAUP and AVAP) are still in use but will be gradually replaced.
3. CAUE is a public service created on the initiative of local officials for consultation between the actors involved in the production and management of rural and urban space. It is an advisory body for individuals, elected officials and state services, and construction and living environment experts.
4. It should be noted that the doctoral dissertation was defended in 2020, so the analysis of the management structure and document resources are based on the information collected before 2020.

Abbreviations

ABF: Architecte des bâtiments de France (Association of architects and urban planners of France); AVAP: Aires de mise en valeur de l’architecture et du patrimoine (Areas of architecture and heritage development); CAUE: Conseil d’architecture, d’urbanisme et de l’environnement (Committee of

architecture, urbanism and the environment); CGEDD: Conseil général de l'environnement et du développement durable (General committee for the environment and sustainable development); DRAC: Direction régionale des Affaires culturelles (Regional service of culture); DREAL: Direction régionale de l'environnement, de l'aménagement et du logement (Regional service of the environment, planning and housing); DDT: Direction du développement (Department of territory development); ICOMOS: International Council on Monuments and Sites; ICCROM: International Centre for the Study of the Preservation and Restoration of Cultural Property; IDP: Inspection des patrimoines (Association for the inspection of heritage); IFLA: International Federation of Landscape Architects; IGPC: Inventaire Général du Patrimoine Culturel (General inventory of cultural heritage); IUCN: International Union for the Conservation of Nature; LCAP: Loi 7 Juillet 2016 Liberté de la Création, Architecture et Patrimoine (July 7, 2016 Law: Freedom of Creation, Architecture and Heritage); MVL: Mission Val de Loire; OUV: Outstanding Universal Value, UNESCO; PLU: Plan Local d'Urbanisme (Local urban plan); PNR: Parc naturel régional (Regional natural park); PSMV: Plan de sauvegarde et de mise en valeur (Safeguarding and enhancement plan for Historic districts); PVAP: Plan de valorisation de l'architecture et du patrimoine (Enhancement plan of architecture and heritage); RDV: Rendez-vous (Union and meeting); SCot: Schéma de cohérence territoriale (Territorial coherence plan); SPPF: Société pour la Protection des Paysages de la France (Society for the protection of the landscapes of France); SPR: Site patrimonial remarquable (Remarkable heritage site); STAP: Services territoriaux de l'architecture et du patrimoine (Territorial services of architecture and heritage); UDAP: Unité départementale de l'architecture et du patrimoine (Departmental unit of architecture and heritage); UNESCO: United Nations Educational, Scientific and Cultural Organisation; WHC: World heritage centre; ZPPAUP: Zone de protection du patrimoine architectural, urbain et paysager (Protection zone for architectural, urban and landscape heritage); ZPPAU: Zone de Protection du Patrimoine Architectural Urbain (Protection zone for architectural, urban heritage).

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Authors' contributions

This article is a part of the Ph.D thesis of Liang Peng, summarising the key points and results of her research which has not been published yet. As an expert in the field of heritage protection and urban planning of France, M. Alain Marinos is in charge of the review for the whole article, he gave remarks and recommendations for the correction, he added some of the French policy part and the conclusion part in this article, he provided also photos and figures, his reviews and corrections play an important role to improve the quality of the article. The author(s) read and approved the final manuscript.

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Declarations

Competing interests

The authors declare that they have no competing interests.

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