

A Short History of Urban Forestry in Europe

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Abstract: In Europe, more attention is being given to the concept of urban forestry. However, it is applied more to forests under a strong urban influence than to urban greenspace at large. Urban forests especially differ from other forests in terms of the dominance of local actors in policy-making processes to determine which functions the forests should fulfill. As large parts of Europe have become urbanized, these forests are extremely important particularly as pressures on nearby recreation settings and on Europe's urban forests are high.

In the context of a European study of urban forest policy-making, a tentative overview of urban forestry history is presented. In spite of existing cultural, socio-economic and political differences between countries and cities, some general developments can be described. Over time, more forests have become incorporated and planted in and near urban areas, with a growing number being opened to the public. Urban forest policy-making processes have become more complex, involving a larger number of people. The role of urban forests in the development of forestry practice and science deserves special mention.

Over the past decades, the topic of urban forestry has been given increased attention in Europe. Many will say that the old continent has a long standing tradition in urban greenspace planning and management, which is true. But unlike in North-America, the term 'urban forestry' and the theories and concepts for which it stands have not been frequently used.

Today's growing use and application of name and concept seem to be a logical consequence of continuing urbanization. A rather conservative estimate is that more than half of the world's population will live in cities by the year 2000 (24). When looking at Europe, it becomes clear that extensive parts of the continent are urban, and that a large majority of the Europeans today live in an urban setting (28, 29).

Urbanization has consequences for Europe's forests. Over the ages, rural landscapes, together with their forests, have become incorporated into urban areas. In addition a growing demand for nearby recreation settings has led to the establishment of new forests in or near urban areas. Urban forests differ from those in rural areas in terms of their intensive use and the high level of

public involvement in urban forest issues. The proximity of a forest to a large town creates special problems and opportunities for policy-makers and managers (21, 22).

The focus of European urban forestry is more on forests than on urban greenspace at large. Although the general idea of the 'North-American' approach that the complex of urban greenspace - from individual street tree to extensive urban fringe forests - should be seen as a whole (22), attention is more directed to forests in and near urban areas. Paris' Forêt de Saint-Germain and Fontainebleau, London's Epping Forest and Berlin's Grunewald are only a few famous and ancient examples of urban forests (30).

Until now, no substantial urban forestry research has been carried out on a comparative, European scale. However, policy-makers (and researchers) have started to become aware of the benefits of comparative urban forestry studies in the context of European cooperation and unification, and in the tradition of 'learning from others'. Afforestation programs are taking place in most European countries, and frequently new forests are being established in or near urban areas. As a consequence, questions have arisen such as: how should this be done; which mistakes can be avoided; and which opportunities exist regarding financing or increasing public involvement? The research project 'Urban forestry: overview and analysis of European urban forest policies' should be seen in this context. This project focuses on analyzing urban forest policy-making processes and results in larger European cities (cities with more than 100,000 inhabitants) and is being carried out by the European Forest Institute and the Wageningen Agricultural University, with support from the Dutch Ministry of Agriculture, Nature management and Fisheries.

The study's main focus is on contemporary urban forest policy-making in Europe's larger cities.

This article gives an impression of the first stage of the work, i.e. a tentative historical overview of European urban forestry history. One has to know the past in order to understand the present, and this is especially the case in (urban) forestry.

Problem Description

Europe's urban forests experience heavy societal pressures. The still continuing process of urbanization has led to higher pressures on existing forests for recreational uses, to replace forestry by other land uses, and increased demand for new (urban) forests. The impact of this development is increased by the general growth of per capita income, and an increase in leisure time and mobility (2, 33), which has led to an increased and more varied demand for recreational opportunities. This demand is being expressed in democratic policy processes (3, 12). A consequence of this is that institutions responsible for urban forests are starting to experience serious challenges to their management decisions (18). A last aspect to mention when looking at the 'demand' side in urban forestry is the altered attitude towards nature and the environment. People are more aware of environmental issues and express a demand for closer-to-nature forest management (12, 31).

What is the situation when looking at the 'resource' side of the spectrum? Urban forests are under threat by various negative urban influences, of which environmental pollution is perhaps the most significant (6). An additional development is the tendency for governmental organizations to reconsider their expenses and change priorities, now that it has become obvious that economic growth is not limitless. In practice, reconsidering policy priorities often means that less money is available for planning and management of urban forests (22, 32).

As a result of these general developments, urban forests are under heavy pressures. This is the context in which Europe's urban forest policy-makers, planners and managers find themselves today.

The Concept of Urban Forests

Forests are ecosystems in which trees are the

determining aspect (8), but how can the 'urban' character of a forest be determined? Urban forests can be distinguished by looking at various characteristics (16). First of all, they are to be found in or near densely-built urban areas, and most have a high density of recreational facilities. Urban forests are often rather fragmented in size and ownership. Their most important feature becomes clear when looking at the past and present of Europe's urban forests and the role of local actors.

From a historical perspective, the important role that the local public and government (as their representative) have played in urban forest use, policy-making and management is striking. Urban forests have only been able to survive the turmoil of the ages because of the involvement and protection by the local public and policy-makers. As early as during the late Middle Ages, for example, the Eilenriede forest near Hannover was protected from illegal use by a special 'Landwehr' that operated in the name of the citizens of Hannover (14). In the 19th century, the Magistrate and people of Berlin were drawn into a conflict with the Prussian State over the use and ownership of the forests surrounding the city. The State was allowing timber production to determine the management or even selling of forests to urban developers. The people of Berlin wanted to use the forests for recreation. The Berliner Tageblatt and Berliner Volkszeitung managed to collect 30,000 signatures to support a protest letter against the destruction of Grunewald by the State (6). A more recent example is the case of the Oslomarka forest area near Oslo. In 1946, 30,000 inhabitants of Oslo marched in the streets to protest against the construction of a high voltage cable through the forest (1).

The urban forest policy-making arena today is largely dominated by local actors striving to accomplish their objectives, even when the urban forest in question is state-owned. Because of the commitment of the local public to 'their' urban forests (18) and the presence of a large potential of users with different values and perceptions, social conflicts involving urban forests are frequent and diverse.

From a systems perspective, the dynamics of urban forest policy processes are generally high

in terms of reactions of the policy system to changing inputs and conditions. The specific urban forest policy instrument mix includes a higher monetary input per hectare and a wide range of public, consultation and participation (16).

The concept of urban forests, with special emphasis on the dominance of local actors, has served as the foundation for this study. It uses a systematic framework for analyzing urban forest policy processes: the Urban Forest Policy Model (UFPM; Fig. 1). The historical study - of which the main results are presented here - has mainly consisted of analysis of both primary and secondary literature sources. Focus has been on 28 larger European cities (Table 1) which were selected at the start of this project. (16).

The description and synthesis of European urban forestry history has been divided into the following main topics:

- *Urban forestry context:* socio-economic and political (with emphasis on the development of cities); cultural (the changing attitude towards nature); and biophysical (general urban greenspace history) environment.
- *General aspects of urban forestry history.*
- *Actors involved in urban forestry:* initiative and financing for new urban forests, ownership, policy-making, management, use.
- *Contents of urban forest policies.*
- *Urban forest management.*
- *Urban forest conflicts.*

Aspects of European Urban Forestry History

Not much information is available on the specific topic of the history of Europe's urban forests. Most of the existing comparative historical overviews have focused on parks and street trees, and on aspects of garden and landscape architecture (14, 19). In some cases more specific information is available on local or national levels. The following aspects of European urban forestry history form a synthesis on a more general level and uses historical case-studies of some specific urban forests. The information should be seen as tentative and providing a general overview which

is largely derived from Nelissen (23), Hennebo (14), Beckers (2), van Rooijen (27), Lawrence (19) and Konijnendijk (16).

Historical context of European urban forestry.

With the domestication of fire as an important first incentive, the development of agriculture led to significant changes in human society (11). First of all, social stratification occurred, resulting in feudal societies where power was in the hands of a few (monarchs, clergy). As agriculture implied settling down, a growth of human population and the origin of settlements for defense, market, political and religious purposes led to the development of cities. As the power of the cities and their inhabitants became greater; a new powerful class within society consisting of rich civilians emerged. This led to power struggles between the feudal rulers and the new powerful class. Changes in power relationships slowly occurred, and a process of democratization got under way. A growing number of people were able to express their wishes (successfully) for example, for facilities such as greenspace. The third ecological transformation (after the domestication of fire and the rise of agriculture) was the Industrial Revolution, set off by the discovery of fossil fuels (26). It led to a further expansion of cities as centers of industrialization. Expansion of cities was seldom regulated by local or national governments, which started to increase their power but had not yet obtained a strong enough position and organization. The first industrial cities were often overcrowded and unsanitary, and the distance between the average city dweller and nature had become greater.

Starting in the second half of the 19th century, government interference did increase. Urban planning was carried out in a more structured and organized way, and governments started to provide a growing number of facilities and services. At first this was stimulated by the upper class, but later the well-being of all citizens was taken into account. Welfare and leisure time increased for society as a whole, and more facilities for recreation were requested. Urban and national governments, therefore, opened more urban greenspace to the public, and established new green areas in and

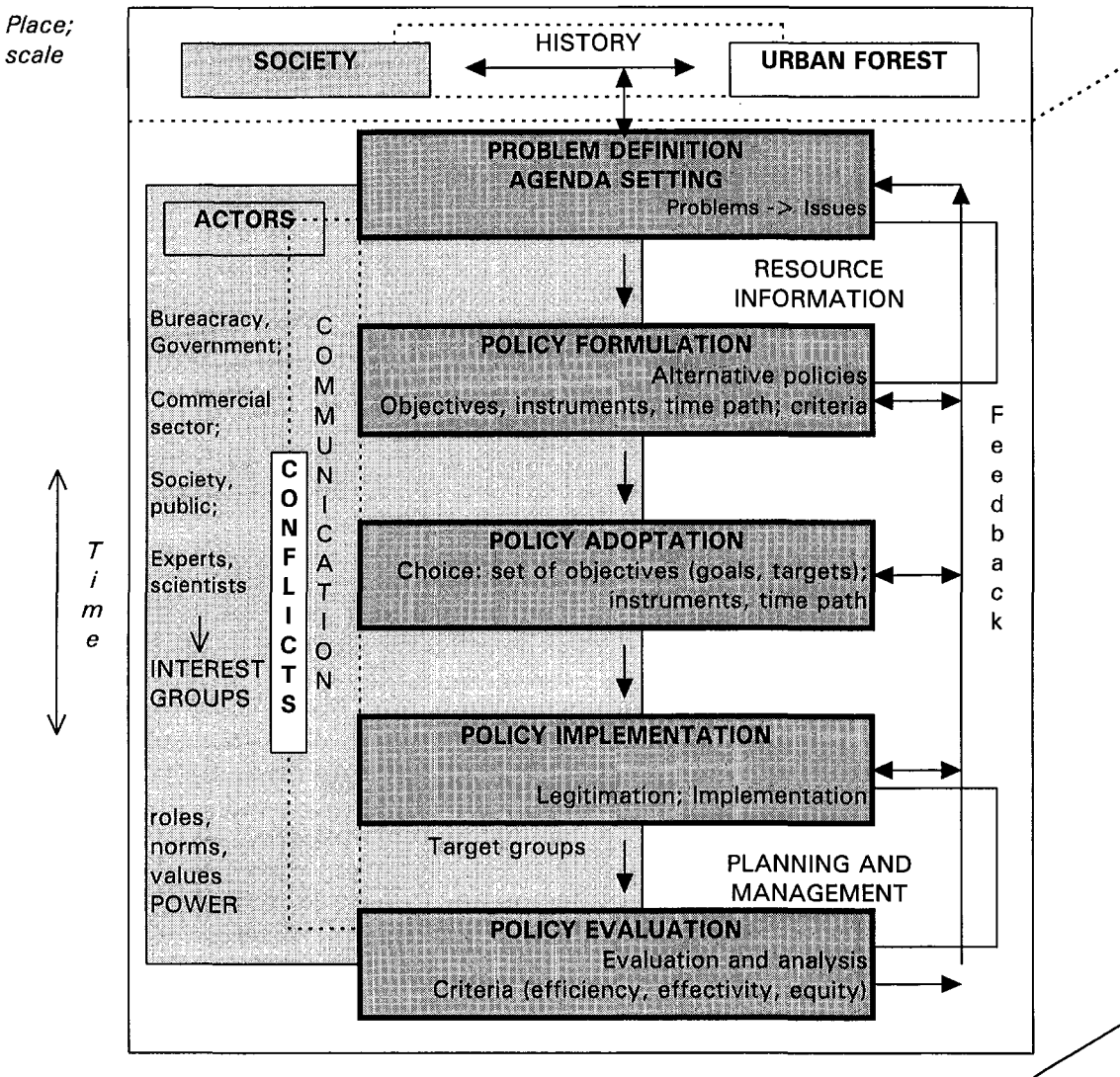


Figure 1. The Urban Forest Policy Model (UFPM): a model perspective of urban forest policy processes.

near cities. Demands for green in the city became stronger and more diverse, with a higher appreciation for nature and natural processes.

General aspects of urban forestry history. Urban forests can be seen as one of the first types of urban green, as many European cities had

Table 1. Selected countries and cities. *C.I.T. = Countries in Transition.

European Region	Selected Countries	Selected Cities
NORTH	Finland	Helsinki, Joensuu
	Norway	Oslo, Bergen
	Denmark	Copenhagen, Odense
CENTRAL	United Kingdom	London, Edinburgh
	Germany	Berlin, Freiburg
	Netherlands	Amsterdam, Arnhem
	France	Paris, Nancy
SOUTH	Portugal	Lisbon, Porto
	Italy	Rome, Padua
	Greece	Athens, Thessaloniki
C.I.T.*	Russia	Moscow, St. Petersburg
	Poland	Warsaw, Gdansk
	Czech Republic	Prague, Brno
	Romania	Bucharest, Brasov

forests close to their walls throughout their development. Nature was always nearby, and the forests were used for a variety of purposes. Gradually, many of these forests, often with a primeval origin, became incorporated into expanding cities (see Fig. 2). The next step was that many of these forests were transformed for human recreational use, and thus became park forests or parks.

Urban forestry actors. Initially, ownership of Europe's urban forests was largely in the hands of feudal rulers and clergy. Later, a new powerful class of bourgeoisie developed which was able to establish its own estate forests (see Fig. 3). Public ownership in a true sense (ownership by monarchs could not really be regarded as for 'public benefit') on the local as well as national level also grew in importance.

Initiative and financing for establishing urban forests largely followed the same trend as ownership. Feudal rulers and the upper-class were first responsible for this, followed by industrialists



Figure 2. Urban forests: where the forest meets the city. Thessaloniki in Greece (picture by Malaika Fuchs).

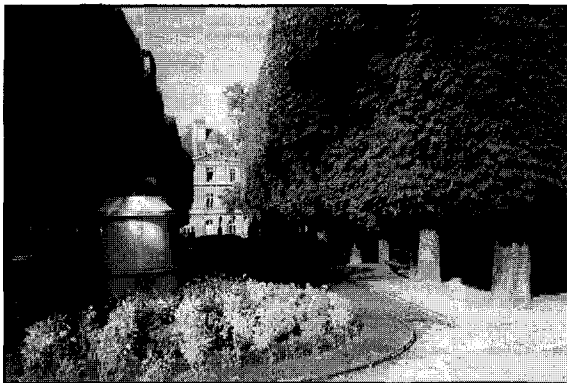


Figure 3. Many of Europe's urban forests originate from estates which were established by royalty, nobility and bourgeoisie. Jardin du Luxembourg in Paris (picture by author).

and other individuals with the public at large in mind. From the second half of the 19th century, local and national governments in many cases took the initiative.

With the growth of government involvement in private affairs, the amount of public urban forests also increased as more people expressed the demand for recreation facilities. Urban forest policy-making became a complex process, involving a wide variety of groups, with a dominant role of local governments and the public. Management followed the trend of higher government involvement. Local and national public forest and green services often became responsible for urban forests, and forestry

experts became more involved in their management.

Urban forest policies. At first policies were largely directed toward providing feudal rulers with hunting, recreational and timber production opportunities, with power as the most important instrument (20) to achieve them. Starting in the 17th century, recreation became important for a large group in society, as did urban forests as a pleasant living environment and a means of offering prestige. The actual establishment of new urban forests - involving time and money - was the most important policy goal (20). The importance of wood production further increased, but recreation and environmental uses took over during the 20th century. As more people had become involved in urban forest use and policy-making, the set of policy instruments was extended by means of public participation and consultation. The forestry concepts of sustainability and multiple use gradually became accepted.

Urban forest management. Management practices followed the development of policies. Over the ages, more structured and long-term management of urban forests evolved, stimulated by the development of forestry practice and science during the 18th century. In fact, urban forests are believed to have played an important part in the development of forestry, as places where new tree species were 'tested' and where new concepts - such as that of multiple use under growing public pressure - were introduced. This aspect will be given more attention later. Public involvement often led to management problems, as the cutting of trees for regeneration purposes in many cases evoked severe protests as the specific character of the forests was believed to be harmed by forestry practices. Today's ancient European forests such as Epping Forest (30) and Jaegersborg (7) often have an unbalanced age class distribution dominated by old and decaying trees due to objections to forest management.

Social conflicts over urban forests. Social conflicts have been an important aspect in urban forestry policy development. Conflicts have mostly concerned different urban forest uses, from the

clash between feudal rulers and population over the rights to access forests, to the complex of conflicts today. Recreation, wood production, nature conservation, housing and other types of urban development have been among the most significant conflicting uses.

Important elements of European urban forestry history. At the end of this short description of Europe's urban forestry history, some aspects deserve special mentioning. First of all, the cultural and political differences between different European countries (and even cities) have to be stressed. These are an important cause for historical and contemporary differences concerning the use, policy-making, design and management in urban forestry. Although some form of cultural unity emerged starting from the 18th century because of trade, improved communication and transportation (19), distinct differences between the countries and regions still persist. In Denmark, Norway, Finland and Germany, for example, essential decision power is left to the regional policy-making level, while in the former communist states a strong centralized way of policy-making still exists. Other major differences include the variety in urban forest ownership (in some countries public ownership dominates, in others private) and cultural differences (such as attitudes towards nature and forests in particular), the most popular types of recreation, and the traditional rights of access to the forests. Because of these political and cultural differences - as well as differences in socio-economic developments - the description on urban forestry history as given before should be seen as generalized.

The second aspect to be given extra attention is the role of urban forests in the development of forestry practice and science. During the 19th and especially 20th century, interest groups and the public at large started to question the activities of forestry, which they saw as mainly focused on wood production and as harmful to other functions (13). In this discussion, urban forests played an important role. These forests, being so near to the urban public, often were the first to have conflicts emerge between traditional forestry and people

favoring other functions. Major clashes occurred between public and interest groups on one side, and foresters on the other. Examples are the urban forests of Fontainebleau (15), Grunewald (6) and Oslomarka (13, 25). These conflicts were primarily between forestry for wood production, and recreational and nature conservation functions. Conflicts seem to have been a direct incentive for the gradual acceptance of the concept of multiple use, with more focus on nature conservation and recreation. Urban forests often were 'pilot areas' to introduce new concepts. In the case of the Oslomarka, for example, the change of forestry practice there is believed to have triggered a similar development throughout Norway (10). Fontainebleau became the first nature reserve in Europe following conflicts between artists and nature conservationists and the French forest service (15).

Urban forests have played an additional important part in the development of modern forestry as new, exotic tree species were first 'tested' in urban forests such as Jaegersborg (7), Bois de Boulogne (4) and Grunewald (6). During the 17th, 18th and 19th century, owners of estates often experimented with new tree species within their urban forest properties (5, 14). Finally, famous names from forestry can be found when studying urban forestry history - including those of Evelyn, Colbert, Quesnay, Pfeil and Hartig - which further emphasizes the special importance urban forests have had throughout forestry history at large.

Conclusion

The historical overview of urban forestry in Europe supports the concept of urban forestry being different from forestry in general. Policy processes are more complex, as a result of a larger number of actors involved, more substantial public involvement and higher systems dynamics.

When looking ahead to the future analysis of contemporary urban forest policy-making in Europe, the importance of the relationship between past and present emerges. The historical development of the specific characteristics of urban forestry, past policies and management, and traditions have to be taken into account. Urban

forests can be seen as the culmination of past policy-making, planning, use and especially management. Examples from all over Europe demonstrate the consequences past policies and management have had for today's policy-makers and managers. Epping Forest near London, for example, gradually lost its open spaces when grazing in the forest was stopped. A restoration of the typical character of Epping Forest was demanded, and those responsible for management started to make adjustments in their practices accordingly (30). In many of Europe's urban forests, the high percentage being old, decaying trees pose a major problem. This, and the unbalanced age class distribution, are a result of past management, as well as of public pressures not to cut the old trees.

Furthermore, recent developments in urban forestry are believed to be closely linked with the past. An example is the actual trend to establish new urban forests all over Europe. One of the major requirements for establishing new urban forests is - of course - substantial funding. Costs for purchasing urban land are often extremely high (21). In the Netherlands, a recent method to generate sufficient funding is that of planning so-called 'new estates', based upon the concept of 17th, 18th and 19th century estates. The idea is to let the private sector (companies, developers, individuals) provide the required funding for urban forest establishment which combines housing, company buildings and such with forests, agriculture and other types of land use. Of course, the Dutch government is searching for ways to guarantee that the new estates serve a public purpose, for example by opening a substantial part of them to the public (9).

Another 'lesson from the past' related to this concerns the involvement of local actors. Past successful protection of urban forests was often based upon the commitment of local inhabitants. It seems logical that new urban forests can only be successful (e.g. in terms of use) when the local population and government are intensely involved in their planning and management and when responsibilities are shared (17).

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