GARDEN CONSERVATION	**Craft Skills for Garden Conservation** - finding, developing and sharing best practice in garden conservation	
Title of the Unit:	**U5 – Trees in Climate Change in Historic Gardens**	Version no. 2 – 21.10.2024
Description:	Trees are important design elements and give parks and gardens structure. Trees have direct benefits for the site, the other plants and the people, e.g. by giving shade or enhancing the air quality. While trees needed limited care for many decades, many of them are for some years now a cause for concern or have already become patients in garden maintenance. Climate change with high temperatures, very low rainfall, sinking ground water levels or increasing storm events etc. has rapidly increased diseases and deaths of many trees – often the very old and the monument characteristic ones. This unit offers information and learning options related to: • Importance of trees for the cultural heritage of our parks and gardens in different epochs • Historical cultivation, planting and care techniques in the design with trees • Challenges in dealing with trees in climate change Modern practices and hands-on guidance will be given related to: • Mapping: How to use modern system of digital recording of the tree population in the park for understanding the historical intentions and development of the tree population • Tree inspection: How to examine the population of individual veteran trees and damaged trees • Reinforcement and revitalization: When and how to vitalize the sensitive tree population • Practical tree maintenance: Using visual analysis of the trees to help understand its condition for finding maintenance strategies • Plantings under trees: Improving site conditions by planting vegetation under veteran trees	
EQF Level:	**6.1**	

Learning Outcomes			
CSGC U-1	**Code**	**Competence**	
		Knowledge	**Skills**

Co-funded by the Erasmus+ Programme of the European Union

<table>
<tr><td rowspan="2">1.1
Trees as elements in historic garden design</td><td rowspan="2">U5 1.1</td><td colspan="2">Competence:
The participant can read trees as important design elements historic structures.</td></tr>
<tr><td>Knowledge:
The participant
• knows the role of trees in historic gardens, including their cultural, aesthetic, and ecological significance.</td><td>Skills:

The participant
• can identify and map trees in historic gardens and place them in a cultural, aesthetic and ecological context.</td></tr>
<tr><td rowspan="2">1.2
History of tree cultivation, current production and use</td><td rowspan="2">U5 1.2</td><td colspan="2">Competence:
The participant
• knows about the origins, times and reasons for planting different trees in historic parks and gardens, and can select, grow or source suitable trees for replanting.</td></tr>
<tr><td>Knowledge:
The participant
• has knowledge of historical and modern tree cultivation, planting, and maintenance techniques.</td><td>Skills:
The participant
• can source and select appropriate tree species for historic gardens, balancing ecological needs and heritage preservation.</td></tr>
<tr><td rowspan="2">1.3
The various forms of climate change and their impact on trees</td><td rowspan="2">U5 1.3</td><td colspan="2">Competence:
The participant
• understands that climate change can affect historic parks and gardens and their trees in a variety of ways and is able to identify, assess, monitor and map risks and ongoing developments</td></tr>
<tr><td>Knowledge:

The participant
• recognizes key climate change impacts on trees, including temperature shifts, drought, storms, and disease.</td><td>Skills:

• The participant
can carry out an appropriate risk assessment and</td></tr>
</table>

Co-funded by the Erasmus+ Programme of the European Union

			develop a suitable strategy for risk minimisation and preventive measures .
1.4 Climate adaptation and mitigation measures with trees	**U5 1.4**	Competence: The participant • Can make informed decisions, alone and as a part of a group, based on research, ethical considerations, and professional standards.	
		Knowledge: The participant • understands adaptation- and mitigation strategies for managing trees in changing climatic conditions, and their limitations in historic landscapes.	Skills: The participant • can evaluate and implement suitable strategies for climate adaptation and mitigation in tree management • can utilize modern tools and technologies for tree documentation, diagnosis, and care.
1.5 Practical tree care measures	**U5 1.5**	Competence: • can work independently and collaboratively to assess, maintain, and restore tree populations in historic gardens. • can communicate tree management strategies to stakeholders, including professionals, policymakers, and the public. • is aware of innovation and sustainability practices in tree conservation and climate adaptation.	
		Knowledge: • is familiar with research and best practices in tree conservation and management of trees in historic	Skills: • can apply appropriate maintenance and conservation methods, such as revitalization, reinforcement, and underplanting.

Co-funded by the Erasmus+ Programme of the European Union

		landscapes, like tree inspection, understorey planting and cutting techniques.	• can assess the health and risks of trees in historic gardens using mapping, inspection, and analysis techniques.

Co-funded by the Erasmus+ Programme of the European Union