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# The Trees of the Sacred Natural Sites of Zagori, NW Greece

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**ABSTRACT** *Cultural landscapes can often be identified by the presence of sacred trees which have been retained and can be recognised as distinctive veteran trees. The characteristics of these trees such as huge size and longevity give them an enduring presence in the landscape, while their conceptualisation as the 'domesticated' wild, transform them into symbols of spirituality and local history. In Zagori, NW Greece, trees gain sanctity by virtue of proximity or connection with sacred sites often associated with churches. In these sites, trees can grow into natural shapes as a result of strong taboos, which prevent use for private needs. There is an association between tree species and the nature of the sacred site: broadleaved oaks and maples are associated with outlying churches; plane trees are located in central squares, next to the church and provide a focal point for community life, while in cemeteries native evergreens are nowadays replaced by planted conifers. In the present day local communities appreciate sacred trees as living elements of their collective memory and local history.*

**KEY WORDS:** Cultural landscape, Sacred tree, Tree symbolism, Northern Pindos National Park, Vikos-Aoos National Forest

## 1. Introduction

Trees constitute essential components of the anthropogenic landscape and are living artefacts of local history and culture. People in rural societies value trees as vital assets, landmarks, markers of religious and public places and as objects of historic, social and symbolic interest (Read, 2000). Tree imagery incorporating elements of well-known examples of tree symbolism, for example, the *Cosmic Tree* (the 'axis mundi'), the *Tree of Life* (symbolising fertility and immortality) and the *Tree of Knowledge* (seen as a gate to other states of consciousness) finds living expression in remarkable trees (Cooper, 2004; Hageneder, 2001). Natural characteristics and qualities, such as stature, longevity, vitality and self-regenerative power support the conceptualisation of trees as representations of unity, continuity, social organisation and sanctity (Rival, 2001). Moreover, their impressive stature can dominate sacred landscapes, which are conceptualised as holy, venerated or consecrated and set aside for spiritual purposes (Verschuuren, Wild, McNeely, & Oviedo, 2010).

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In the ancient world, trees were worshipped as manifestations of the divine. Deities, nymphs and heroes of the classical world were connected to Nature, such that specific trees were dedicated to each deity; the oak, the most majestic of all trees was sacred to powerful Zeus, the fir to Pan, the maple to Phobos, a dreadful demon and companion to Ares, god of war, while the yew belonged to the Erinyes, goddesses of vengeance who punished evil-doers using yew poison (Baumann, 1993). Some of the most ancient nature deities include the Meliae, the manna ash nymphs, who protected flocks and the dryads, the oak nymphs, who lived and died with their trees (Hagedener, 2001).

Trees associated with a deity were considered sacred or haunted and were protected with religious respect. Sacrileges, that is, damage to the tree, risked supernatural punishment, while people who protected such trees were benefited (Letsas, 1989). Since Greek independence and the recognition of the Greek state (1830), folklorists following the continuity theory concentrated their work on trees on antecedent worship and demonology treating them as purely pagan survivals and potential proof of the nation's pedigree (Stewart, 1991). However, trees in contemporary life are conceptualised as elements of modern Greek culture rather than as fragments of a distant past and need to be understood in this context.

In mountainous Greece, sacred landscapes or Sacred Natural Sites (SNS) as proposed by Oviedo and Jeanrenaud (2007) are mostly characterised by the presence of outlying churches or icon stands accompanying mature trees (Stara, 2012). Churches and their trees are so closely intertwined that locals consider any old maiden tree to be an emblem of the sacred (Kyriakidou-Nestoros, 1989). Trees in the vicinity of churches are referred to in Greek literature as *sacred* ('iera' in Greek). Local people call them 'klisiastka' (literally those belonging to the Church) or 'vakufika', from the Turkish word 'vakuf', which signifies a bequest of which the income should be used for public benefit (Moutafchieva, 1988). Interestingly, these two words are used as synonyms in modern language and taken to mean 'consecrated'. Sacred status is associated with taboos against cutting with the penalty of supernatural punishment, which traditionally took the form of misfortune, disease or even death to the wrong-doers, their family and animals (Stara, Tsiakiris, & Wong, 2009). The power to dispense these supernatural punishments is attributed to the saint(s) to whom the church or site is dedicated, although such beliefs may also hark back to pre-Christian ideas of nature spirits that inhabit, haunt or take the form of mature trees (Philpot, 2004). Taboos prevent private exploitation, while controlled exploitation for the benefit of the entire community or cultural modification for ritual use was occasionally allowed.

Local beliefs, as described in this paper, have preserved many SNS and their associated trees to the present without the intervention of regional or national administrations (and in some cases in the face of the threat posed by state-sanctioned felling). In contrast, even though there are now landscape and heritage protection mechanisms available in Greece that could include sacred trees in their policies, these cannot yet be considered adequate or effective (Beriatos, 2012). The Ministry of Environment, Energy and Climate Change has taken the initiative to create a National Landscape Committee to develop a National Landscape Strategy and Action Plan (2012–2017) to protect, manage and plan Greece's landscapes (Sorotou, 2012). SNS and their trees should have a place in this strategy as cultural landscapes of special character, which express a unique sense of place, hold cultural values and are expressions of local identities that have the ability to tell the (his)story of the place (Antrop, 2005).

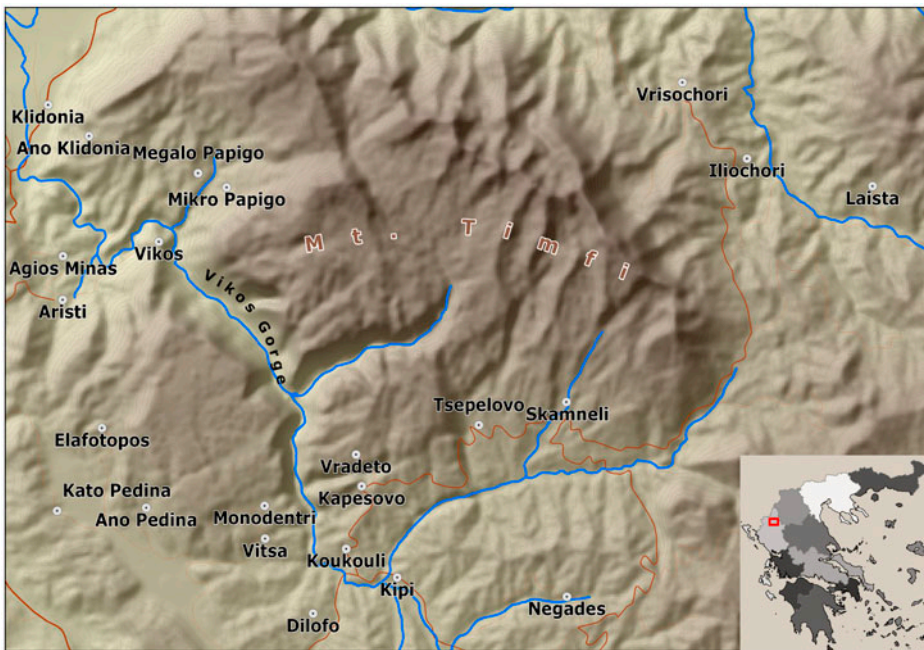
The aim of this study is to analyse how trees are conceptualised as markers of SNS, which species are used for this purpose and to describe their individual characteristics in the cultural landscape of Zagori, a mountainous area of special conservation importance, located in north-west Greece. This is, then, a case study of how SNS can be identified and contribute to the development of the National Landscape Strategy.

## 2. Materials and Methods

### 2.1. Description of the Study Area

Our study took place in 23 villages located in Zagori, a distinct anthropo-geographical unit, which surrounds the limestone Tymfi mountain (highest peak 2496 m) within the Pindos massif (see Figure 1). The area falls within the Vikos-Aoos National Forest and is included in the core of Northern Pindos National Park. It is well recognised and protected for its geological, biological and cultural diversity.

Human presence in the area dates back to at least 14 000 BC (Bailey, 1997) with significant evidence of transhumance settlements and anthropogenic alterations to the natural vegetation from third to fourth century BC (Vokotopoulou, 1986; Willis, 1992). During the sixteenth and seventeenth centuries small settlements coagulated into the present network of villages (Papageorgiou, 1995). These settlements have a defensive character with characteristic stone public buildings and luxurious private houses, while



**Figure 1.** Map of the study area showing location of study villages.

extensive pathways and impressive stone bridges connect important trade routes. These were all paid for by repatriations by male economic migrants from the fifteenth century.

Long human interaction with the land has resulted in a unique cultural landscape. Until the late 1960s, village lands typically comprised a mosaic of vegetable gardens, orchards, silvopastural woodlands, vineyards, arable terraces, extensive rangeland and anthropogenic grassland in the form of pseudo-alpine meadows on the mountain peaks. These were imposed on the natural vegetation of prickly oak (*Quercus coccifera*) scrubland on the lower limestones, forests of deciduous oaks, black pine (*Pinus nigra*), King Boris's fir (*Abies borisii-regis*) and stinking or Grecian juniper (*Juniperus foetidissima* and *J. excelsa*) woodlands at higher altitudes (Gerasimidis, Panagiotidis, Fotiadis, & Korakis, 2009).

From the beginning of the twentieth century and especially after the Second World War, rural depopulation resulted in the near abandonment of most villages followed by migration of young people to nearby towns, Athens or other European cities in search of employment and accompanying ageing of the remnant population. The consequences of abandonment are obvious in the landscape as large areas of grasslands and croplands have reverted to scrub and eventually to forest, smothering the agro-silvo-pastoral cultural landscapes of the area (Tsiakiris, Stara, Pantis, & Sgardelis, 2009; Zomeni, Tzanopoulos, & Pantis, 2008). Recently tourism has been an important new economic activity, which has slowly emerged as an additional income for locals attracting investment and inward migration from outside the area.

## 2.2. Methods

The methods used in our study are multidisciplinary and combine techniques familiar to social scientists, ethnobotanists and field ecologists. During 2005 we collected information that related to veteran or remarkable trees and religious buildings in Zagori from toponym collections, village monographs, local publications, manuscripts and community archives. That was followed in 2006 by interviews of 145 people (80 women and 65 men). Most of our informants were old people (87 over 70 years old; 46 aged 40–69 years and 12 people under 40 years old) reflecting the age structure of the local populace. The interviews used voucher specimens comprising pressed leaves of trees of the area as a focus for discussion of tree values, taboos and identification of trees in SNS. Moreover, six people created cognitive maps of their village and surroundings, as described by Martin (1995), indicating outlying churches, icon stands and monasteries with mature trees or groves associated with taboos.

During 2007 (4 June–21 October), we verified all information provided by the archives and interviews by visiting 231 sites (6–18 sites in each of the 23 villages) to provide a cross-section of central churches and squares, cemeteries, outlying churches, icon stands, sacred groves and monasteries. We also undertook SNS visits with local informants. Even if the advanced age of our informants often did not permit them to accompany us in the field, their instructions were in many cases the only way to find the route to remote sites. In each site visited we recorded geographical co-ordinates using ArcPad7 on Pocket PC of the building and sketched the location of up to five of the nearest large trees using as reference the building or, in the absence of building, the biggest tree. For each tree we recorded the species, tree shape or *form*, diameter (cm) at



breast height (1.3 m) and associated artefacts such as bells or benches attached to the trees. We also recorded the presence of cut stumps and young trees in an effort to reconstruct past and infer possible future landscapes.

### 3. Results and Discussion

#### 3.1. *The Places*

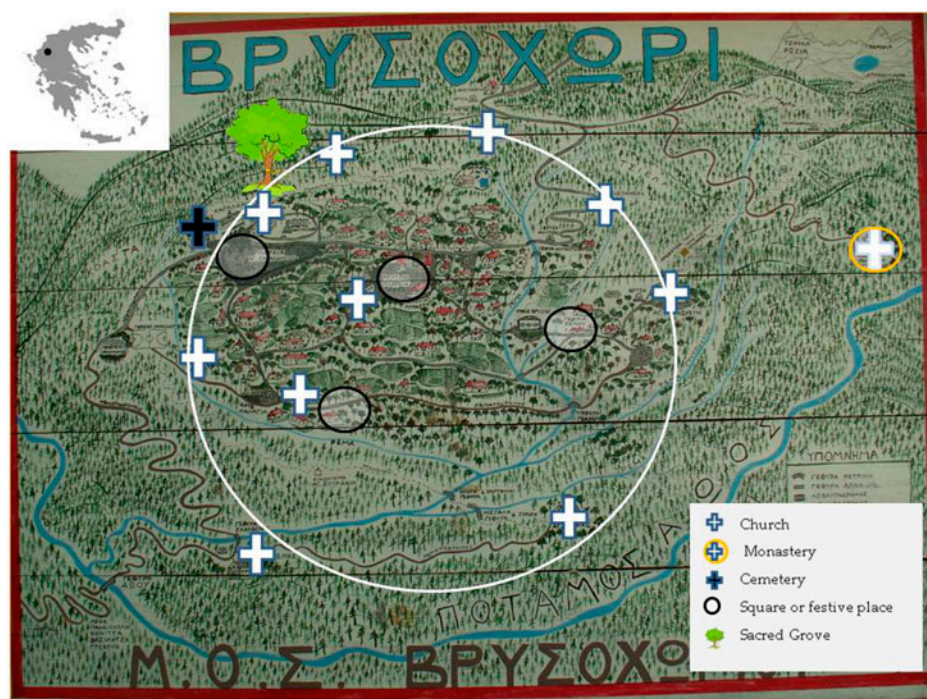
Villages surveyed were all found to share a common layout of cultural elements within their landscape. Every village has a centre, or in larger villages each parish has a centre, defined by its central church and square and a cemetery, all of which are associated with prominent trees. Around the periphery of each settlement are small outlying churches or icon stands accompanied by solitary trees or groves which define the boundaries of the village. As elsewhere in Greece, these are located in prominent places and often mark boundaries, liminal places, important resources or earlier settlements abandoned or destroyed; they memorialise deceased members of villagers' kin group or represent contracts with the divine for control over particular illness (Nixon, 2006). Larger areas of trees in the form of sacred groves or forests serve as protective wood belts above villages or define and protect important resources held in common especially as a last resort in times of need (Nixon, 2006; Stara, Tsiakiris, & Wong, 2012).

Taken together these sacred trees, groves and forests can be conceptualised as demarcating, encircling and magically guarding the settlement from the external 'wilderness' (Kyriakidou-Nestoros, 1989; Lagopoulos, 2002; Stewart, 1991) (see Figure 2). In the past they were imbued with the ability to block epidemics and evil powers. Moreover, they functioned as portals between village life and the external world, used as a last stop when villagers bid farewell to departing migrant sons and occasionally their trees were called 'klapsodentra' (literally 'cry trees'). On the contrary, according to local traditions, travellers on their return were quarantined in outlying churches for a period of 40 days in order not to bring epidemics in to the village (Lazaridis, 1972).

Most of SNS we surveyed (231) were dedicated to the Virgin (*Panagia*) (31) followed by those dedicated to St Nicholas (23), the protector of travellers in folk tradition and thus beloved to Zagori, where every family had migrant sons. The remaining were dedicated to 28 different orthodox saints who are protectors of agricultural production, lords of the weather and natural resources, healers or mediators between the living and the dead (Megas, 1988). The Virgin, Christ and the Saints act as intermediaries between people and a distant God and provide a more tangible target for individual and social action as the relation between people and saints is characterised by negotiation, pleading and waiting (Stewart, 1991). Thus, the viewshed (the area from which it can be seen) of an outlying church or icon stand that often carries Virgin's or a saint name functions as an expression of the subjugation of the forces of nature by the spiritual power of the holy personage to which the site is dedicated.

#### 3.2. *The Tree Species*

In the SNS surveyed we recorded 824 individual trees from 51 species. As shown in Table 1, outlying churches, central churches/squares, cemeteries and forests have a distinct suite of associated trees. Some species even though native in Zagori, were rare



**Figure 2.** The sacred elements of a characteristic cultural landscape in Zagori, NW Greece. The circle demonstrates conceptual boundaries between village interior and ‘wilderness’. The background is a cognitive map of Vrysochori village located in the village entrance and made by Ioannis Tsoulakis in 2004 for the local cultural association.

or unknown in the village lands and were imported from ‘elsewhere’: plane trees were transported to village squares from nearby rivers, firs from the distant mountains and limes from the Vikos gorge. The choice to plant species distinct from the native vegetation serves to domesticate the landscape, embellish the place of worship and feasts creating a specific aesthetic, and segregate it from places of everyday routine and survival, a praxis that continues as people still like to plant exotic species in public or sacred places (Hobhouse, 2004).

Nevertheless, oaks proved to be the commonest sacred tree and characteristic of Zagorian SNS. Oaks constitute the most important element of the forest vegetation of Zagori and also Greece; the genus *Quercus* is represented by 13 species (3 evergreen and 10 deciduous) accounting for 44% of the total forested area of the country and dominating 76% of deciduous broadleaved forests (Dafis, 2005). The abundance and variety of oak species, along with their imposing form and enormous value for the local economy, justify their position within the precinct of the house of God, that is, next to the church. Older Greeks equate the concept of *tree* (‘dentro’ in Greek) with oak. In antiquity, broadleaf oaks were powerful symbols of Zeus. Nevertheless, although Dodona’s oracle with its sacred oak is not far from our study area (~40 km), local people in general do not associate oaks with ancient Greek mythology, but rather with their utilitarian value for local communities (Stara et al., 2009). Of the



**Table 1.** Species of trees, cut stumps and young trees recorded in SNS of Zagori, NW Greece

Tree species		No. of trees in:					Tree max. diameter (cm)	No. of cut stumps	No. of sites with young trees
		Outlying churches/ icon stands (167)	Central churches/ squares (22)	Cemeteries (18)	Groves (22)	All sites (231)			
<i>Quercus coccifera</i>	Prickly oak	73		8	21	102	137		2
<i>Acer monspessulanum</i>	Montpellier maple	69	2	6	10	87	151		6
<i>Quercus pubescens</i>	Downy oak	72	1	1	13	87	158.8		3
<i>Platanus orientalis</i>	Oriental plane tree	31	29			60	318		
<i>Quercus frainetto</i>	Hungarian oak	44			7	51	125.6		
<i>Quercus petraea medvedieri</i>	Sessile oak	28	1	5	9	43	125.6		
<i>Pinus nigra</i>	Black pine	26		5	1	32	118		24
<i>Cerasus mahaleb</i>	Mahaleb cherry	22		6	4	32	151.5	6	6
<i>Tilia platyphyllos</i>	Large-leaved lime	20	4	4	1	29	186.2		8
<i>Quercus cerris</i>	Turkey oak	20			6	26	96.4		
<i>J. foetidissima/J. excelsa</i>	Stinking/Grecian juniper	10			15	25	122.8	2	
<i>Abies x borisii-regis</i>	King Boris's fir	18		4		22	100.6	1	9
<i>Cypressus sempervirens</i>	Funeral cypresses	10	2	9	1	22	87.5	1	22
<i>Robinia pseudoacacia</i>	Black locust	18	1			19	67		30
<i>Quercus trojana</i>	Macedonian oak	10			8	18	137.2		

(Continued)

Table 1. (Continued)

Tree species		No. of trees in:					Tree max. diameter (cm)	No. of cut stumps	No. of sites with young trees
		Common name	Outlying churches/ icon stands (167)	Central churches/ squares (22)	Cemeteries (18)	Groves (22)	All sites (231)		
<i>Cornus mas</i>		Cornelian cherry	15		1	1	17	76.5	1
<i>Carpinus betulus</i>		Common hornbeam	11			2	13	75.2	1
<i>Pyrus amygdaliformis</i>		Pear	12				12	80	1
<i>Acer opalus</i>		Italian maple	8		4		12	130.2	1
<i>Prunus cocomilia</i>		Italian plum	11				11	49.3	7
<i>Ostrya carpinifolia</i>		Hop hornbeam	9			2	11	154.5	
<i>Juglans regia</i>		Walnut	8				8	76	7
<i>Cerasus avium</i>		Wild cherry	5		3		8	81.5	10
<i>Morus</i> spp.		Mulberry	7	1			8	86.8	5
<i>Amygdalus communis</i>		Almond	4		3		7	78.9	2
<i>Juniperus oxycedrus</i>		Prickly juniper	4		1	1	6	35	2
<i>Acer campestre</i>		Field maple	5				5	72.1	1
<i>Celtis australis</i>		European nettle tree	5				5	85.2	1
<i>Crataegus</i> spp.		Hawthorn	3			1	4	42	1
<i>Carpinus orientalis</i>		Oriental hornbeam	4				4	41.3	
<i>Fraxinus ornus</i>		Manna ash	1	1	1	1	4	67	1
<i>Aesculus hippocastanum</i>		Horse chestnut	1	1	1		3	65.2	6
<i>Acer pseudoplatanus</i>		Sycamore	2		1		3	84.7	

<i>Pistacia terebinthus</i>	2		1	3	85.5		
<i>Sophora japonica</i>	2			2	82.4		12
<i>Laurus nobilis</i>	2			2	18.1		
<i>Pyrus communis</i>	3			3	82.4		
<i>Pinus brutia</i>	2			2	87		
<i>Malus sylvestris</i>	2			2	43.2		2
<i>Sambucus nigra</i>	2			2	23.2		5
<i>Corylus colurna</i>	2			2	40.7		3
<i>Acer platanoides</i>		1		1	60.5		
<i>Ailanthus altissima</i>	1			1	42	1	6
<i>Ulmus spp.</i>	1	1		2	67.8		
<i>Castanea sativa</i>	1			1	60.6		1
<i>Quercus ithaburensis macrolepis</i>			1	1	65.3		
<i>Populus spp.</i>	1	1		2	59.4		5
<i>Pinus heldreichii</i>	1			1	58.3		
<i>Salix alba</i>	1			1	150		1
<i>Cercis siliquastrum</i>	–			–	58.3	2	5
<i>Ficus carica</i>	–			–		1	2
<i>Quercus spp.</i>	–	–	–	–	–	26	
<i>Acer spp.</i>	–	–	–	–	–	6	
<i>Vitis vinifera</i>	–	–	–	–	–	–	7
<i>Punica granatum</i>	–	–	–	–	–	–	2

(Continued)

Table 1. (Continued)

Tree species		No. of trees in:					Tree max. diameter (cm)	No. of cut stumps	No. of sites with young trees
		Common name	Outlying churches/ icon stands (167)	Central churches/ squares (22)	Cemeteries (18)	Groves (22)	All sites (231)		
<i>Acer tataricum</i>		Tatar maple	—	—	—	—	—	—	3
<i>Prunus persica</i>		Peach	—	—	—	—	—	—	1
<i>Prunus spinosa</i>		Blackthorn	—	—	—	—	—	—	1
<i>Prunus cerasifera</i>		Purple-leaved plum	—	—	—	—	—	—	1
<i>pissardii</i>									
<i>Buxus sempervirens</i>		Common box	—	—	—	—	—	—	3
<i>Syringa vulgaris</i>		Lilac	—	—	—	—	—	—	8
<i>Ligustrum lucidum</i>		Chinese privet	—	—	—	—	—	—	5
<i>Cupressus arizonica</i>		Arizona cypress	—	—	—	—	—	—	8
<i>Chamaecyparis</i>		False cypress	—	—	—	—	—	—	3
spp.									
<i>Cydonia oblonga</i>		Quince	—	—	—	—	—	—	2
<i>Colutea</i>		Bladder senna	—	—	—	—	—	—	1
<i>arborescens</i>									
<i>Sorbus aucuparia</i>		Rowan	—	—	—	—	—	—	2
Total			609	45	64	106	824	59	

Note: The three most frequent species in each site category are in bold.

various species of oak in Zagori, it is the prickly oak which is the commonest species in the SNS and especially in sacred groves close to settlements. Only in these sites has this species been allowed to grow into a tree; outside sacred sites its commonest form is as low shrub, often only a few centimetres high sculptured by cutting, grazing and wildfires (Dafis, 2005) (see Figures 3 and 4). Prickly oak is highly valued as fodder; its evergreen branches were cut fresh for stall-feeding and it is browsed by goats even in quite deep snow (Halstead, 1998). In addition, the great resistance of the species with its ability to produce suckers, the way in which it protects fragile soils from erosion and its ecological value for wildlife are so important that it has been said by Professor of Forestry Spyros Dafis that ‘if we ever decide to erect a monument for one of our trees, then for sure this tree would be the prickly oak’ (Dafis, 2005, p. 2).

Outlying churches are most often accompanied by Montpellier maples (*Acer monspessulanum*). Although maples are native to the area they are rare and uncommon in the ecosystems of Zagori, which suggests that their frequent presence around churches is deliberate and not casual and they have a special association with sacred places.

Zagorian squares are characterised by the imposing presence of their veteran plane trees, which generally are associated with public places (Baumann, 1993). People greatly appreciate these huge trees because of their huge leafy crown that provides shade during summer and their association with water. The association of plane trees with humans seems to have a long history in the eastern Mediterranean, where the



**Figure 3.** Only in sacred places prickly oaks grow into trees; here the sacred grove of village Kato Pedina named “Megala Pournaria” (literally “big prickly oaks”).





**Figure 4.** Only in sacred places prickly oaks grow into trees; outside sacred sites the commonest form of this evergreen oak is that of a low shrub sculptured by cutting, grazing or wildfires.

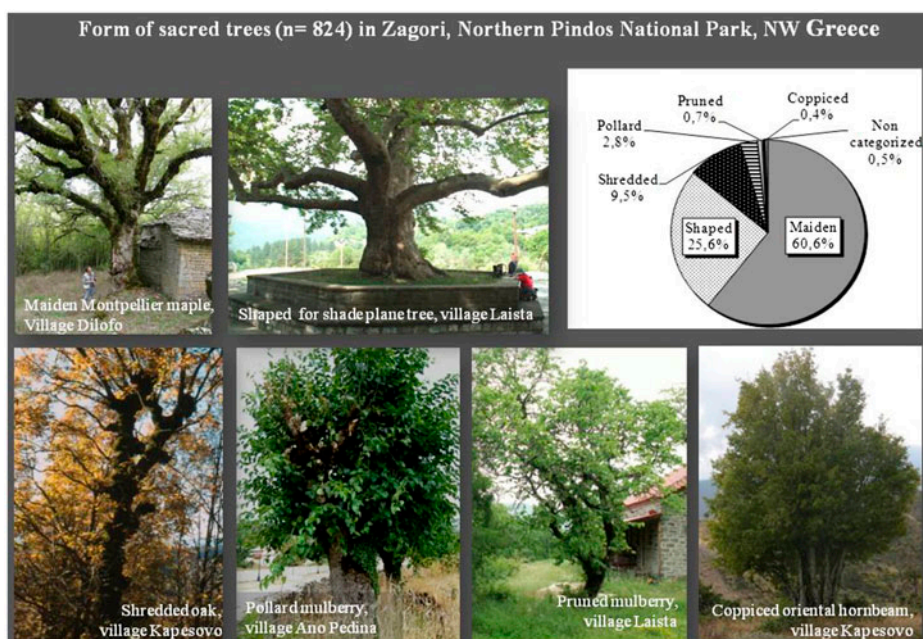
presence of planes serves as indicator of human land use and it is thought to have also been deliberately planted by prehistoric people (Grove & Rackham, 2001). Beyond its natural benefits, the plane tree also has cultural significance for local communities. It is identified with the symbolic and often the actual locus of the foundation of the settlement and continues to provide a focal point for community life (Arapoglou, 2005). Often in an effort to actualise the conceptualisation of a founding tree community narratives will date central plane trees as older than their actual age, for example, in Iliochori the central plane tree is said to be 1000 years old, in Elafotopos a local tradition dates the plane tree to c. 1200 and in Vitsa to the fifteenth century. However, the dimensions of these planes are similar to others for which the dates of planting are known because of stone inscriptions in loggias or church entrances. These suggest that plane plantings follow central church foundations (e.g. in Koukouli 1813; in Ano Pedina 1819; in Monodendri 1859 and in Kapesovo 1866) indicating that planes trees started to be planted in many Zagorian squares in the nineteenth century and have later acquired mythic status as witnesses to the longevity and vigour of the community. Moreover, the plane tree has a special meaning for villagers who live in cities, whose imagery of the ancestral village is bound up with the festivities, annual meetings and childhood games around the plane tree and imbue the trees with nostalgia for the past life of the village.

The typical funeral cypresses (*Cypressus sempervirens*) of the lower altitude graveyards of Greece and the eastern Mediterranean (Dafni, Lev, Beckmann, & Eichberger, 2006) give way in higher altitudes to prickly oaks, Montpellier maples and Mahaleb cherries (*Cerasus mahaleb*) as can be seen in Zagorian cemeteries. Funeral

cypresses along with pines and firs have been planted in cemeteries since the beginning of the twentieth century in an effort to create more ‘urban style’ graveyards, replacing native evergreen or semi-evergreen species. The presence of funeral cypresses and other planted conifers only in the cemetery in some Zagorian villages is the reason why local people characterise them as ‘sorrowful’ or ‘bitter’ trees.

### 3.3. Tree Forms

We distinguished three main categories of trees based on their form. These categories are related to the extent and type of human intervention in the form of the tree (Halstead, 1998; Rackham, 2006; Read, 2000). *Maiden* trees are those which are allowed to grow without interference. A *shaped* tree is one which is deliberately shaped by cutting or training of branches to give shade or for safety reasons because it is in close proximity to buildings. *Working* trees are those which are heavily used and their form follows function (shredded, pollard, coppiced and pruned). The majority of trees surveyed (710 individuals, 86.2%) were found to be maidens or shaped and only a small percentage (110 individuals, 13.3%) showed clear signs that were working trees (see Figure 5). We should note here that classification of tree forms proved particularly difficult because most management practices ceased some time ago and subsequent growth and healing may obscure signs of past interventions. In order to be as objective



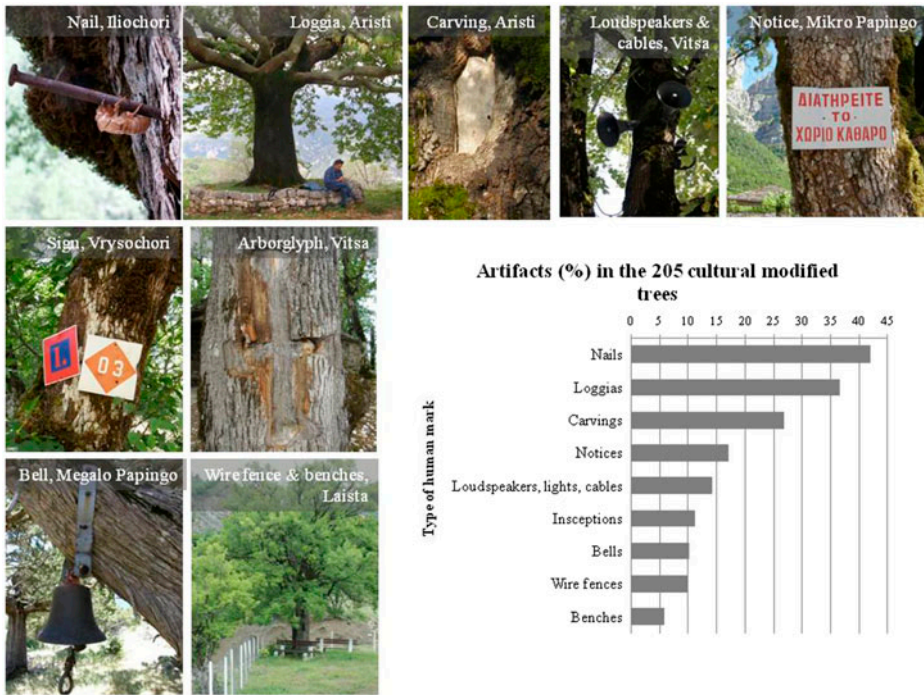
**Figure 5.** Characteristic tree forms in SNS in Zagori, NW Greece. The majority of trees surveyed were found to be maidens or shaped and only a small percentage classified as working trees.

as possible, we only classified working trees as those with obvious signs of repeated past management. This may have introduced a bias in the other direction and overestimates the numbers of maiden trees as it was at times difficult to discern deliberate cutting from natural (or inadvertent) damage.

Cutting taboos and the fear of supernatural punishments serve as cultural codes to human perceptions of the landscape. The forms of trees are therefore a tangible expression of past prohibitions and a well-preserved SNS could demonstrate stability through the generations. In contrast working trees in SNS demonstrate that respect of the rules was not always present and trespass has occurred perhaps as a consequence of changing social and historical circumstances. Nowadays taboos are fading along with the older generation though they are, in some cases, replaced by respect for community beliefs and local history. Thus, sacred trees coexist as both living embodiments of the divine, but also as natural monuments and symbols of past cultures.

3.4. Cultural Modified Trees

Human artefacts were found attached to the most urbanised of the trees encountered. Of the 824 trees studied, 205 we classed as *cultural modified trees* (CMTs) according to the term introduced by Andersson, Stlund, and Lundqvist (2005). CMTs were marked



**Figure 6.** Human artefacts associated with CMTs in SNS in Zagori, NW Greece. Artefacts conceptualise trees as markers of sacred or public spaces and witnesses of people's lives. Note that most trees combine more than one artefact.

by carvings, arborglyphs and objects placed in or hung from the branches or placed around or near the trunk (see Figure 6).

Nails hammered into the trees proved to be the most abundant artefact on the trees surveyed. People in most cases explained the presence of nails as purely functional, for example, for hanging bags containing foodstuffs during feasts or to fix the backs of seats. However, we had suspicions, which were strengthened during the ethnographic research, that huge old handmade nails in trees could also invoke magic. Hammering nails into trees was believed to transfer illnesses to trees or imprison evil spirits in them (Dafni, 2007). In Christian traditions, iron nails also symbolise Christ's passion and are attributed with magical power and as symbols of binding (Cooper, 2004). The manufacture of nails by Gypsies commonly thought to be magicians in pre-war Zagori, further served to strengthen their magical properties.

*"They nailed, but whom I do not know. They used to take the nails and nailed them crisscross and put also a rope, I don't know why ... I do not know well. The elders made so. For stubbornness or we fight together, now I nail you in the tree. They were making such things ... In downy oaks, in Macedonian oaks, in every tree ... For bad they made so ..."* (O.V., born in 1922, interviewed by Kalliopi Stara, Ano Pedina, 18 September 2006)

We also recorded plane trees mainly in *loggias* (circular or square stone walls which create an enclosure around trees, usually in a paved church yard or square). Loggias were usually covered by wooden boards until the beginning of the twentieth century and functioned as seats for men with social, economic, religious or political power. People of lower status and women were not allowed to use them at that time (Arapoglou, 2005). Plane trees in central squares have also variously sprouted spotlights, strip lights, forgotten Christmas lights, loudspeakers, cables, switches and electricity distribution boards. On their trunks, we found interpretation signs related the tree itself (the planting year, the planter, the motive of planting and in one case a poem dedicated to the tree), but also plaques bearing road names, road signs, 'no parking' signs, toilet signs and perhaps less prosaically proverbs fixed to the trunk with thumbtacks. Moreover, carved into the trunks of trees (mainly of planes), were the names or initials of people or football teams, dates, hearts, carved holes and crosses. All these arborglyphs were old suggesting that the previously juvenile pastime of inscribing graffiti on trees is not so popular anymore and confirming abandonment and population ageing.

Furthermore, a number of curious deep holes carved at shoulder height into the trunks were spotted. Similar carvings in trees have been reported elsewhere in northern Greece and related to annual ceremonies that are thought to magically enforce the natural boundaries of settlements and to bring an auspicious spring (Kyriakidou-Nestoros, 1989; Nitsiakos, 2003). We were therefore surprised to find that in Zagori the archive and ethnographic research did not support any association of these holes with ceremonies of this nature. Instead village foundation stories in Zagori relate to the placement of holy icons in trees. All the stories we uncovered are associated with the common belief that Greek villages were founded by divine intervention, directly or via the saints around a divinely mandated spiritual and often physical centre (Stewart, 1991) which in Zagori may have more often than not been a foundation tree. Moreover, we recorded trees with a cross inscribed or embedded



in their trunks making them *crossed trees* ('stavromeno dentro' in Greek) (Kyriakidou-Nestoros, 1989). Similarly to carved holes, mystical use of these crosses was only partly reported by our informants though some crossed trees were reportedly associated with the missionary journeys of St Kosmas the Aetolian (1714–1779). St Kosmas was a popular monk who travelled Greece teaching the Orthodox Christians and the places he visited were often marked by crosses of various types as memorials of his missions.

The custom of hanging the church bell in a tree next to the church continues, although some belfry trees have been replaced by bell towers. Moreover, old rusty fence wires fixed to and later grown into the tree trunks were recorded around several sacred groves. Often nearer to the church the wire was of newer type and less rusty, indicating changing boundaries to the sacred space (usually decreasing in size). Finally, there were benches donated principally by Cultural Associations, which exist in every village. Diaspora villagers often holiday in their village and use the chapels as destinations or resting places for afternoon walks. This use reinvigorates the sites, but also results in the accretion of the features and appearance of an urban park to suit the sensibilities of more recent inhabitants and visitors re-interpreting earlier uses.

### 3.5. *The Past and the Future*

Our examination of archives and people's narratives indicated emblematic trees which do not survive any longer. In an effort to examine these 'missing' trees, we located 59 cut stumps of veteran trees in our study sites. Stumps and local narratives confirm the presence mainly of oaks, but also maples, Mahaleb cherries and Cornelian cherries (*Cornus mas*) in the SNS in the past. The ritual use of the latter two in folk ceremonies and their strong symbolic power reinforces their cultural significance as wards against demons and fertility talismans. Local narratives relate Cornelian cherries to burials of dead infants in the roots of the tree, in order to guard the life of the next child of the family providing an indirect indicator of the species' significance in churchyards or graveyards (Stara et al., 2009).

Moreover, the young trees (less than 10 cm at breast height) we recorded comprise a mix of native, cultivated or ornamental species, some of which occur as naturalised exotics. Black locusts (*Robinia pseudoacacia*), black pines (outside their natural range), funeral cypresses and laurels (*Laurus nobilis*) were the most common non-native trees planted in the SNS, with the first two in particular being beloved plants in Greek silviculture. The black locust came to Greece in the middle of the nineteenth century and was used widely by the Forestry Service, along with the black pine, for torrent control in mountainous areas, roadside bank stabilisation and as ornament after the 1950s. Despite its recent introduction its fast growth, tolerance and multi-purpose use for lumber, poles, bee fodder, fuelwood and forage have made black locust a familiar tree (Dini-Papanastasi, 2004).

Black pine forms extensive natural forests on the Pindos massif and along with fir is the mainstay of industrial timber production in eastern Zagori. However, black pines are only planted in villages outside their natural range which extends to the higher elevations in Zagori. At the beginning of the twentieth century, local forest



friendly associations planted them along with fruit and ornamental species around many villages, with the aim of restoring tree cover in the overgrazed landscapes of the past.

People continue to attempt to establish funeral cypresses in cemeteries and laurels in churchyards because of their symbolic value in modern Christian ceremonies with the intention to bless and as a supply of bay branches ('vagia' in Greek) for Palm Sunday. Laurel is used in Zagori as a substitute for palm and has this in common with yew (*Taxus baccata*), a significant sacred tree in northern Europe (Bevan-Jones, 2004).

The presence of arboreal newcomers in the landscape is symptomatic of changing ideologies. The picturesque image of an outlying church surrounded by veteran oaks has been in certain cases transformed into something totally different: to a church surrounded by conifers planted in a manner that defines concrete boundaries and goes well with current fashions of aesthetics of public space, where modern rectangular shapes and lines replace older round shapes and curves (Nitsiakos, 2003) (see Figures 7 and 8). In addition, sometimes modernity in the form of new roads or fences bisects the sacred landscape. Veteran trees that formerly belonged to the church can now be found standing on the 'wrong' side of the road and thus lose their supernatural protection and are transformed from sacred to secular, becoming in extreme cases shade for parked cars or rubbish dumps.



**Figure 7.** Different views of the outlying church of Panagia in Megalo Papingo village (here from the south). Planted pines, lines and concrete boundaries alter the oldest sacred landscape of the church surrounded by its veteran prickly oaks.



**Figure 8.** Different views of the outlying church of Panagia in Megalo Papingo village (here from the north west). Planted pines, lines and concrete boundaries alter the oldest sacred landscape of the church surrounded by its veteran prickly oaks.

#### 4. Conclusions

Supernatural fear contributed to the preservation of the SNS into the present. According to our informants, lack of management, the indifference of the state, weakening of local society and rural depopulation followed by land abandonment, that is to say the same forces that are degrading the cultural landscape, also threaten the SNS of Zagori. Their management is the responsibility of the local authorities or state services that rarely consider the protection of sacred or community trees. A characteristic example is that the restoration of religious historical monuments most often ignores the presence of veteran trees as integral components of the site. Thus, ironically churchyard trees are frequently threatened by the renovation of the buildings they accompany. Moreover, in tourist places sacred trees often suffer lack of respect, being used as car parks because of their shade, or being destroyed by branch cutting for safety reasons with protests dismissed as adherence to old ‘backward’ beliefs and superstition by managers. Moreover, new diseases imperil several species: Dutch elm disease has killed most of

the veteran elms of Zagori, while the pathogenic fungus *Ceratocystis platani fimbriata* f. *platani* (Tsopelas & Angelopoulos, 2004), which has recently been reported in the broader area of Epirus, threatens plane trees with canker stain.

At the institutional level, Greek legislation protects only 51 individual trees or groves as Nature Monuments because of their particular botanical, ecological, aesthetic, historical or cultural value. These monuments were declared as protected in the period of 1972–1986 under the Forest Code, but because of institutional changes and a lethargic bureaucracy, practical application of this protection was never implemented, while new declarations are apparently indefinitely postponed. This ineffectiveness at institutional level in conjunction with social weakening and local government inconsistency has resulted in conflicts between local authorities and groups of people for whom conservation of sacred or community trees is gaining prominence following global trends in the appreciation of the value of culturally significant trees. Thus, in a new perspective, aesthetic and ecological values of veteran trees are added to existing cultural and spiritual values as drivers for re-evaluation of trees as an expression of local cultures' collective memory and history.

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