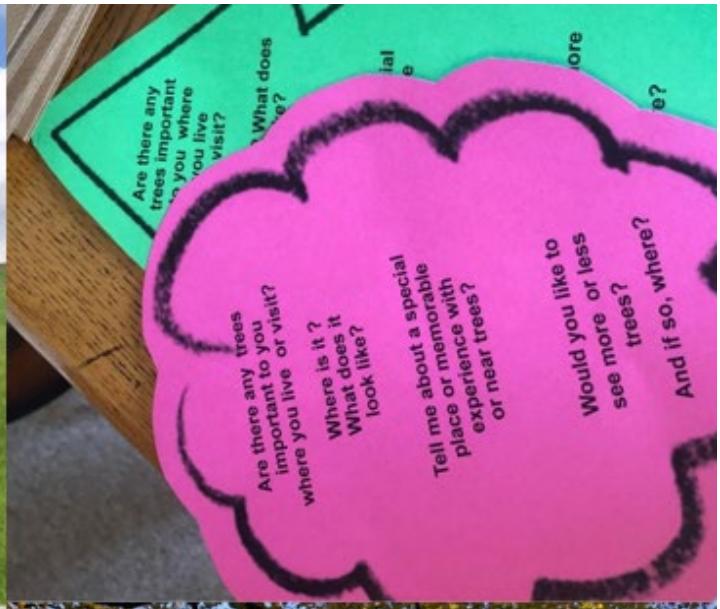

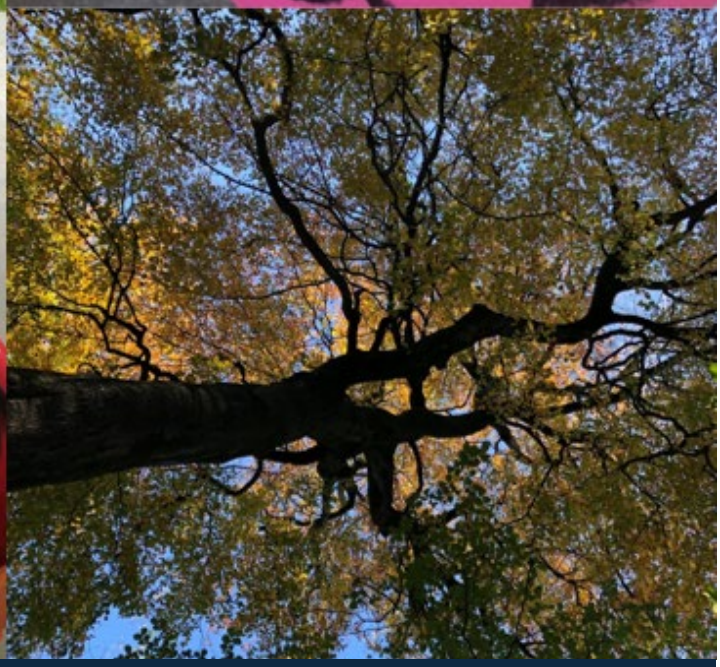

Young people's socio-cultural values in relation to Trees outside Woodland and landscape change

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Executive Summary

Young people have been under-represented within discussions about Trees outside Woodlands in peri-urban and rural areas (ToWPUR), resulting in their experiences, values, and attitudes being overlooked in both the policy frameworks and management strategies for these landscapes.

This research addresses this gap by examining young people's experiences of, and relationships with, ToWPUR, exploring both their sociocultural values (shaped by shared cultural practices and social experiences) and their specific value orientations as expressed during discussions about landscape change. The study employed a multi-site research design across three geographic areas in England (Cornwall, East Sussex and the Peak District), conducting 12 participatory interactive workshops with 48 young people aged 10-15.

Our findings reveal that young people develop strong connections with trees through multi-sensory and embodied experiences, particularly through play and observing seasonal changes. While initially not distinguishing ToWPUR from treescapes, they demonstrated positive attitudes towards trees, valuing them for multiple purposes: as spaces for play and recreation, places of retreat with restorative value, and for their environmental and biodiversity benefits. The development of these values is significantly influenced by three key factors: family and friends, who shape experiential engagement and foster positive attitudes towards tree preservation; school-based learning, which enhances understanding of environmental and biodiversity importance; and age-related transitions, where value orientations shift from play-focused to appreciating trees for socialising and retreat. Regional variations in engagement were evident and were influenced by local tree cover, cultural practices, and traditions associated with trees.

Based on these findings, we propose five key recommendations which are expanded upon in the conclusions section: first, prioritise the preservation and development of ToWPUR, recognising their significant role in young people's wellbeing and value development. Second, expand educational opportunities that combine traditional learning with direct experiential engagement, building on successful approaches such as Forest Schools. Third, utilise age-appropriate platforms such as YouTube, social media, and virtual spaces for messaging about

ToWPUR. Fourth, actively include young people's voices in local ToWPUR planning and management decisions, acknowledging their passion, knowledge, and articulate perspectives. Finally, conduct further research to explore regional variations in young people's engagement with trees as well as their perspectives on specific planning and policy developments affecting ToWPUR, using participatory and creative approaches that recognise how ToWPUR values are embedded within broader narratives and everyday practices.

Acknowledgements

This research was commissioned by Forest Research as part of the 'Understanding the public value of Trees outside Woodlands: Peri-Urban and Rural' research project, funded by the UK Government through the Nature for Climate Fund. Jen Clements (Forest Research) managed this project and supported the research development.

Introduction

This report is part of a wider Defra-funded project Understanding the public value of Trees outside Woodlands: Peri-Urban and Rural (ToWPUR) which is aimed at exploring the social and cultural values that people associate with trees outside of woodland, especially those in rural settings and on the edges of urban areas (peri-urban). Whilst there have been economic valuation assessments of these trees, this project aimed to explore the social and cultural values of trees outside woodland. This work package focused specifically on young people – a group who have been under-represented in the discussion of values around trees – and draws on a set of 12 interactive workshops which engaged a total of 48 young people aged 10-15 across three locations across the UK. The research aimed to answer four questions:

- How do young people experience and care for Trees Outside Woodland that are part of a specific peri-urban or rural landscape?
- What values do young people hold around these ToWPUR?
- What can we learn about how these values have formed, including the key influences on value formation?
- How are these values activated and negotiated in discussions around landscape change, for example, the loss (whether by felling or by encapsulation through tree planting at scale) or addition of ToWPUR?

Background – Conceptualising young people's values around trees

In framing this project, we bring together work on values, specifically relating to trees and the less voluminous work on value change, including the smaller subset that has focused on younger people and trees and outdoor space. We synthesise this with Bourdieusian thinking on human-nature relations through a consideration of capital(s), and the intersecting concepts of habitus and field. Although there is a burgeoning literature on values generally, and this notes the importance of values serving as motivators (Schwartz 2005), environmental values, and values around trees in particular, have been a less prominent focus (Bataille et al. 2021). The broader values literature is instructive in suggesting that values are hierarchical, with their respective prioritising being crucial in shaping perceptions and beliefs (Rokeach 1973; Schwartz 1992). Although the terminology used in discussing values varies, a distinction is drawn in literature on environmental values between *held values* (which are those things which are important to an individual) and *assigned values* (the importance of a specific place or object) (Brown, Reed, and Raymond 2020). A third set of values are 'relational values' (called relationship values by some authors (see Brown, Reed, and Raymond (2020)) - which are values that are not inherent in things, but are born out of the relationships and responsibilities to them (Chan et al. 2016).[1]

Recent work on values relating to trees and woodland has been largely adult-centric, exploring aesthetics (and how trees may offer variety in particular landscapes) (Lim, Innes, and Sheppard 2015), health and wellbeing values (and how these may differ in different contexts) (Tyrväinen, Bauer, and O'Brien 2019) and spiritual and symbolic significance (Cloke and Jones 2020). Such values have been examined within a variety of contexts, including urban parks, national parks (Považan, Getzner, and Švajda 2014; Rudl et al. 2019) and rural locations (Nassl and Löffler 2019). Research on environmental values, especially concerning trees, has largely emerged from a shift in landscape and planning towards more deliberative approaches, specifically the need to connect human values with physical landscape features.

[1] This concept has gained traction in recent years, following its inclusion in the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) and the IPBES values framework (Pascual et al. 2023).

In nuancing the understanding of how relational values are developed within particular contexts and shared amongst groups of people and communities, Bourdieu's notion of habitus – "the habitual, patterned way of understanding, judging, and acting which arise from our particular position as members of a certain community or society" (Bourdieu 1986, p.811) – is particularly useful. As Ishihara (2018, p.61) notes, paying attention to habitus provides an explanation of "how relational values are (re)negotiated as individuals face new situations, creating tension and conflict within the community, and at times changing its power relations". As such, this enables us to consider both how values are socially constructed and why they may become (un)stable within a group. Although not focusing on trees and young people, this wider literature hints at the processes of socialisation, where people learn the context-appropriate way of engaging, which becomes an enduring disposition and way of being. Although such knowledge is usually shared, it may sometimes be restricted or wielded by dominant social groups through processes such as symbolic violence (Bourdieu 1998) – which is a form of non-physical violence expressed through power imbalances between social groups. In relation to the current project, allied work on values (and environmental values in particular) is instructive in noting how parents transmit values to their children through processes of socialisation such as discussion, modelling, and punishment (Tam et al. 2012). Cheng and Monroe (2012) note these processes specifically in relation to values around nature, with Larson *et al* (2019) observing a relationship between stronger connections with nature and parents who discuss nature with their children. More implicitly, other research notes that easy access to nature as a child shapes positives attitudes toward nature in adulthood (Brown and Kaye 2017), including biodiversity protection specifically (Larson et al. 2019) and is something noted as especially important in the case of UK ethnic minority groups (Palmer et al. 2025). Meidenbauer *et al* (2019) also hint at this socialisation process in noting that children's preference for nature become more similar to those of their parents as they age.

In terms of value change, it is generally understood that core values are a "relatively stable" construct or guiding principle (Rokeach 1973, p.11), both in terms of their relative importance and how they feature within hierarchies of values (Milfont, Milojev, and Sibley 2016). Consequently, theoretical work on value

change has been limited in terms of the number of studies undertaken (Bardi and Goodwin 2011). Previous value-focused studies have assessed value change through two main approaches. The first examines values at two distinct time points - particularly around life events (Verkasalo, Goodwin, and Bezmenova 2006) or cultural relocations (Lönnqvist, Jasinskaja-Lahti, and Verkasalo 2011; Bardi and Goodwin 2011) - while the second employs longitudinal studies (Leijen, van Herk, and Bardi 2022).

Despite the relative stability of values, at a broad scale it has been noted that age may be correlated with values in the sense that different generations may hold, and prioritise, different sets of values to other generations (Lyons, Duxbury, and Higgins 2006). This can be productively combined with Bourdieu's notion of the habitus, where it is noted that dispoistions change over time as new experiences occur (Bourdieu and Wacquant 1992). This recognises that the habitus may evolve as individuals bring in new understandings from outside of their context and come to learn about different issues and sees how values may be reworked and reprioritised over time. As Ishihara (2018, p.63) notes, "as individuals interact with nature and among themselves, they share and internalise certain relational values as habitus" - going on to explain that even though values may reside at the individual level, they may be influenced by the context and shared culture. The authors articulate this through the example of how an individual may enjoy the tranquillity of a forest because it is their family tradition, or because it is the norm for their particular class or social position (Ishihara 2018). As such, we can see relational values as very often shared at the collective level, and that these move through two interlinked processes: sharing and (re)negotiating. Often, therefore, relational values are often shared and do not appear to change within groups as they become continually reproduced. As has been noted more broadly, however, events may trigger value change (Bardi and Goodwin 2011) – with examples including traumatic life events (Manfredo et al. 2017), or when people relocate to a less familiar culture (Lönnqvist, Leikas, and Verkasalo 2018).

As Ishihara (2018) reflects, when faced with issues such as ecological or economic challenges, individuals improvise and piece together different pieces of knowledge so that they survive in that situation – or, using Bourdieu's (1990) terms, adapt to the changing "rules of the game". As such, "this understanding of a

recursive relationship developed in social theory enables us to understand relational values as processes in which they are shared within a group as well as they are renegotiated over time, creating conflict and tension" (Ishihara 2018, p.64). This is usefully exemplified in the case of the commodification of forests (via carbon markets) in Tanzania (see Lau and Scales 2016), where the changing structural and economic conditions changed the value that local people held toward trees. The habitus, in essence, becomes reworked as new type of internalised understanding.

Whilst triggers of value change have been most evident in research which has looked at crisis events such as war or famine (Verkasalo, Goodwin, and Bezmenova 2006), life events - such as having children in the case of adults (Lyons, Duxbury, and Higgins 2006) or becoming more aware of body image in adolescence amongst young people (Kostamo, Vesala, and Hankonen 2019) - might also (re)shape values. This research has focused on adults, however a similar research survey (n=2413) in Sweden reported that sustainability consciousness dips in adolescence and suggests that earlier life experiences may also affect values.[2]

These conceptual insights are useful in framing literature that considers young people and trees. Although there is extensive literature on the benefit of play in natural environments and connection to nature for child development, "trees are often mentioned among many elements of nature, but they have escaped the centre of interest" (Laaksoharju and Rappe 2017. p.150). General findings in this literature are that time in natural environments has benefits for play, social interactions, and physical activity. Relating back to the earlier discussion of socialisation, the benefits of nature can be undermined by adult concerns about risky and unsupervised play. Much of this literature draws on the concept of "affordances" (developed in the 1970s by Gibson) (see Palmer et al. 2023) and considers the functional uses of environmental features that emerge in a relational, dynamic manner at the intersection of perception, capacities, and availabilities (Laaksoharju and Rappe 2017). That is, whether a tree affords climbing depends on material factors such as if the lower branches are within

[2] For a discussion of some of the methodological approaches taken to trying to capture these value changes see Kienast *et al* (2015) and Hedblom *et al* (2020).

reach and sturdy enough, cultural factors such as family discourses around the risks of tree climbing, and the child's own actions and capabilities. More recent literature is extending thinking around affordance to emphasise the non-human as a more active agent in children's natural play (Änggård 2016).

Trees have been found to be one of the most attractive and meaningful features to children in greenspaces and their local areas (Koller and Farley 2019), and play a powerful role in the relational entanglements between young people, place, and play (Goodenough, Waite, and Wright 2021). Research with primary school aged children (7-10) in a suburban park in Finland found that children engaged with various specific affordances of trees: to display and develop competence (e.g. climbing), for relaxation, (e.g. hiding) for imaginative play (e.g. dens, as demarcating space, tree materials as props or decoration), and in ways that meet various developmental needs they have (e.g. confidence, creativity, excitement, independence, connection with others and nature). Work with children and adolescents (3-15) in a peri-urban adventure playground found similar engagements with trees; seeing trees as highly affective to young people who affectionately personalise them as objects of attachment (Goodenough, Waite, and Wright 2021). Certain trees here may be conceived as super affordances (Laaksoharju and Rappe 2017), or partners in place-making and play (Goodenough, Waite, and Wright 2021) – providing both spaces and materials for play, opportunities for individual escape, solace, daydreaming and reflection, as well as promoting sociability and peer play, and facilitating wider connectedness to place. Responses to trees are often linked to ideas or perceptions of their enduring nature – their size and age, or familiarity to young people, has been linked to how the trees might be viewed as calming and protective (Koller and Farley 2019; Milligan and Bingley 2007). Climbing and occupation (den making, tree houses etc.) are identified as a particularly key activities for both children as explorations of competence, pleasure in playful risk and sociability, but also, in relation to our earlier points on family and familial habitus, in terms of tensions between adults and children in discourses around risk and trees (Goodenough, Waite, and Wright 2021; Laaksoharju and Rappe 2017).

Not all of young people's feelings about trees, nature, and greenspace are necessarily positive. In relation to scholarly and policy discourses around natural

landscapes as restorative, healing, and beneficial to mental health, Milligan and Bingley (2007, p.799) find that “we cannot accept uncritically the notion that the natural environment is therapeutic”. Their research with young people (16-21) in rural and semi-rural areas found that some perceived woodland as peaceful, but others as scary or anxiety inducing. Research with adolescents on greenspaces in a small-town setting found strong perceptions of these as “boring”, and “dangerous”, in terms of being spaces for potential bullying (Eastwood et al. 2023).

Across various areas of research, scholars note the dynamic nature of children and young people’s relationships with trees and nature. These relationships are not innate but mediated by social, cultural, and material factors. Echoing discussions of socialisation, in cases where young people had negative attitudes to woodland, these were influenced by adult discourses around the risks of woodland spaces, as well as media representations which created gendered fears around safety (Milligan and Bingley, 2007). Linzmayer and Halpenny (2014) wrote about children’s relationships with botanic gardens, including the way children form positions of “attraction, repulsion, care, or fear” towards nature, mediated by gatekeepers which “constrain” or “invite” activity. This was most prominently members of the family (parents, but also siblings and grandparents), as well as other human gatekeepers such as friends and teachers, but also non-human gatekeepers such as media, literature, and signage. The affordances of nature are always relational in terms of being both formed through children’s relationships with their families and local places, and playing a role in their relationships with their families and local places – nature can afford a family quality time and create attachment to place (Beery and Lekies 2019). Post-humanist and non-representational approaches emphasise that the materiality of natural objects and environments exert their own force in how children relate to them (e.g. the texture of bark and climb-ability of branches), but acknowledge that children’s relations with nature are always also mediated by symbolic and discursive aspects – particularly discursive relations with peers (Birch, Rishbeth, and Payne 2020; Änggård 2016; Goodenough, Waite, and Wright 2021) .

The literature on children and younger people suggests that relationships with nature change over time and with engagement. Laaksoharju and Rappe (2017), in ethnographic research over 3 years at a children’s summer camp, found that the

ways children engaged with trees increased over time, similarly Rantala & Puhakka (2019: 490) write that “the more young people and families spend time in nature, the more they are able to perceive affordances that enhance their well-being”. Eastwood *et al* (2023) found that the engagement with nature embedded in participatory research processes themselves had a profound effect on shifting adolescents’ feelings about greenspace from negative to positive. Engagement with nature in childhood has long term effects: memories of engagements with nature remain vivid in later life (Beery and Lekies, 2018). Research finds that both passive (e.g. spending time around trees) and active (e.g. gardening, tree planting) engagement with plants and trees in childhood can underpin adult attitudes to trees and plants – active engagement more so (Lohr and Pearson-Mims 2005), and the frequency of woodland visits in childhood is closely correlated to comfortability in, and potential benefits derived from, these environments as young adults (Milligan and Bingley, 2007).

Methodology

The research took a participatory workshop approach, conducted with young people and community groups across three sites in Cornwall, the Peak District, and Sussex respectively.[3] Our sites were chosen as locations where ToWPUR are a prominent feature of the landscape - and where there are ongoing discussions in the media of their role, preservation and future - and within which the research team had pre-existing research expertise and contact with youth groups and organisations.[4] A total of 12 workshops (4 in each location) were conducted, involving 48 young people in total (16 in Cornwall, 16 in the Peak District, and 16 in East Sussex), conducted in the autumn of 2024.[5]

In Cornwall, the research partnered with a local community centre in West Penwith, a rural coastal peninsula. The centre serves as a meeting place and an activity hub for local residents, including young people. Workshop participants were recruited from surrounding villages through a combination of the centre's established social media channels and snowball sampling. The young people came from a rang of socio-economic backgrounds and school years. Across the three-sites, the partner organisations helped with the design and facilitation of the workshops.

In the Peak District the research partnered with a Community Interest Company based in North Staffordshire, which runs youth groups and youth training across Staffordshire, Derbyshire, and Cheshire. The young people recruited for these workshops came from a range of youth groups, rather than all belonging to the same group – recruited via a mix of social media and poster adverts – and were from a range of socio-economic backgrounds across North Staffordshire, the High Peak and the Derbyshire Dales.

In East Sussex, the research partnered with a youth club based in a village in the Ashdown Forest area. The youth club takes place in a small, purpose-built centre

[3] The research underwent ethics review and clearance via the University of Liverpool – this was a two-stage process given the engagement with young people under the age of 16 (review reference CUREC-C- 14387).

[4] See for example - https://www.timeslocalnews.co.uk/lifestyle/ashdown-forest-under-threat-after-planners-had-to-approve-new-builds/; https://www.bbc.co.uk/news/uk-england-derbyshire-67544873; https://www.cornwalllive.com/news/cornwall-news/cornwall-housing-seaside-development-penzance-8928729

[5] Although some young people missed one of the workshops, all engaged in at least 3 out of the 4.

on the village green that was built through community fundraising efforts. They run a drop-in space in after-school hours several nights a week, as well as providing specific services (e.g. running sexual health education sessions), and facilitating special events or outings (e.g. involvement in the village panto, village festival, and running daytrips in the holidays). The village is quite a large one and has a strong reputation as a hub for people interested in ‘eco’ and alternative lifestyles. The young people involved in the research were from more mixed socio-economic backgrounds than the average for the affluent area, as the club engages a large proportion of young people who live on the social housing estate in the village. The young research participants were all known to each other from the club and local primary schools, though not necessarily all closely, due to the range of ages.

Workshop 1

Our workshops were designed to draw on established participatory research principles (Clark and Moss 2011; Thomas and O'kane 1998) to ensure the research was engaging for young people and facilitated space for them to share perspectives that the researchers might not expect or foresee. Using a mix of visual, diagramming, written, and discursive techniques allowed young people with different competencies and preferences the chance to express their views (Grant 2017), developing their sense of agency as 'environmental change agents' (Mort et al. 2018; Malone 2013).

Following icebreaker activities, workshop 1 opened with a free association drawing/writing activity. Our intention here was for the young people to express their initial ideas and thoughts relating to trees before the workshops had influenced their thinking (see examples in Figure 1). As Eastwood *et al* (2023) suggest, engagement in research can, in itself, influence the thoughts and values of young people, and we were keen to explore the understandings that the young people entered the research with. Free association was followed by a collaborative sorting exercise which asked the young people to rank the three most significant reasons as to why trees outside of woodland are personally important to them. These were placed on leaf shaped post-it notes and created a tree illustrating their value-hierarchy (see Figure 2). Whilst the free association exercise left space for the young people to bring in any associations with trees, the ranking exercise was designed to elicit which values were prioritised by individuals and explore the level

of consensus (or lack thereof) around this prioritisation across the group. These were followed by peer-to-peer interviews, where we gave pairs of young people a dictaphone and asked them to interview each other about the associations they had made in the previous sections, and to explore their thoughts, feelings and experiences about ToWPUR. As a starting point, they were provided with a set of questions, but were asked to be as creative as possible in thinking of new questions. The resultant transcripts were analysed alongside the visual materials produced from the first two exercises.

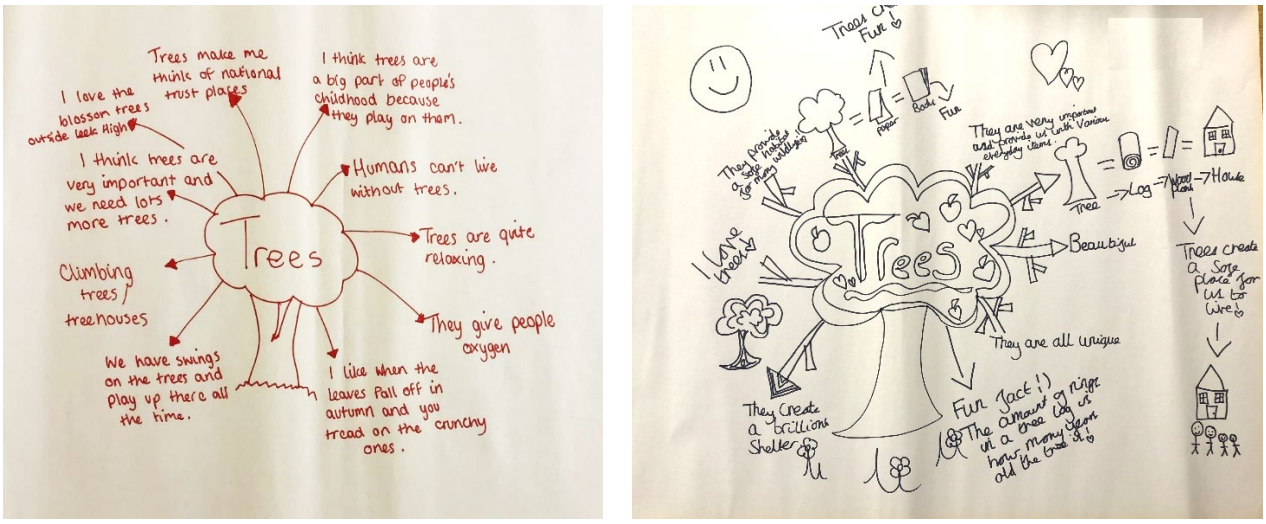

Figure 1 - Examples of brainstorming free association diagrams produced in Workshop 1

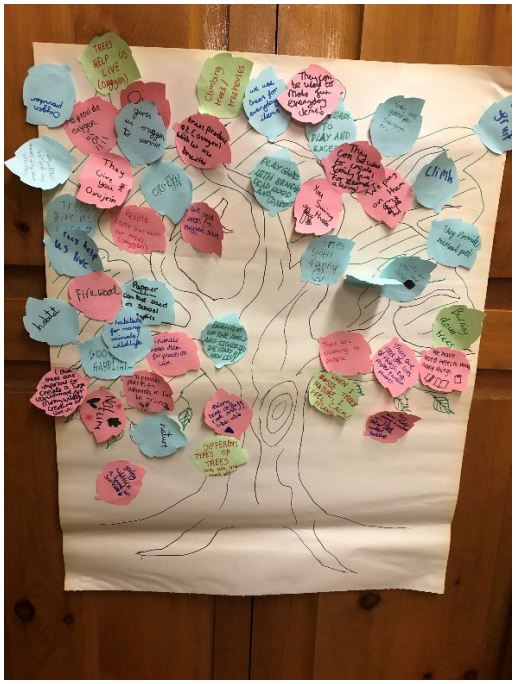

Figure 2 - Hierarchy trees of importance in value mapping

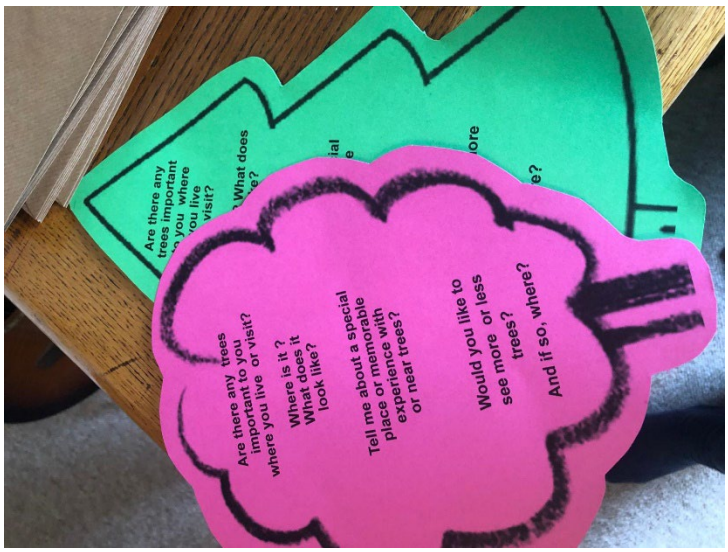

Figure 3 - Prompt questions for peer-to-peer interviews

Workshop 2

The second workshop focused on encouraging the young people to reflect on how their values around ToWPUR were formed. We asked the young people to reflect on the role of four domains: family, friends, school and media. We employed a World Café approach - a participatory method designed to facilitate open dialogue

through rotating small-group discussions (Löhr, Weinhardt, and Sieber 2020). This method creates an informal atmosphere where participants move between ‘conversation stations’, building upon previous discussions and generating collective insights. Using this format, we asked young people to rotate around several stations and reflect on the role of each influence on their experiences with trees (Figure 4). During the rotations, a range of data types were produced (i.e. drawn, written, numerical) enhancing the oral data recorded by the researchers and facilitators. This enabled us to better engage the participants and also draw from a range of sources for our analyses and the communication of our findings. A final exercise has participants create timelines charting their experiences with trees over time. This aspect was crucial in adding a temporal dimension, which was instructive for understanding both value change and processes of cultural reproduction.

Media

The media station involved the young people being presented with media sources (Figure 5) and asked to role play/replicate a news item they had seen (Figure 6) and to comment on what types of media might tell them about trees.[6] For example, in the Cornwall workshop we enhanced engagement through creative technology: young people could perform on a virtual TV screen, re-enacting conversations and scenarios against a selection of digital backgrounds. This playful approach allowed participants to dramatise the discussions they had heard through various media sources.

Family

The family station used diverse images of families and family-related activities as prompts for catalysing conversation and maintaining young people's engagement. This interactive approach. This interactive approach helped keep discussions lively while serving two purposes: prompting participants to make connections between their family life and trees, and exploring family value orientations.

[6] Examples of the media given as prompts (see Figure 5) included TV and online news such as the BBC, social media channels like Facebook and X, films, books, music and magazines (print or online).

Discussions revealed how family members viewed local trees, including perspectives on tree planting and removal.

School

The school station facilitated informal discussions about young people's experiences and knowledge of ToWPUR from within their school environment. To create an engaging, familiar setting we designed a playful desk space featuring typical school items - pens, exercise books and a mini chalkboard displaying sample questions. This setup offered participants the option to express themselves through writing or drawing, complementing their verbal responses with visual and textual contributions.

Friends

At the friend station, participants explored peer relationships and ToWPUR using A1 rolls of paper for creative expression through writing, drawing, or discussion. The experience was enhanced by an interactive element where participants could trace around their friends to create a person outline, which doubled as a creative space for further written and artistic contributions about their shared experiences (Figure 7).

Participant timelines

The timeline exercise offered participants two formats: either a traditional linear timeline drawn on blank paper, or a pre-prepared tree ring illustration resembling dendrochronology. Both approaches served as temporal frameworks for participants to record their experiences. With support from facilitators or researchers, participants were asked to chart experiences and attitudes from early childhood to present day, therefore capturing how values may have changed over time, situated with external influences and aspects of socialisation and cultural reproduction.

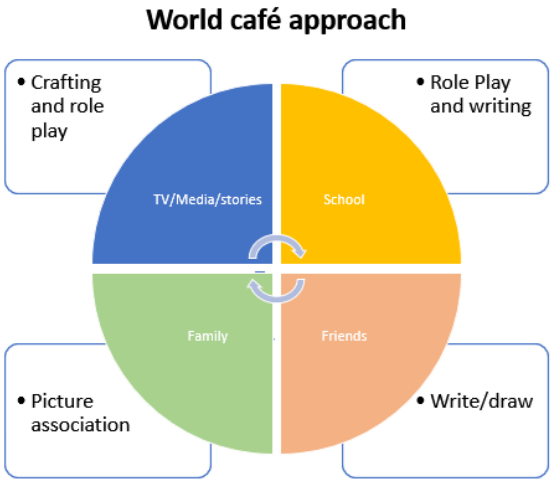

Figure 4 - Outline of activities in Workshop 2

Figure 5 - Potential media sources shaping values

Figure 6 - Station for media role play

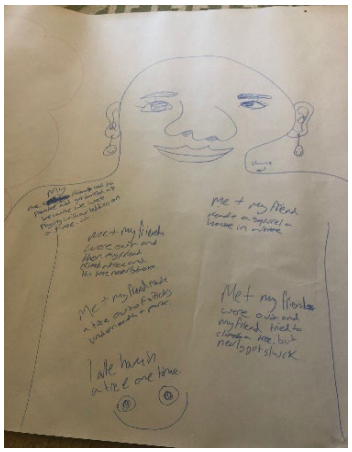

Figure 7 - Mapping the role of friends

Workshop 3

After establishing considerable data on young people's value orientations and sociocultural influences, workshop 3 leveraged and activated these values through an innovative methodological approach designed to provide agency to the participants in various land use scenarios related to ToWPUR. As Derr and Tarantini (2016) demonstrate, when young people are given meaningful opportunities to participate in planning processes, they often think holistically about spaces while bringing innovative solutions that adults might not have considered. This youth council involved a semi-circular seating arrangement where participants heard three separate pitches aimed at securing available

funding to enhance a disused piece of land (Cornwall and Peak District) or repurpose a local green space (East Sussex). The scenarios were pitched by the researchers and the youth workers, where they adopted the persona representing the respective interest groups.

Participants were provided with materials to take notes, and in between each pitch had time to ask questions of the speaker (played by a researcher or facilitator) and then make considerations in response to prompts provided to trigger thoughts about their desires and ideas, the local community and in respect to the future. These prompts included: “How would these pitches, and the scenario they represent, affect you or the things you care about?”; “If you were to visit, what would you want to do there?”; “Would it be good or bad for your friends and family, why?”; “How will it be good or bad for you in the future, when you are a bit older?”.

Following the conclusion of the scenarios, young people voted for their 1st, 2nd and 3rd choices by placing ballot sheets into a secret ballot box. The coordinators were then able to calculate the totals and present the young people with the winning pitch of the exercise. Discussions, questions, and ballots were orally recorded for analysis, whilst numerical votes counts are used to illustrate the general pattern and preference for various the three scenarios. Subsequent to this exercise, participants could pair up to make short recordings and peer interviews about their choices and decision making, adding another layer of how the participants negotiated conflicts when their values were activated.

Scenarios

Three pitches were designed based on the initial analysis of workshops 1 and 2 (see Figure 8). The key values identified at this stage were recreational, aesthetic, wellbeing, environmental, and biodiversity and each pitch covered a scenario relating to this. Incorporating these values into scenarios provided an opportunity to activate values and stimulate conversations. While these scenarios were necessarily simplified and somewhat artificially distinct from one another - as real-world planning rarely falls into such neat categories - they served effectively as discussion prompts. An important point to note is that this workshop was not an experimental design governed by strict rules aimed at producing reproducible and generalisable results.

Figure 8 - ToWPUR scenarios for Workshop 3

Scenario 1: The Environmental Scientist – Biodiversity/Environmental Focus

(Nature-centric perspective)

The environmental scientist scenario aimed to activate young people's values regarding biodiversity and the environment, specifically focusing on life-sustaining properties and wildlife habitats. The scenario presented a 'carbon landscape' that prioritised trees known for their carbon sequestration potential. The landscape incorporated wetlands and was explicitly designed as a protected area where human access was limited to the perimeter to prevent ecosystem disturbance. The area was intentionally not portrayed as aesthetically pleasing, particularly in the near term, thereby emphasising its instrumental value for wildlife and oxygen production.

Scenario 2: The Recreational Planner – Recreational Focus

(Youth-centric perspective)

The recreational planner's pitch prioritised creating spaces specifically for young people. The proposal advocated spending funds on climbing-appropriate trees, play equipment, and designated areas for adolescents to retreat and socialise. This recreational space was designed primarily to serve the young people in the community rather than wildlife. Tree selection focused on durability and climbing suitability rather than aesthetic qualities.

Scenario 3: The Community Health and Wellbeing Practitioner – Wellbeing/Aesthetic Focus

(Community-centric perspective)

The community health and wellbeing practitioner proposed a space serving the broader community. This scenario advocated investing in mature, aesthetically pleasing trees to create an environment for community gathering and relaxation. The pitch emphasised establishing spaces for memory-making, including culturally significant features such as a wishing tree. Unlike the recreational scenario, this space prioritised the therapeutic and calming qualities of nature rather than active recreation.

Workshop 4

The final workshop served three purposes:

- to focus in on more specific policy-based issues in respect to young people's values and ToWPUR;

- to provide participants with an opportunity to feedback on our initial analysis and findings;
- to gain an insight into the strengths and weaknesses of the methodological approach from the young people's perspective.

Accordingly, an in consultation with the Forest Research Project Lead who brought ideas from the Project Advisory Group (made up from policy and practice professionals), the workshop was structured around the topics of tree removal and tree replacement, followed by a group reflection on the findings from each of the workshops, and ending with an opportunity for participants to provide their thoughts on the methodological aspects of the study.

Tree removal

Due to the importance of ToWPUR in discussions around tree removal in respect to their monetary (Forest Research 2023) and sociocultural value (Forest Research 2024) it is also important to be able to identify and consider young people's attitudes towards removal. During this workshop we first held an informal discussion about tree removal, including young people's experiences of, and feelings about tree removal in their local area. During this session, we introduced some key reasons for trees to be removed, before conducting a ranking exercise.

During the ranking exercise we asked participants to work as a group in order to place the reasons hierarchically, ranked from 1 (most important) to 6 (least important). In addition to allowing participants to come up with their own ideas, we provided the following reasons for tree removal: to make space for housebuilding and roads; clearing land for farming; in the case of disease; to increase safety and risks; and to be used for fuel (Figure 9). Oral data and the removal hierarchies were derived from this exercise.

Tree planting and replacement

We then conducted two exercises designed to elicit young people's attitudes towards tree planting in relation to ToWPUR. First, we did a rapid-fire vote on broad either/or statements about tree planting locations, types, and rationales. This gave participants an opportunity to share their reasons for voting orally and provided a broad overview of the young people's preferences. We then elicited some more in-depth data through an exercise in which participants had 5 leaf-

shaped post-it notes which represented trees they could plant on a matrix of different tree types and locations. After young people placed their post-its on the matrix, we elicited their thoughts and reasoning about their choices, generating insight into young people's understandings of where was the most appropriate location to site trees.

Figure 9 - Ranking reasons for tree removal

Figure 10 - Tree Planting Matrix Exercise (East Sussex)

Finally, we validated the findings by feeding back the main points the research team had identified as emerging from the data on the three workshops and eliciting young people's responses to these, as well as posing specific questions around points that we felt would benefit from clarification. This was a helpful exercise that led to some nuancing of findings, and adds confidence to our conclusions. At the end of this, we also provided the opportunity for young people to reflect and feedback on their participation and the particular methods used.

Across the workshops, the data collected – in the form of transcripts (from groups discussions, peer-to-peer interviews, and workshop reflections), survey results, and visual material (from the drawings, time lines and materials produced in the creative exercises) were analysed following Braun and Clarke's (2006) six-step reflexive thematic analysis: (a) familiarisation; (b) open coding; (c) generating initial themes; (d) developing and reviewing themes; (e) refining, defining and naming themes; and (f) writing for analysis. Some basic numerical data was collated to visualise some general trends, whilst all transcripts were manually coded to help identify both surface level codes and deeper level themes which proved to be meaningful, interpretive, accounts of the young peoples' experiences (Braun and Clarke 2019). In the following report we use illustrative quotes to contextualise and discuss the themes identified in the analysis, with pseudonyms given for anonymity, but ages and locations retained to give an insight into the importance of these factors.

Findings

Young people's experience and care for ToWPUR and associated values

Following the opening brainstorming exercises, we undertook a value-prioritising exercise in which the young people were asked to place these values in relation to trees/ToWPUR in a hierarchy from least to most important to them. Figure 11 shows the cumulative outcome of the words and themes placed in these hierarchies through group discussions between the young people and the researchers. Whilst the individual brainstorming allowed the young people the time and space to reflect on the question, it was apparent that the young people's connections to trees were not, initially, freely articulated, and required a deeper level of reflection and guidance to help reflect. Two broad observations can be made from these opening exercises. First, that young people do not, initially, differentiate between trees and wider outdoor and environmental experiences – echoing the observation of Laaksoharju and Rappe (2017, p.150) that "trees are often mentioned among many elements of nature" and that the place of trees was often wrapped up in wider narratives and the relaying of broader experiences. Second, and interrelated, the young people did not draw a clear distinction, initially, between ToWPUR and other forms of trees (e.g. local woodlands, or global forests) – commonly shifting between scales and geographical contexts in referring to experiences with trees in other parts of the country (such as experienced on holidays) and more global issues such as the discussion of the Amazon Rain Forest.

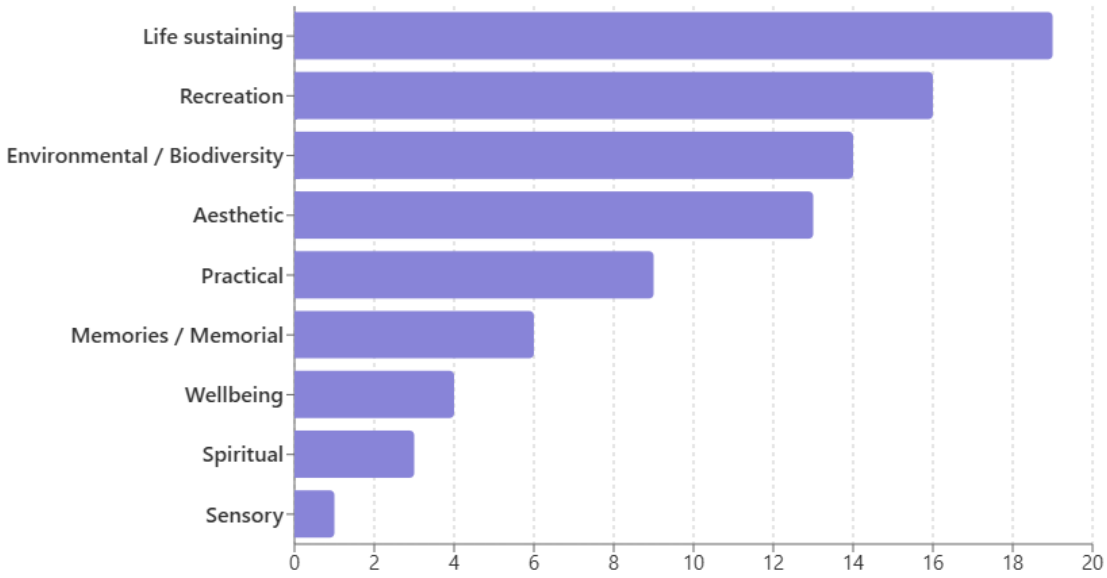

Figure 11 – Prioritised opening values from Workshop 1

The value mapping exercises revealed that young people's values associated with trees were strongly born out of their direct experiences with them and were highly embodied:

> I really notice them if they look good to climb. (Theo, 15, East Sussex)

> You can tie a rope swing on there. You can start climbing them, and it's really fun when you climb them. You can swing on them on a right sturdy branch [….] and you can balance on the big roots at the bottom. (Miriam, 10, Peak District)

> It's quite a good climbing tree. Yes. It's got quite low branches. So, it's quite good to sit on and stuff. Sit and chat. (Lucy, 12, Cornwall)

> I liked the tree that I climbed. I think it was a good experience for me to just know that you can fall off stuff, and it is sometimes unsafe to sometimes climb too high trees, so I think it was a good experience, but it wasn't very fun when I fell off into nettles. (Maria, 11, Peak District)

The recreational properties of trees, and their wider affordances (Palmer et al, 2023) were significant for young people across each of the three sites. Climbing and swinging were reported as important across the workshops as well as chasing games, jumping up to touch leaves or branches, and balancing on roots. Evident here are the relational values (Mattijssen et al. 2020) that arise through the connection between the young people and trees. For these young people,

illustrative of similar statements across the workshops, two significant elements are revealed. First, that trees are an important part of experimentation for the young people, and whilst they are generally part of positive experiences, there were also negative experiences such as falling out of trees. Second, and highlighted across the extracts, is the multi-sensual engagement with trees (c.f Goodenough, 2021). The embodied experience of climbing trees was supplemented with the touch and feel of trees and their leaves and the smell of trees, with comments made on how they could be “mushy”, “rough” (East Sussex) or that “trees smell funny” (Peak District). This was highlighted in a group discussion in the Sussex workshops:

> “Sometimes they look a bit gross -
>
> A bit skanky. […] There's this one tree in [neighbouring town] outside the old School and it's like a massive bit at the bottom and it just makes me feel a bit sick. [Laughs]
>
> When they're dead then they can be gross.
>
> When they start moulding. […]
>
> Where I live there's this tree that's built from sap and it looks disgusting. It looks like spikes and stuff are caught in it.” (Group Discussion, East Sussex)

The multi-sensual engagement with trees was most pronounced in relation to their seasonal changes – which related both to trees’ physical appearance as well as shaping the young people’s physical engagement with them. These seasonal visual aesthetics included both their emerging colour in the spring and more commonly, to the shedding of leaves in the autumn[7]:

> I guess we're out with trees and stuff like - my mum is just, she likes going out in nature and stuff, she loves the autumn when the trees go yellow and orange, so I guess that's kind of like - that's had an effect on how I like trees and stuff. (Mary, 14 Cornwall)
>
> That in some seasons the leaves fall off. Sometimes they grow leaves. It depends what season. In spring, it grows. In summer, it blooms. Winter - wait, I've missed one. Autumn. (Lucy, 12, Cornwall)

[7] It should be noted that these observations may have been influenced by the timing of the research project, which took place in the autumn.

> Probably autumn because it fascinates me how the leaves die off, but then in spring they come back to life. So autumn is probably my favourite because the leaves start to have nice colours, like orange, red, yellow, and yes (Verity, 11, Peak District)

> I think [trees] just makes everyone a bit cheery…because they change over time, I just think it's a fun concept that they can change like we change. We can get moody to happy, to sad, to excited, and that's kind of similar for them. So, in winter, they don't have barely any trees in… In spring, they start to come back with blossom. In summer, they get a lot greener, and in autumn, they get kind of orangey, reddish, yellowish, brownish kind of colour […] and it makes me happy. (Georgina, 11, Peak District).

We see, here, the multi-sensory relational values that young people develop with ToWPUR. This observation reveals how trees serve as natural temporal markers for young people (cf. Dümpelmann 2024), structuring their understanding of time through seasonal changes. The participants' reflection that trees "represent the seasons" (Holly, 10, Cornwall) demonstrates how these natural features act as 'living calendars' in young people's everyday experiences.

Scholars have documented how trees acquire distinct cultural meanings within specific localities (Jones and Cloke 2002), with their significance varying between and across contexts. This phenomenon emerged clearly in our Cornwall findings, where participants identified a 'wishing tree' associated with the custom of healing wells (Cornwall) (Figure 12):

> …it's got some wishing wells and a wishing tree and I really like it. So people will often tie ribbons to the tree and make their wish. I think it's really magical and special. As I said, it's in Madron, and it's quite a thin but tall tree, and it's got hundreds and hundreds of ribbons. I think it's even got one or two socks on it, that people took off their socks and tied around because they didn't have any ribbon. It's funny that. (Sarah, 14, Cornwall)

Figure 12 - Wishing tree in Cornwall

A similarly site-specific example was seen in the East Sussex case, where a particular tree on the village green – the 'shoe tree' - had associations with memorialization as people threw old pairs of shoes, supposedly to commemorate loved ones. For others in the same location, reference was made to more formalised sites of memoralisation:

> *Basically, there's this graveyard that my grandpa and my granny are both buried in which is like when you die you get put in this graveyard and then they plant a tree over you so that the tree can absorb all of your nutrients of your dead body.* (Erik, 12, East Sussex)

Taken together, these examples echo observations from urban contexts that trees can help create a distinctive sense of place for young people (see Lim and Barton 2010). Our data on the wishing and shoe trees show how the values around the practical and environmental functions of trees may be supplemented with less common reference to their role in more site-specific cultural practices and, in turn, how they can serve functions of memorialisation. Running through this is a recognition that trees serve an important function in placemaking and that this works not only at the individual, but also the collective level. Although drawing on less celebrated or widely known examples, the young people in the Peak District brought forward examples of characterful trees which they regarded as place markers – including along school routes with examples such as: "I know I'm nearly home when we see the clump of trees at the end of our land" (Emma, 11, Peak District). In such examples, it was observed that trees may play a more active role

in the mental maps that young people create in developing a particular attachment and sense of place (Koller and Farley 2019) as well as how they navigate through it.

Building on their placemaking value, brainstorming sessions revealed young people's consistently positive associations with trees – with reference to trees being "fun" and making young people "happy", particularly in relation to memories of play (cf. Brown and Kaye 2017). The peer-to-peer interviews and group discussions further elaborated on these positive associations, revealing two distinct dimensions: trees as sites of social connection among young people, and trees as spaces for individual wellbeing:

> Yes, there is quite a couple of trees up at the park - a small park up my road - and me and all my friends play there, and it's just like a secret hang-out place where we can just talk and have fun. (Georgina, 11, Peak District)
>
> There's a tree near where we live and me and [my cousin] go there to be alone and have a chat. (Vannessa, 11, Peak District).
>
> I've always wanted to have a tree-house and I haven't got one […] I'd like my own private space, not just my bedroom. If I'm out in the open, I can feel like the world up above me, and some people might not know that I'm actually there because [my family] always come into my room at random times. (Tommy, 10, East Sussex)
>
> When you're outside - when you're in a lot of your headspace, you can go outside and sit under a tree. (Daisy, 10, East Sussex)
>
> If I get pissed off with my parents, I just say I'm going to go to the Forest Way or something so I just walk off and down there. (Erik, 12, East Sussex)

On the one hand some participants, such as Georgina and Vanessa, emphasised trees' role in facilitating peer interactions and places for youth-centric connection. This related both to their location in places that were considered safer to play and 'hang out' – in being away from busy roads for example – and also their role as place markers and meeting points. Reinforcing other literature, escaping from adult surveillance to trees and the spaces around them was particularly important for some participants (see also Milligan and Bingley, 2007) (Figure 13). Although Tommy's reference to a tree house is hypothetical in nature, it aligns with the broader narratives of Daisy and Erik who report how trees, for them, are spaces for more private interactions, to be apart from others, or places for individual

reflection. These insights not only support well-established research showing young people's need to seek places of retreat (Kyttä 2004; Clark and Uzzell 2002) but indicate how young people engage with restorative natural environments in ways similar to adults, particularly through psychological mechanisms such as 'being away' (escaping demands of daily life) (Kaplan and Kaplan 1989).

There were notable mentions in peer-to-peer interviews and within brainstorming diagrams that demonstrated the intersection between instrumental and relational values associated with trees. These ranged from practical utilities to more experiential benefits. A key example was opportunistic foraging and food sourcing from fruit-bearing trees, which illustrated the convergence between instrumental values (specific utilitarian benefits) and held values (deeper connections with nature and food enjoyment):

> We would walk together and go past hedges and trees near farms and we'd pick up some of the wood to burn at home. (Alicia, 11, Peak District)

> Me and my mum go out for a walk, my mum sometimes hugs trees and sometimes picks apples from apple trees. (Dora, 10, East Sussex)

In Dora's case, the reference to her mum's tree hugging also indicates the role of the local collective norms in terms of the village as a hub for 'eco' and 'alternative' cultural practices and points to the importance of social and cultural capital of families in shaping young people's formative experiences with trees.

As illustrated in Figure 1, several young people referred to the assigned values of trees for material products such as paper and books. While there was, again, a conflation of ToWPUR with forestry and harvested woodlands, the interview extracts reveal how younger people had direct contact with the more productive and extractive values of trees, with regional variations underpinning these experiences. The references to fruit trees were higher in Sussex – where orchards and individual fruit trees are more prevalent – and the use of wood for fuel was more prevalent in the Peak District, where the use of wood burners in the home was common for several of the young people who live in village and isolated locations not connected to mains gas. Importantly, however, whilst the young people across all three areas noted the productive values of trees in articulating their initial appreciation of trees, they featured lower down in the subsequent ranking exercise. A similar process was noted in the discussion of the reported

values of trees for producing goods such as paper and furniture which featured in the initial value mapping. Prompting questions in the peer-to-peer interviews allowed fuller reflection and revealed these were more abstract understandings of trees rather than values specific to ToWPUR and their own localities.

> While participants expressed strong relational values through their interactions with trees, they also demonstrated clear recognition of trees' ecological and environmental functions. This scientific understanding was particularly evident in references to fundamental processes like photosynthesis and oxygen production, alongside trees' critical role as habitats for flora and fauna. Often environmental and relational / recreational values were expressed together, demonstrating young people’s holistic and integrative articulations of their values:
>
> Because they're healthy for the environment, they help you breathe, and they are very fun to play with, and you can put swings and everything like that on them. (Charlotte, Cornwall, 10)

Environmental concerns clustered around two main themes. The first was the widespread recognition of trees' role in oxygen production - while participants readily acknowledged this value, it primarily reflected their understanding of trees in general, rather than being linked to specific observations about ToWPUR in their areas. The second theme centred on trees' function as wildlife habitats and their contribution to biodiversity. This understanding similarly stemmed from archetypal knowledge about trees, but the participants also grounded it in local observations, citing specific examples of familiar places where fauna relied on trees in their neighbourhoods.

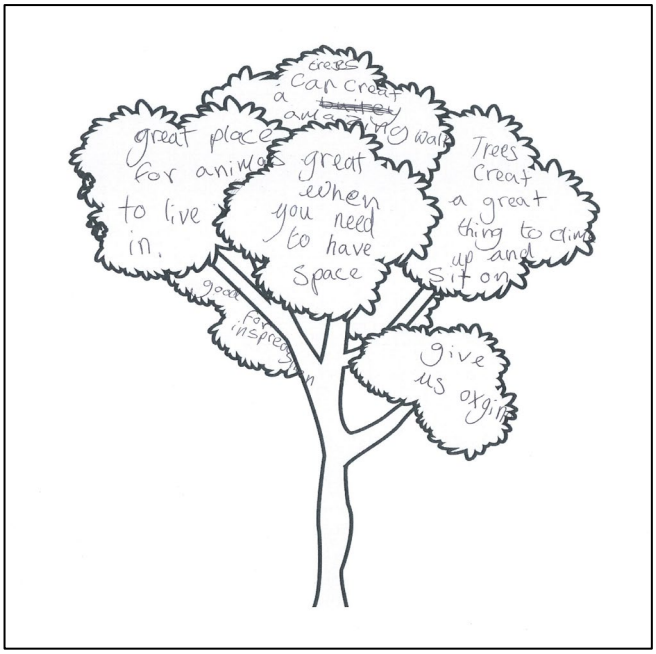

Figure 13 - Brainstorming diagram (Sussex) showing the prioritisation of trees' ecological, habitat, and recreational value

Value formation, influences, and development

Noted in the last section was the importance of direct experience of engaging with trees to young people's care for trees and its significance within value formation and development. Drawing on the findings and initial observations from Workshop 1, Workshop 2 explored the specific role of four domains: family, friends, school, and media. The activities revealed that family and friends (people close and/or important), along with influences derived from the school environment, were significant sociocultural influences. Families were found to be particularly important in early exposure to trees and the creation of memories (Figure 14) as were experiences with friends, particularly in their supportive role with recreational and social activities:

> I used to slide down trees... My grandpa, had, I don't know, like evergreen trees, the ones with the really, you know, it had really thick branches all layered together, but with leaves, well, I don't know, they're not really leaves but down the whole thing. We'd literally climb up and slide down it. (Isabella, 15, East Sussex)

> I remember one time I was on a dog walk with my family, and me and my dog saw a deer jump, just jump over a dead tree, and it was really cool. No one else in my family saw it. I knew that my dog saw it because it was zooming past and my dog just went like this [turns head]. (Rosie, 14, East Sussex)

> Family members talk about trees, my grandparents and my mum and dad, because my mum is dead into her walking, and we do loads of National Trust places. Their symbol is an oak tree, and you could... Yes, they obviously talk quite a bit about trees when you're walking round. (Melany, 13, Peak District)

These and multiple similar references to family activities involving trees highlight the process of socialisation (Bourdieu 1986), where parental values around tress encouraged young people to form a particular habitus. This was seen in three intersecting forms. First was how outdoor family activities socialised the young people into positive interactions with trees and positive feelings about trees. As noted in the brainstorming diagrams, sometimes this involved specific places such as National Trust properties, with embodied experiences with parents grounding a positive attitude towards trees (see also Larson et al. 2019). Second, trees played a backdrop to positive memories and recollections with families – such as those of Rosie and Isabella – and help explain the aforementioned strongly positive associations with trees. Thirdly, albeit less prominent, there was evidence of more direct messaging from parents around trees, hinted at in the extract from Melany. This, as the report will return to later, related to elements of play and safety, but also related to specific facts about trees and the naming of tree species. Such processes of socialisation were also seen to be intergenerational - with grandparents commonly referred to as part of this early exposure to trees, with particular mentions (although not strictly ToWPUR) of trees in grandparents' gardens or memories of them planting trees.

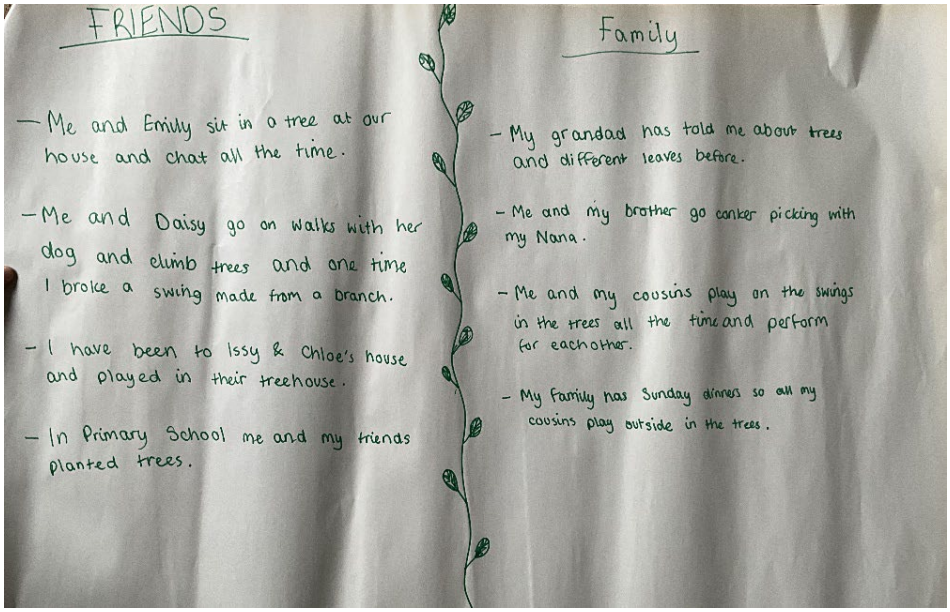

Figure 14 - An example of the consideration of family and friends in relation to ToWPUR

School was reported as an important influence on values across each of the sites. This related both to early exposure to experiential engagement with trees, as well as how care and values around trees may develop over time:

> I can specifically remember one teacher in my first school…took us out to the trees to draw. I think that thing was pretty cool, because she'd take the kids out and some drawing lessons and you would go out to the trees, and you learnt about trees, or find certain leaves, or do bark engravings. (Alisia, 11, Peak District)

> When I came in Year 4 or something...we did forest school, which they explained a load about trees there, and also, there was this - when I came in Year 4, there was this thing where we had to make a letter that would go to the Queen about - like to stop deforestation. Obviously, it didn't, but it was good. (Erik, 12, East Sussex)

> I remember in primary school, we had three trees and we named them and we used to always argue about what names we'd actually end up picking. (Isabella, 15, East Sussex)

Similar to the influence of families, schools were important as sites of exposure to TowPUR, but were augmented with factual understandings of how trees work, as well as their wider value. Within this school experience, it is apparent that there is an evolution from more experiential learning to more factual understanding. Within primary schools, trees were used to learn through (such as drawing in the case of Alisia) and engage with activities (through bark rubbing) which transitioned into

learning about trees. Intersecting with these more formative experiences were para-school and extra-curricular activities:

> Personally, I was really inspired by - remember when we had, what was his name? - Steve, the forest school person […] Yes, if I ever - grew up, I wanted to be a forest school teacher at one point because of him. It was really cool. (Erik, 12, East Sussex)

> In Cubs - I remember making houses of sticks with my friends in one of our trips. Suddenly one of the leaders came out with a bucket of water and they said, 'Let's see if they're good enough to survive in.' As soon as I saw the bucket, I instantly got out of my tent so that I wouldn't get wet! (Tommy, 10, East Sussex)

Forest Schools in particular, and clubs like Brownies, Cubs, and Scouts more loosely, were reported as activities which provided important memories of trees, as well as interactions with them. Significant, here, is the importance of individuals within this process – such as teachers and forest school leaders, who have made these experiences more memorable. This aligns with Morris's (2006) and O'Brien and Murray's (2006) findings in the National Forest, where social connections and guided experiences in woodland settings were found to create lasting impressions and meaningful relationships with natural spaces. As the timelines suggest (Figure 15 and Figure 16), there is a movement toward appreciating the more ecological and scientific significance of trees as the young people progress through school. While a few participants expressed frustration with the formal examination-oriented approach to learning about trees (such as memorising photosynthesis processes), their overall reflections suggested that this broader scientific education nonetheless contributed positively to shaping their values and understanding of trees:

> If they're telling you trees are so good for the world and they provide oxygen and we shouldn't cut them down, then you're going to think of them more positively […] if they weren't speaking about them, I probably wouldn't think about it that much, but because you get taught about all that kind of stuff, you think they're good. (Isabella, 15, East Sussex)

> Well, recently, in our picture news class, we found out about the trees and forests around the amount of Switzerland was chopped down, and that just kind… In the Amazon rainforest, and just made me a bit disheartened because we need them, and all these people know that we need them, too. (Miriam, 10, Peak District)

> I think that school has really changed the way that we think about trees, when you go higher up, because it talks more about like the scientific bits about it and how important they are for us to live, and the animals, and everything, really. (Imogen, 11, Peak District)

> So, we have six school values, and then we have these value days, where half of the day each lesson is like a different value, and normally, at least one of the values is like kindness, and then it's like kindness to trees. (Erik, 12, East Sussex)

The examples highlight how, particularly in the primary years, positive values towards trees are fostered in school, with the progression from recognising how trees can be fun to play with and in, through to understanding the importance of trees for the environment and how they are something that should be respected and cared for. These recollections, and their recording within the timelines, align with Brown's and Kaye's (2017) observation that early experiences can shape positive dispositions towards trees in later life.

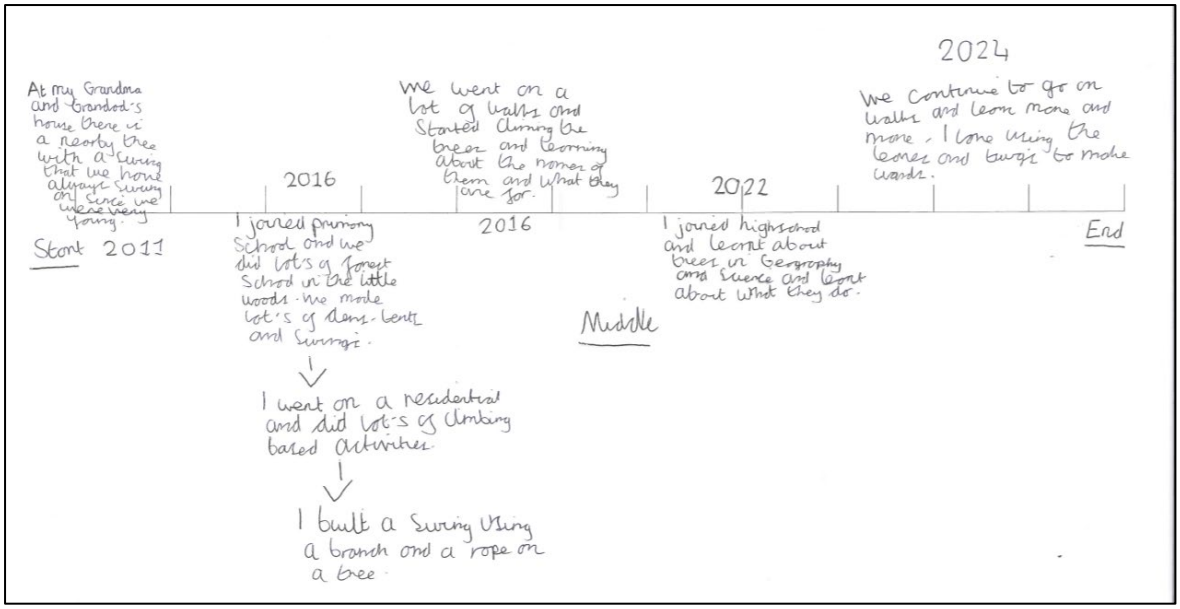

Figure 15 - Timeline of Mia (12, Peak District)

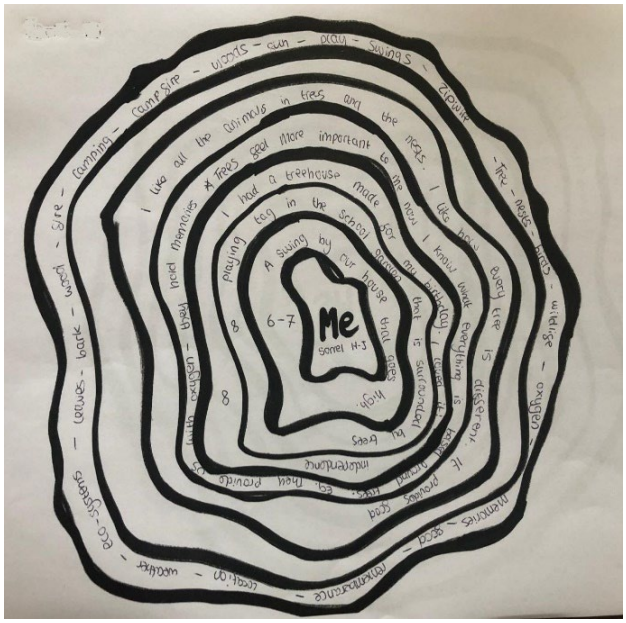

Figure 16 – Phoebe, 12 (Cornwall)

> The importance of friends mirrored that of families, contributing to the broader importance of familial and social connections in value creation and transfer. This intersected with school and extracurricular experiences, where friends featured prominently in recalled memories:
>
> Me and my friend used to sit in this one tree. When I saw the tree, it made me feel happy, but then she ghosted me. So, then when I see the tree, it makes me sad. (Rosie, 14, East Sussex)
>
> Last year I was out with one of my mates and we found a rope swing, so we were swinging on it and it went over a river, and one of us was playing on it […] and then one of us let go. I let go with one of my hands. I was swinging by one of my hands […] And then I like fell, but I barely missed the river. (Jason, 12, East Sussex)

The workshops revealed that trees were often imbued with happy memories of playing and socialising with friends both in an in structured way, where trees would be encountered whilst playing outdoors (in Jason's example), and as purposeful meeting points with others noted earlier (Figure 17). These early memories, as observed by Beery and Lekies (2019), remain vivid in later life. So too, they highlight how active engagement with trees – that is physical contact and engagement with the trees, such as climbing and swinging in this case – may cement these memories more clearly (cf. Lohr and Pearson-Mims 2005). As the timelines, trees were also spaces for playful creativity as observed in the wider literature (Zamani 2016) and amongst other respondents. This involved both games devised on and around trees, especially in their younger years (as in

Phoebe's case) and practical creativity in building their own swing in the case of Mia. As will be explored later, participants reported a clear evolution in their relationships with trees as they progressed through school and grew older. These included not only recreational activities but notable stories of risk taking and accidents:

> This time, when me and my sister got chased up that specific tree that I was talking about, and we just sat there for ages in the tree, getting scared that this dog was going to bite us. (Freya, 12, Cornwall)

> When my [friend] broke her arm, my sister and she was trying to get my friends' toy out the tree - little dinosaur toy. And she climbed up on the trampoline and then swung from the branch and landed on [the] edge and broke her arm and her wrist. And the funny thing is she just sat crying in the corner for another hour until we actually realised she'd broken it. (Luna, 10, Cornwall)

Freya, Luna and others describe how trees formed part of recollections of more scary or dangerous activities – particularly related to injury – even when these were recalled in a light-hearted way. Moreover, it showed how trees had formed part of their free play, adventure and experiential learning with friends.

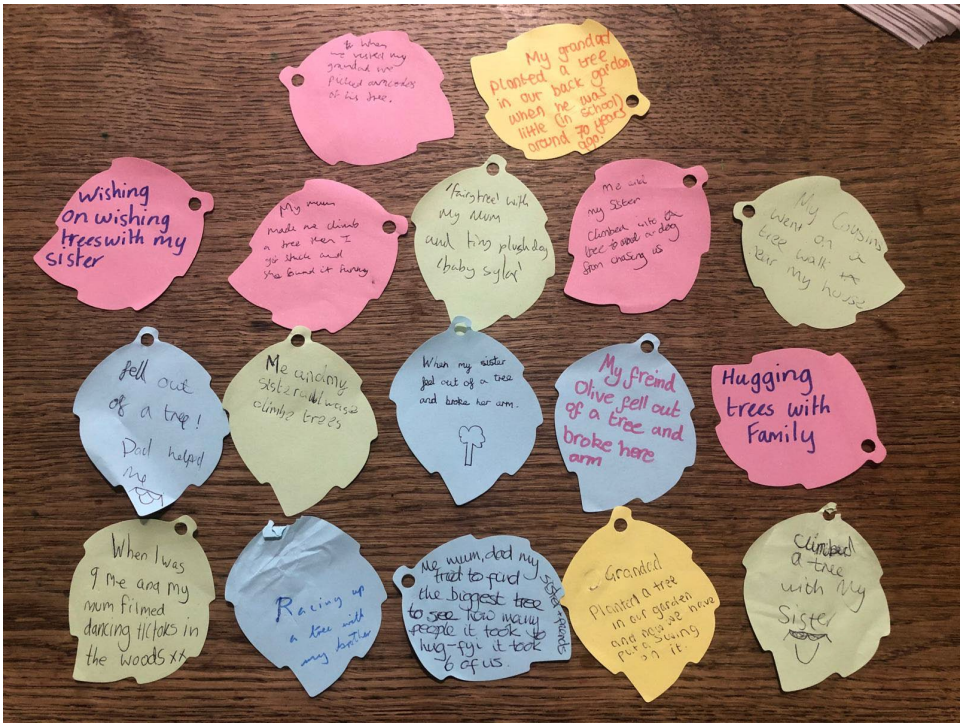

Figure 17 - Reflections on the importance of friends in the context of thinking about trees (Cornwall)

The influence of media (including print media, social media, television etc) was less often pointed to than families, friends, and school in the material that the

young people produced, as well as in subsequent discussions. A diverse array of media were mentioned across the groups, making it hard to identify any particular single prominent influence. Where television was mentioned, this was more often to do with forests and woodlands - with David Attenborough documentaries the most often referred to (mentioned over 10 times in the Workshop 1 exercise):

> David Attenborough has influenced my views on trees [….] he made a programme about saving the trees and it really got me into nature, and now I want to save the trees. (Tommy, 10, East Sussex)

> I saw on that [David Attenborough] programme, like there's deforestation and just how things are so important, and the trees that are like 100 years old. (Clarissa, 12, Peak District)

Similarly, reporting of news items extended as far as the recent attention paid to the Sycamore Gap[8]:

> My mum was telling me about that tree that's been cut down somewhere, it was all over the news, but I haven't heard it. (Rob, 10, Cornwall)

> BBC News - because, recently, the oldest tree in the country got chopped down by some randomer, causing lots of people to be quite mad and sad about it. (Josh, 13, Peak District)

The reference of Rob, who notes hearing about the Sycamore Gap story from their mother. Alongside the general lack of reference made to television and news media across the discussion – including specific references to “I don't really watch the TV that often” (Sam, 14, Cornwall) – the quote highlights the potentially adult-centric nature of such information sources. The discussions revealed that there were more age-related sources of information that were more commonly drawn on by the young people – but that these were often at more abstracted and geographically and socially distanced levels, and not distinguishing between ToWPUR and woodlands more generally:

> There are some podcasts about how to help trees and not cut them down, and on YouTube Mr Beast planted 100,000 or 1,000,000 trees or something to save the environment. (Josh, 13, Peak District)

[8] https://www.bbc.co.uk/news/uk-england-tyne-66994729

> The Lorax [Film] […] It's just about trees. It's full of trees […] Whenever somebody cuts down a tree, he comes down and he says, 'If you don't leave this forest, then something really, really bad will happen.' (Tommy, 10, East Sussex)
>
> Certain games have sacred trees […] -
>
> On Fortnite […] you hide in them and you can…
>
> You don't hide in trees!
>
> Yes you can, you hide on the top of trees and shoot... (Group Discussion, East Sussex)

These observations reveal a hitherto underexplored theme - the way that young people interact with, and come to understand, trees within virtual spaces. Although these were often fictional in nature - such as The Lorax (film) or virtual gaming worlds - they had the cumulative effect of reinforcing the view that trees are valuable and worthy of protection and served to reinforce the values instilled at school around the problems associated with broader-scale deforestation. Whilst children's fictional literature has been reported on as potentially important in influencing young people's understandings of environmental issues and climate change (Kostamo, Vesala, and Hankonen 2019; Lindgren Leavenworth and Manni 2021), the observations from workshop 2 found a less detailed articulation in relation to ToWPUR. Passing references were made to fictional books and films that featured trees, but the young people did not elaborate significantly, in groups discussions or peer-to-peer interviews, on how these shaped their thoughts and values. Like in the case of Tommy, these fictional sources contributed to a more widely held view amongst the young people that trees were positive and should be protected, but this was prioritised below those experiences through school and with family and friends. The key observation, here, is that these online platforms are more likely than traditional formats, such as the print media or television news, to be routes through which young people might be engaged.

Although the young age of participants meant that it was difficult to trace a value change *per se*, their timelines and peer-to-peer interviews revealed subtle changes to their engagement with trees as well as the importance they placed on respective sources. At one level, this related to the changing nature of play as they got older. Across the study areas, all groups referred to climbing trees and some made reference to how this has become less important as they had got older:

> Yes, there is a tree quite near me that I used to climb quite regularly. I don't do it so often anymore because I'm getting a big for it, but yes, I do, I did enjoy that tree. (Sean, Peak District, aged 13)

> There were a couple of trees we climbed there, we still meet up there if we go out together, me and my friends. (Melany, Peak District, aged 13)

Gender differences within this playful interaction with trees were noted from the timelines of the young people, with girls reporting that they had ‘grown out of’ climbing trees and “don’t play on them as much now I’m older” (Isabel, 14, Cornwall). In East Sussex, participants identified ‘growing out’ of tree climbing as occurring for girls when they reached 8 or 9 years old, but for boys tree climbing extending into adolescence, though becoming less frequent from mid adolescence. At a second level, while one factor in value change - entering a new culture (Lönnqvist, Jasinskaja-Lahti, and Verkasalo 2011; Bardi and Goodwin 2011) - did not apply to the young people in this study, they were examples of several referring to changes in their context. As mentioned earlier, this included changing relationships with parents, as well as their style and spaces of play, with Melany noting how her connection to trees had changed as she got older, from a focal point of play to a space of peer interaction as independence increased. What can be seen, here, is an evolving habitus in relation to trees.

Perhaps most significant to the evolution of values was the role of the school. The school exercise book activity – undertaken as part of the school station in the world café in workshop 2 – offered a clear insight into how the science of trees became more significant as young people moved through the curriculum. The young people were able to demonstrate impressive understandings of processes such as photosynthesis, and able to reproduce diagrammatic representations such as those of leaf structure (Figure 18 and Figure 19). These more scientific understandings were intertwined with messages from school around the deleterious impact of deforestation at the global scale, which cumulatively shaped the view of all of this age group and meant that these environmental themes featured highly in initial reflections on ToWPUR. Although, analytically, we separated these influences, there was evidence of their intersection in shaping the young people's values around trees with strong direct experiences across school,

friends and family experiences, with learning about trees connected to a range of school, family and, to a lesser extent, media influences. As Figure 16 and Figure 17 suggest, observations from across the workshops suggest that experiences that combine both cognitive and experiential elements – such as school learning *and* embodied learning in clubs or forest school – are powerful in shaping values. This is supported by O'Brien and Murray's (2006) evaluation of Forest Schools in England and Wales, which found that combining experiential outdoor learning with formal education created "ripple effects" beyond the school environment, influencing family attitudes and behaviours towards natural spaces while enhancing children's knowledge and emotional connection to woodlands.

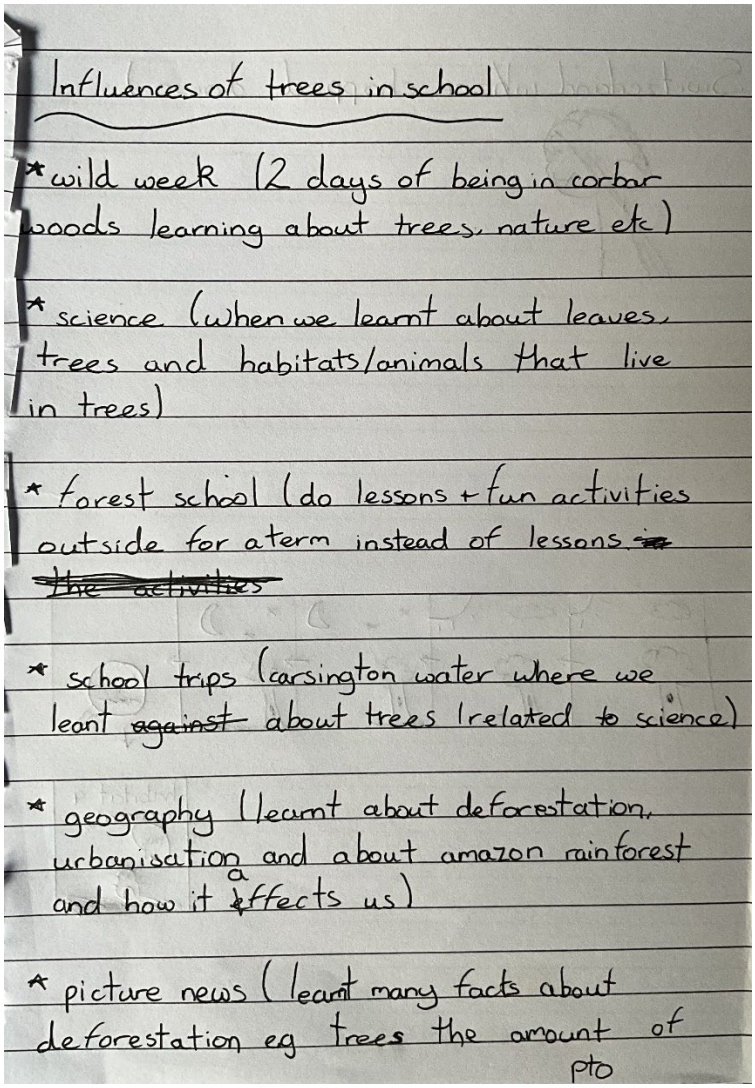

Figure 18 - Trees in different aspects of school

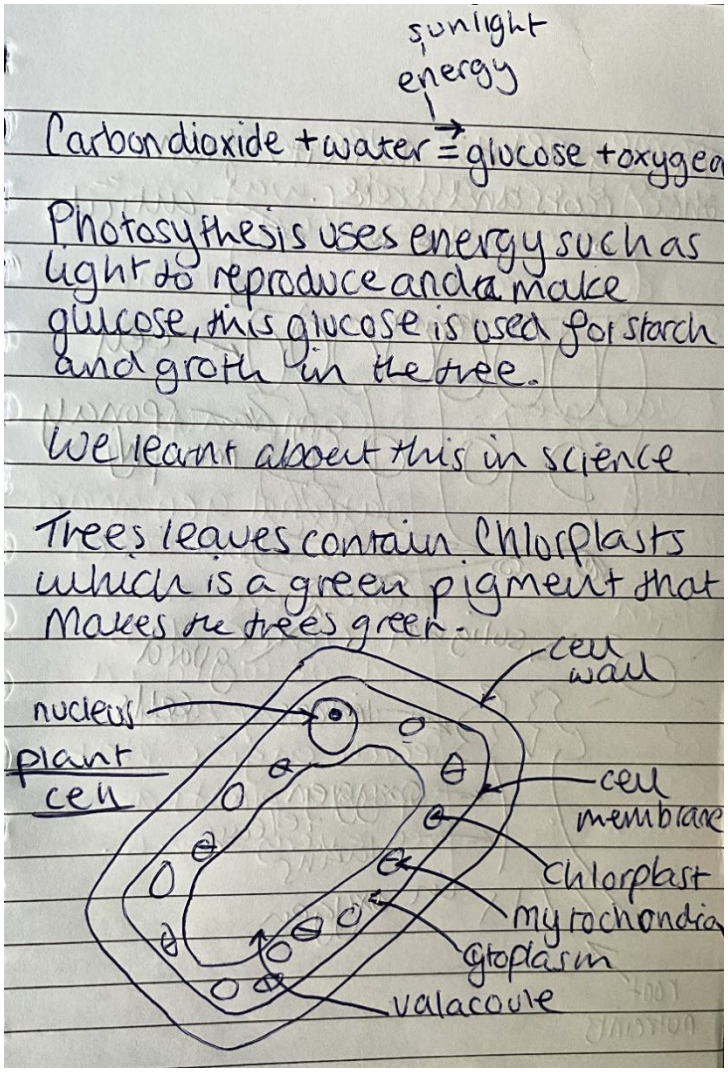

Figure 19 - The importance of school to scientific understandings

Values around loss and siting of trees

*The values associated with play and the environmental benefits of TowPUR came through in discussing scenarios relating to tree removal and siting (discussed in workshops 3 and 4). In presenting scenarios for tree planting to elicit value orientations, the Peak District and Cornwall workshop participants prioritised the Environmental Scientist Scenario, and those in Sussex showed greatest preference for trees fitting within the Recreational Planner Scenario (*Figure 20*). Whilst these preferences offered a broader picture on values, the interweaving individual and group discussions gave insight into how values were prioritised and brought together in debating each of these options and their merits, and also highlighted that regional context shapes values and how they are mobilised. The*

consideration of the recreation option in East Sussex was in the context of the scenario being overlaid onto a pre-existing green space with recreational features adjacent to the youth centre, and one that carried an attachment and emotional significance, with greater concern for the local, whereas it was considered more abstractly in the discussions in Cornwall and the Peak District. For the Cornwall and Peak District groups – which prioritised the Environmental Scientist scenario - the development was seen as a 'scaling up' issue - wherein the aforementioned environmental values of trees, and their role in climate change mitigation (which, as suggested, were heavily influenced by learning at school) was seen as significant, even if, under the scenarios, they would be planted in smaller number. These values were, accordingly, used to rank this scenario higher than those of the Recreational Planner and Community Wellbeing Practitioner:

> I think it's important that, especially young kids about our age, start acknowledging that, um, our planet is slowly getting warmer and decreasing a lot of trees. (Georgina, 11, Peak District).
>
> Because [the scenario is] not for nature, it's just for people, and people aren't allowed to do some stuff except just sit there and admire the view. (Rob, 10, Cornwall).
>
> I think there's plenty of space for recreation such as parks and play areas, and places to climb trees as well. I think this just needs to be a bit of space to nature-based landscapes […] I know it's only one place, but if people could start doing this all over with spare pieces of land then soon we'll be well on our way to tackling climate change and really slowing it down and keeping the world great for the next generation of people. (Sean, 12, Peak District)
>
> I just think wildlife, it's more important than recreational, because, yes, it's good to have fun and going outside, or keep your mental health up, but then trees help - they might have to get cut down for recreational places, but if they're kept, they can give more oxygen to people and that, and more help them breathe better. (Bret, 10, Peak District)

Whilst there remained a conflation of ToWPUR and areas of woodland or forests, the narratives around trees as important for oxygen and habitat were foregrounded. Sean's response expanded these thoughts in two directions. First in seeing this potential new site not simply as contributing to a greater good but noting how such developments might encourage further tree planting in other areas. Second was how this view was framed in relation to their local context - with the Peak District, and, for the most part Cornwall, offering, in their opinion,

ample pre-existing recreational spaces. This was echoed in the Sussex example as a rationale for not choosing the Environmental scenario – with the young people noting that there were ample greenspaces (including trees) but bemoaning the lack of local recreational facilities:

> I'm not against rewilding, we just don't think it's necessary here. (Isabella, 15, East Sussex)

> I feel like [Our village] is already quite a tree-populated and nature-populated place. (Robin, 13, East Sussex)

Together, these examples illustrate the way that values are realised through, and shaped in relation to, the local context and micro-geographies. In each of the cases, the respective values associated with play and the environment were used as a rationale for not choosing the other land use. Looking at the notes made, as well as the group discussions around their choices, it was clear that both of these themes were drawn on ranking the Health Practitioner scenario below that of the Environmental Scientist. In expanding on this reasoning, the young people from East Sussex and the Peak District demonstrated the importance of their local context in reaching a decision:

> It gives children more of a place other than the park down there, which isn't really that good. It gives it more of a nature vibe so it doesn't feel disrupted, like how we've done with the skate park. (Theo, 15, East Sussex)

> Also, it gets the younger generation outside because it's something a lot of people struggle with because like in [nearby town], there's not enough to do but if you come down locally, you don't have to pay money, you don't have to worry about people getting attacked. It is a nice like area and not enough people climb trees. (Jason, 12, East Sussex)

> I do think spaces for playing in like this are important. Not everyone has this sort of place that they can go to […] I go to school [in nearby town] with a lot of people without things like this, nowhere to play in like this, so I could see the benefit of more of them about. (Sean, 12, Peak District)

Such extracts highlight how both local understandings and community mindedness were important to the young people. Across each of the areas, and especially amongst the East Sussex example where the group were passionate about their local recreations spaces, there was evidence of local knowledge, including community priorities, shaping what the young people valued. Whilst

there were strong elements of their own perspectives within this, the young people also referred to the importance of inclusion and accessibility. This related to the lack of current provision, often voiced in relation to people less fortunate than themselves, echoing research which has referred to the over-ordering of many formalised spaces of play (Ward 1990).

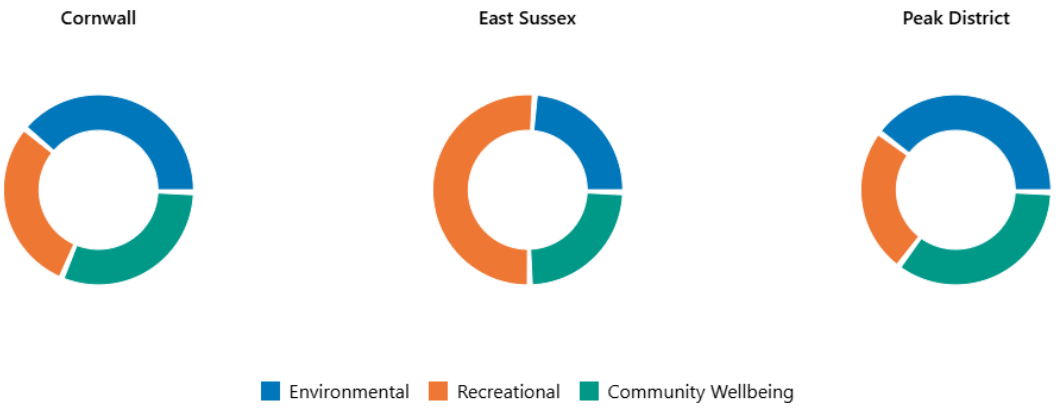

Figure 20 – Distribution of scenario choices across the three study sites

In group discussions around the value of these tree scenarios, the young people highlighted several concerns about their longer-term management and maintenance. These responses can be categorised as showing concern over practical considerations, the changing (or diminishing) value of the tree spaces over time, and the nature of their inclusiveness:

> Will there be birds or woodland bits? Will there be gardeners or people that are hired to make sure that the trees don't grow too big? (Rob, 10, Cornwall)
>
> If there is any rubbish or anything on the floor and people don't pick it up, would the warden tell them off? (Martha, 10, Cornwall)
>
> What about if people go down there [wellbeing area] for a target, to make fun of other people - because they know that there'll be people there who are depressed, who will be able to be made fun of? (Erik, 12, East Sussex)
>
> I chose [the recreation scenario] because it's for all of the ages, and then for the older groups, they're going there, and they can stay out of trouble. They're not going around and faffing about and getting themselves into trouble. (Molly, 13, East Sussex)

Inherent within these discussions was understanding amongst young people of ToWPUR as managed rather than wild and the belief that “they can’t just be unmanaged” and “it will run wild if nobody looks after it” (Peter, 10, Peak District), as well as concerns about safety and risk. In exploring which tree scenarios they would prefer, discussion included concern over the long-term care and the additional inputs that might be required further down the line. Although the decision making process showed the young people foregrounding environmental values, they were also concerned about ensuring spaces were inclusive. Their rationalization of the chosen scenarios revealed a desire to benefit the broadest number of people possible, and avoid creating spaces of exclusion. This manifested differently in the Peak District and Cornwall than in East Sussex where, in the former, there was a prioritising of the environment over people, with the view that “this would benefit everyone in the long-run” (Billy, 10, Peak District), whereas in East Sussex, the decision to prioritise recreation was balanced against the view that there were already sufficient spaces for other purposes (such as environmental gain) and concern that new tree spaces should be accessible to a range of different groups.

The matrix exercise and discussions around siting and expanding tree cover focused on both the broad locations, as well as the types of trees (broadly conceived). Here, everyday spaces were again central to the young people (see Figure 21) with school, parks, and village greens seen as the most appropriate place for trees. Whilst the young people pointed to the practical values of trees in general, this was less pronounced in the siting of trees - with preference shown for the aesthetic properties of trees (flowering trees), trees for fruit growing, and those associated with play. Although a broad pattern of preference is observable, the discussions around decision making pointed to young people’s preferences for holistically trying to integrate multiple uses on the same sites:

> It's a mixture of all, I'd still keep the field in there. You could have in one corner the skate park, another corner the wildlife area, where there's a bunch of trees, different types of trees like cherry trees. […] We'll give them a variety of trees around that area to make sure that there's things for people to admire and see as beautiful. […] on another part I'd have the playground area for the younger kids to go and have some fun

> exploring, climbing, playing, running around each other. Giving them a big idea of what to do. (Theo, 15, East Sussex)
>
> I was half and half. We should plant a bunch of trees, use half of them for the food and timber and firewood, and the other half for all the play and well-being, because a lot of people have trees as their own private space where they need to calm down, then they'll have one specific tree. (Tommy, 10, East Sussex)
>
> It needs to be a mixture of things, you could have all of these trees there, rather than just one. (Peter, 10, Peak District).
>
> I think we need more trees around deserted, boring areas with barely anything on it. We've got this place; it's just so boring. It's just this field, and it's not private property or anything. It's just a field that's near the park that I play on. It's no one's property. No one's nothing. It's just zero trees, zero anything to do on there. It's really boring, and that's where I'd like to see some more trees because trees take in oxygen as we give carbon dioxide back to them, so that relates to that because we need more oxygen to survive, especially with quite a lot of people being born every minute. (Georgina, 11, Peak District)

These examples represent a common observation across the workshops that the younger people felt that different tree types should not be limited to one locality. Moreover, Georgina's account highlights the view that more barren and uninspiring places would be enhanced by, and should be the target for, planting new trees. This perspective was particularly relevant for participants from Cornwall, where coastal exposure results in limited tree cover. Young participants articulated the importance of trees to their landscape, with Suzy (10) noting how trees "really add to our landscape." This sentiment was echoed by Evie (10) who advocated that "there should be more trees," while Amelia (13) emphasised that without them, the environment "would look really plain and boring."

In drawing from these examples, the results from our tree planting exercise, and the corresponding commentary and discussion among participants, it was observed that young people have a strong sense of "right tree, right place" (Breyer and Mohr 2023). This was evident across the three research sites where participants offered assertive and collectively coherent rationales for specific tree placements. For instance, they advocated for fruit trees in communal spaces such as schools and village greens, specifically reasoning that these locations would enable their enjoyment as a public good. Rather than limiting certain tree types to

specific locations, participants demonstrated sophisticated understanding of how tree characteristics could best serve community needs in different settings.

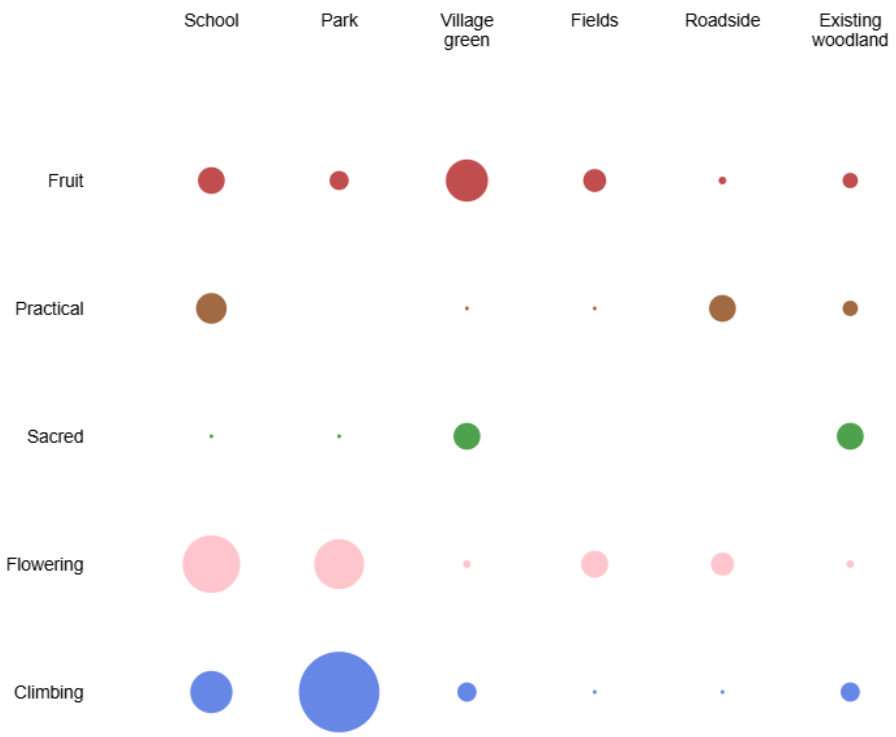

Figure 21 - Relative importance of tree planting/expansion against location

Figure 22 shows the broad findings from the workshop discussions around why tree removal would be permissible. Greater concern was shown for those trees considered to be more mature:

> I think trees should be protected, but maybe not all of them, because some of them are just little trees that maybe we do need them, but they're not as well protected because things like oak trees need like 50 years to grow. They need to be protected because that is a long time, and if they're halfway through that and somebody chops them down, that's not very good, is it? (Alisia, 11, Peak District)

> Personally, I prefer older trees and bigger trees to the smaller ones, because the smaller ones I always think I should be really careful of and worried that I'll break them. Whereas the bigger trees, I love to climb on and do stuff with. (Daisy, 12, Cornwall)

Safety reasons were the most common thing pointed to when the young people were giving examples of where they had observed tree felling - which included following storm damage (Peak District) and risk to properties (Cornwall). Safety was often considered in tandem with disease with participants recognising the relationship, and importance of diseased trees that need to be felled for safety reasons:

> Here there's a load of trees that get spray-painted with orange dots, and at one point they had a load of signs on them that was saying why they were getting cut down. It's disease but I can't remember what it's called. […] When that got cut down, a lot of people were like, 'Why did they do that?' So it's quite good that they're explaining it. (Erik, 12, East Sussex)

The participants' understanding of the validity of felling was largely due to the potential threat to human life through falling, rather than being able to articulate specific tree diseases or the felling of trees for the control of disease spread.[9] Moreover, it should be noted that across the discussions, felling was seen as a point of last resort, with observations such as "I wouldn't chop any of them down unless they were dangerous or were going to be replaced by other trees" (Mia, 12, Peak District).

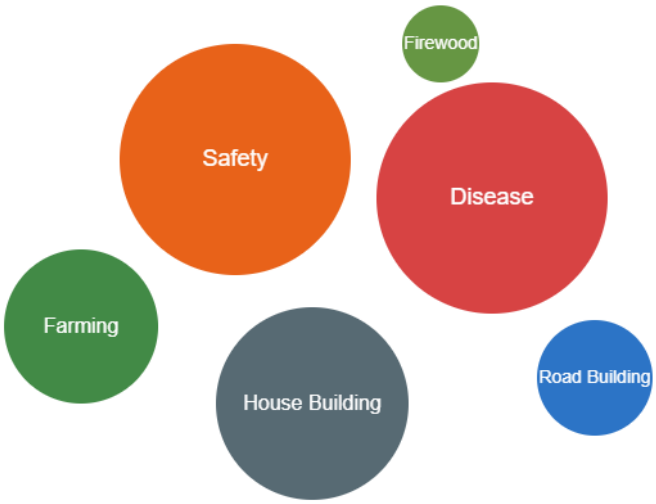

Figure 22 - Relative importance placed on reasons for removal

[9] This was in spite of widely-reported tree disease issues in each of the locations (Cornwall: https://www.bbc.co.uk/news/uk-england-cornwall-58998190; Peak District: https://www.bbc.co.uk/news/uk-england-derbyshire-67544873; Sussex https://www.bbc.co.uk/news/uk-england-sussex-66509493).

Farming and food production was ranked the third most valid reason for the potential clearance of trees - often with reference to pragmatic reasoning such as “we need food otherwise we’ll die” (Jamie, 10, Peak District), but there was regional variation with young people in the Peak District referring to how farming should be considered alongside tree expansion:

> I do think it's important to plant trees, but then as if you're a farmer or whoever is farming the ground which is producing food for us or the animals to feed which, unless you're a vegetarian or vegan, I don't know what you call it, you need the meat, so I don't think you should plant trees on local grounds that are being used for the farming purposes. (Imogen, 12, Peak District)

> In my opinion, I don't think they should be planted in the middle of fields, rather than around the sides, then we can harvest the middle that is productive. So, there should be more trees, but only around the edge of fields where we can mow and harvest the land. (Clarissa, 12, Peak District)

The extracts echo the earlier observation that young people prefer ToWPUR to be developed as part of mixed land uses, and reaffirm the view that these should benefit the broadest number of people possible and, in this case, people outside the locality of the trees who might consume the food produced.

Perhaps unsurprisingly, given the value place on the trees’ environmental importance and their role in leisure and play, road and home building were the lowest ranked reasons for removal. The specific contexts of the young people could again be traced within these responses:

> It’s more about the big highways in the middle of the countryside. We don’t really need a big highway. (Clarissa, 12, Peak District)

> Quite a few people have second homes and stuff. So, if they just sold their second homes, then there would be enough houses. Also, it's the price of houses as well. (Fiona, 12, Cornwall)

> Well, trees switch the air pollution for oxygen, and then cars create the air pollution. So, if we have more roads, that means more cars, which means that we should have more trees. We just may have to place them along the sides of the roads, or have a bank in

> the middle of the roads where we plant the trees. If we do need to get rid of the trees for the roads, then we should at least try and replace them. (Rob, 10, Cornwall)

> I just thought that, at the moment, because, obviously, there's deforestation going on […] chop down old trees and we have new ones planted already and then in a few years' time and they're ready, and then the next batch are ready, so it can be sustainable. (Charlene, 11, Peak District)

The Peak District and Cornwall participants in particular viewed the building of new roads as something difficult to comprehend - given their relatively remote locations and the tight planning restrictions on development. For Rob, it was felt that developments such as road building should be accompanied with further tree planting rather than removal. Charlene, echoing Mia's earlier quote, welcomed an approach similar to that of biodiversity or carbon offsetting in suggesting that any development which involves the removal of established ToWPUR should involve planting new trees.

The consideration of the 'sacred trees' – which, as the earlier references suggest, were more prevalent in the Cornwall and East Sussex cases – featured relatively low in the ranking of new trees, but young people still expressed cogent articulations of values and siting around them:

> The sacred trees could go in a wood, because the Chained Oak is in a wood. (Mia, 12, Peak District)

> Yes, we don't really have very much. I don't know. I think they need to be somewhere where there's a bit of activity, because people are just going to come and think it's a bit boring, really, so they need to be near farm shops and villages. (Sean, 13, Peak District).

> Well, I think sacred trees should really be in maybe a forest or a National Trust place, because then you'd get more tourism towards them, and maybe people would take more liking to the trees and the animals. (Imogen, 12, Peak District).

> *I'd put a sacred tree at village green because I think it would be memorable. It would just become like a part of our tribe here.* (Robin, 13, East Sussex)

> *I did a flowering tree at school because I feel like I just like looking at a nice tree. I did a climbing tree at the park because […] usually there would be your parents or you're old enough to watch out for yourself. […] Sacred tree, village green, because I like the shoe tree that we have.* (Isabella, 15, East Sussex)

In considerations of ‘sacred trees’ as more hypothetical in the context of the Peak District, a concern was shown that such trees would attract more visitors and should thus be placed in existing woodlands, or in places close to existing inhabitants, so that they could be appreciated by a number of people. For Sean and Imogen, they showed concern that these should be managed in relation to wider tourist attractions and should have a more clearly designated management approach – such as that seen by the National Trust. In contexts where there were pre-existing examples of ‘sacred trees’, such as East Sussex, young people expressed wanting to site them in ways that reflected their value as sources of community gathering and collective meaning-making.

In concluding the workshops, the young people were asked to reflect on whether their thoughts and values around trees had changed as a result of the workshop activities. The following extracts reflect the broad themes from across this discussion:

> I don't think it, but I think my age group probably take trees a bit more for granted, but I think now I've done the workshop I feel I can see how important they really are. (Georgina, 11, Peak District).

> I've never really put any of my own thoughts into it. I've only really done about it at school, but now I have thought about it. (Melany, 13, Peak District).

> I notice them a lot more than I did before, like I've learnt a lot more about them. (Olivia, 10, Peak District).

> Well, I used to think - I knew they gave oxygen, but then I used to just think that they didn't do much, but I've learnt how important they are, and how they can just make everybody's day feel better. (Bret, 10, Peak District)

> I just thought that they made oxygen, but I now know that it helps wildlife adapt and live. (Peter, 10, Peak District).

> So I have definitely been noticing trees more because at first, I'd be like, trees - cool. Now I'm like, trees play a big part in our lives. They play probably the biggest part in everyone's lives… I definitely felt a change because at first, I'd just skip over them, but now I just stop and think, what would happen if all of these were just chopped down? (Tommy, 10, East Sussex)

> It's made me, I guess, want more trees because it's made me think about how much they have more impact on my life than I would have thought about, and not just in the

environmental sense, connections with memories and stuff like that. (Isabella, 15, East Sussex)

Interviewer: How did you find the session with the youth council, voting on plans for the green?

I found that really good because … it's never going to happen, but it's giving us a choice of our own. (Erik, 12, East Sussex)

[The youth council session] was pretty cool because it affected everyone and we could all have a speak at it and it was pretty nice to know that even though it probably won't happen, it's still nice to have an opinion on what you want to happen to something that you're close to. (Jason, 12, East Sussex)

As Lyons *et al* (2006) suggest, values may be (re)structured within groups, and the extracts reveal how the view of trees as more passive backdrops to wider outdoor experiences has changed during the course of the research. Reflecting on the scenarios and recalling their own experiences brought forward previously unarticulated values around ToWPUR, whist reflections on the workshops themselves suggest that the young people are open to expanding their understanding. On the one hand, these reflections show the potential importance of peer-to-peer learning, as the young people both learn and co-create new understandings around trees within their discussions with one another. Secondly, such activities also offer potential to supplement and even overwrite previous sources of information - such as through school in the case of Melany – and highlight the way that younger people are open to learning more about the present and future of ToWPUR. Thirdly, the extracts of Jason and Erik highlight the importance of giving voices to young people, and how they relish this opportunity to articulate and express their perspectives and opinions on these issues.

Conclusions and recommendations

Through participatory workshops with 48 young people across three sites in England, this research has explored experiences and socio-cultural values around ToWPUR. While young people initially did not make explicit distinctions between ToWPUR and other wooded areas, the workshops revealed their positive attitudes towards trees in general and strong value orientations regarding their relationships with local ToWPUR and wooded landscapes. These discussions highlighted how young people care for and experience trees and woods in their local environment, including ToWPUR. Young people's sociocultural values were born out of embodied and multi-sensory engagements with trees – with play and the observation of seasonal changes important to such engagements. Across the sites, there was evidence of regional variation in this engagement, relating both to the extent of tree cover and place-specific cultural practices and traditions associated with trees. Trees, the findings suggest, are significant in both their direct and indirect impact in young people's lives - at the individual as well as more collective levels. We revealed how trees are important for creating a sense of place for young people – as young people report their role in play and recreation as well as potential places of retreat and restorative value. Moreover, trees were heralded for their crucial importance for the environmental through their life-sustaining properties and for facilitating animal habitats and biodiversity.

The research has found that family, friends, and school are particularly important in (re)shaping values. Families and friends are important as part of the experiential engagement with trees, with of socialisation towards the care and preservation of trees. School similarly offered formative exposure to, and embodied engagements with, trees and, as the young people progress through school, developed and encouraged expressed values around the environmental importance of trees. Such value changes were accompanied by changes to levels of independence and style of play, which saw a transition (with some gendered differences) from trees being highly valued for playing on (and with), toward trees as associated with socialising and a place of retreat. Whilst the effect of media influence was diffuse, and less overt in relation to ToWPUR specifically, there was evidence of online engagement which contributed to understandings of trees and a desire to ensure they are preserved.

The young participants in this study were enthusiastic in mobilising these values, with themes of recreation and the environmental importance of trees particularly prominent in the discussion of tree siting and removal. The young people showed a strong sense of “right tree, right place”, and were keen for future developments involving ToWPUR to benefit the maximum number of people possible. Perhaps as expected, there was a strong refutation of tree removal, with danger to life being one of the few reasons where removal was permissible, and strong feeling that ToWPUR should not be removed to make way for the building of houses and roads. In each of these discussions local context was crucial, with decisions based on regionally-specific factors – such as the extent of current ToWPUR, other land uses in the area (particularly farming in the Peak District) and locally-specific customs associated with trees.

Our observations from this research offer several recommendations relation to ToWPUR:

- First, and foremost, ToWPUR matter to, and are positively valued by, young people, so their future preservation should be prioritised. In a general sense, ToWPUR help shape young people’s values and understandings of trees and nature, which are likely to remain important in later life. More immediately and practically, they provide experiential and multi-sensory value development and learning opportunities, and are recognised as providing wellbeing benefits as they get older. The report has seen that young people develop meaningful relationships with ToWPUR, and their perspectives should be harnessed in those ongoing initiatives which are seeking to develop criteria, and locate, what are considered to be ‘important trees’.[10]
- Second, targeted as well as more routine educational opportunities for young people to engage with trees should be encouraged and expanded through Local Education Authorities. The research suggests that schools are successful in promoting the value of trees (particularly their

[10] See, for example - https://www.forestresearch.gov.uk/research/understanding-the-public-value-of-trees-outside-woodlands-peri-urban-and-rural-towpur/ and https://treecouncil.org.uk/science-and-research/valuing-and-protecting-important-trees-outside-woodlands/#:~:text=The%20Tree%20Council%20and%20Forest,range%20of%20options%20to%20consider

environmental values and habitat potential) and that this is particularly effective in school and para-school activities which combine more traditional abstract knowledge-transfer with direct experiential engagements. From this, we would advocate more extensive educational programmes which offer this combination, whilst reinforcing the emerging recognition of the value of activities like Forest School for children and the need to make to this more widely available through local education authorities (Harris 2021; O'Brien and Murray 2006).

- Third, given that traditional media outlets do not extensively reach young people, we would advocate greater use of age-appropriate platforms, such as YouTube and wider social media as well as more virtual spaces such as in gaming or films, as a productive space for messaging about ToWPUR and trees more generally. This is appropriate to schools and educationalists as well as tree conservation organisations.
- Fourth, our experience with young people in these three locations suggests that more effort should be made to include their voices in planning and management decisions relating to ToWPUR. Young people are often passionate, knowledgeable and articulate about these issues as they relate to their local contexts – not only expressing clearly articulated viewpoints, but holding local knowledge and illustrating that their voices should be heard alongside adults. Echoing the academic literature recognising the value of citizen advisory committees (Lynn and Busenberg 1995) and the citizen jury (Fish et al. 2014), as well the specific interest in citizen science for understanding issues such as tree health,[11] we would recommend the formation of a Young Persons' Citizens Advisory Committee. Developed collaboratively between policy and practitioner groups, such a committee could offer opportunity for young peoples' peer-to-peer learning, sharing of young people's views and perspectives, and amplify the voices of young people, allowing them to be ambassadors and advocates for the preservation of ToWPUR.

[11] See https://www.forestresearch.gov.uk/tools-and-resources/fthr/uk-tree-health-citizen-science-network/

- Fifth, we would advocate future research to expand further on our observations here – particularly seeking to look at regional variations and eliciting younger people's perspectives on specific, real world, planning and policy developments which impact ToWPUR. Future engagement would benefit from adopting similar participatory and creative approaches, as values and understandings of ToWPUR are often embedded within broader narratives, memories and everyday practices. Academic researchers and Taking time to carefully uncover and explore these layered meanings proves vital for meaningful engagement.

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