Outdoor Technologies: ancient and modern

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For the purposes of this paper, I understand a technology to be a material tool with which people enhance or manipulate their environment and their relationship with their environment. This includes tools, clothes, fire, shelters, containers, boats, jewellery and weapons, examples of some of humans' earliest technologies. To stimulate my thinking, I watched people on a beach to see what technologies they used. They included a ball, a fishing rod and a camera; tools for play, sport and documentation respectively. Just these three objects make it clear how diverse our technologies are and to what diverse ends they are put.

The technologies people use to interact with nature can be very creative and sophisticated. For example, the artificial structures in the gardens by the bay of Singapore (Figure 1) that collect light for energy and rain for watering are shaped like trees and covered in climbers and epiphytes so that they have become an urban structure bringing nature into the city at the same time as reducing the impact of people on nature through sustainable technology. I'll return to the technologies of urban planners and their potential for 'bringing nature to people' again.

Figure 1: The artificial trees of Singapore

Manufacturing and applying technologies.

It is important to note how apparently simple technologies, such as a canoe paddle, are also creative and sophisticated, both in their manufacture and their application. The ability to work with our hands to make tools from wood was the central pedagogy of the Sloyd movement from Sweden (Noe, no date). The practice was embedded in the school curriculum and was considered to have a significant impact on brain development through the interaction of the body with the tool and the materials. Students of mine recently explored the Educational Sloyd movement challenging themselves to make canoe paddles. The process of manufacture of a technology is as potentially valuable pedagogically as the implementation of the technology itself.

Applying a tool such as a canoe paddle, developing the skill and, through its use, an intimate, embodied and visceral understanding of water is also highly valued by Outdoor Educators. However, it is probably what the application of the tool allows as it is used to create a journey and the meaning that is given to the experience by the paddlers and the society in which they live that is often given the highest educational value.

A diversity of outdoor technologies.

When the EOE Slovenia delegates were asked what their favourite outdoor technologies were, it produced this word cloud (Figure 2). As might be expected, delegates identified a vast range of technologies used for diverse purposes in a field as culturally varied and as rich in activities as the outdoors. It also highlights the degree to which outdoor life is actually engaged with technologies, albeit of a certain kind, when the field often claims to be a means of escaping from the modern, technological life. More appropriately, the word cloud suggests that the claim might be that the field values most highly traditional technologies that rely on our embodied energy for their application, perhaps enhanced, in many cases, by modern materials. The only items in figure 1 that have an alternative power source are a torch, a lantern that would need a candle and a mobile phone.

Figure 2: The favourite outdoor technologies of delegates at EOESlovenia18.

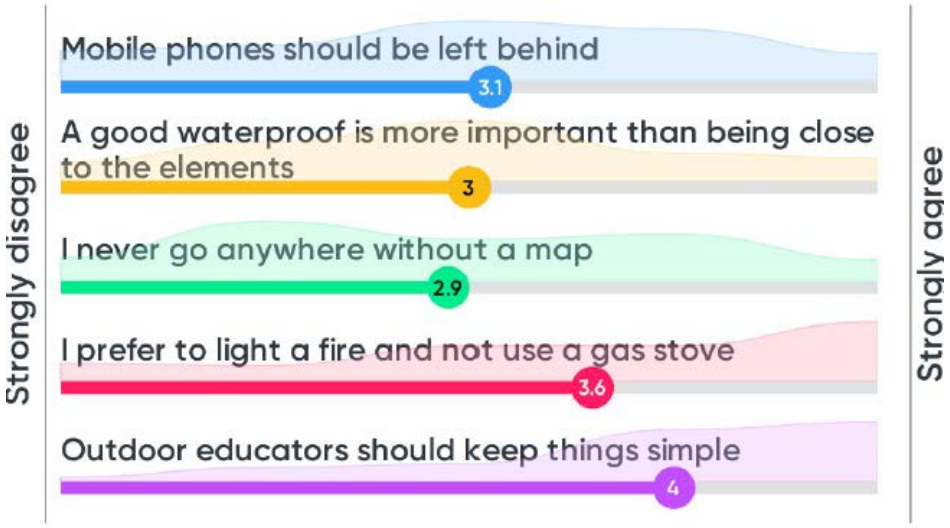
A yacht, my own favourite outdoor technology, and like a backpack, skis or a canoe, provides the opportunity to broaden horizons both literally, in the sense of where I can go, and metaphorically in what I can do and how I perceive myself, my identity or occupation as someone who can do this and go there. Another function of outdoor technologies is less well represented in the word cloud. A climbing rope or a life boat, both valuable technologies for some outdoor people, provide the security to protect, save or extend lives, literally as well as metaphorically, our 'safety ropes'.

The technologies of huts, tents and boats provide outdoor people with a home in nature, often a mobile home that allows people to make journeys or to live for extended periods in hostile or remote settings. Other technologies support outdoor living, cooking, sleeping, navigating and so on. The technologies or the many outdoor activities allow participants to explore the world they are in by encouraging travel in unfamiliar settings and employing complex skills, bikes, canoes and climbing ropes for example. Scientific equipment such as the simple geologist's hammer, allow people to see and understand the natural world and aesthetic equipment allows people to capture and share the places they go and the things they find. Some technologies promote self-discovery, exploring ourselves through experiences in the world, and some encourage people to explore human relations, shared tents or double canoes for example. Outdoor life often privileges the use of traditional technologies, an approach that is currently rising in popularity through movements such as Bushcraft and Forest Schools and their use of simple tools, shelters and fire.

The pedagogy of outdoor technologies

Outdoor technologies can be explored through a number of themes. As mentioned above, the outdoor life can be an escape from a technologically extravagant world to a simpler one. At the same time, certain technologies support the escape into simpler, more natural and machine free settings. The EOE delegates would seem to support this view (figure 3).

Figure 3: Attitudes to technologies in the outdoors EOESlovenia18.



Outdoor technologies challenging or reproducing societal norms.

Whether these approaches are understood as extending or restricting, extreme or minimalist, the they can all become counter-culture, challenging the norms of modern life and the values we hold towards the environment and each other. In these ways, even simple technologies can transform our sense of the world, our understanding of ourselves and of ourselves in that world. On the other hand, technology allows urban planners to bring the experiences of the outdoors to urban life with artificial ski slopes, climbing walls, challenge courses and white-water descents. 'Bringing nature to people' can be understood as an important step in providing access for all. However, it can also be a step away from enhancing the connection of people to nature rather than the thrills they can have while they are in it.

Technologies as symbols.

Often, outdoor technologies are transferred from everyday use into recreational life and from one culture to another. The kayak, developed by indigenous people in many parts of the world for their everyday lives, has crossed into cultures worldwide as an outdoor recreation and sport. Sometimes, the technologies that cross over retain some of the symbolism attached to their previous use, they continue to stand for something from their previous context. The kayak can be a symbol of the perceived simplicity of an indigenous way of life and its closeness to nature. Another example might be the tents, carts, uniforms and other technologies of the army in the Bohr War that came to represent the values of the Scout Movement under the leadership of Colonel Baden-Powell. Values, such as community living and self-reliance that Baden-Powell valued in the scouts he led in the war, are enabled and represented by the equipment brought into the service of the activities and way of life of Scouting.

Digital technologies.

So far, this paper has not touched on digital technologies. This has been intentional so as to remind delegates of the outdoor field's long engagement with a diversity of technologies and to explore some of our preferences and values around how they are employed in our work. The camera has long been used to document, express and share outdoor experiences with others on return to home. Telling the outdoor stories to ourselves and to others is an important part of the Outdoor Education pedagogy. Digital cameras make this more accessible and resilient micro-cameras take this even further. Mobile phones and the apps and networks they access allow for the sharing of experiences in real time or very soon after. In addition, these devises allow people to collect, share and analyse data, receive interpretive information about their locations and express their responses to experiences in new and creative ways. They allow a person who is away in the outdoors to remain connected socially in ways that were not previously possible. How these new possibilities are settling in to the wider ethic of outdoor technologies was be a central theme of this conference.

Social justice and outdoor technologies.

As hinted at above, politics is intimately tied up with the use of technologies in the outdoors. Adapted equipment can enable the participation of those otherwise excluded from outdoor experiences. On the other hand, the cost and skills needed to use a technology can be exclusive. The choice of technologies can put the power to direct an experience in the hands of young people or it can withhold it in the grip of the adult leader. The design of technologies can drive people apart or bring them together. They can provide a symbol of an emerging identity in a person who is acquiring confidence and self-expression or they can symbolise false pride and arrogance.

Environmental justice and outdoor technologies.

Nor is the outdoor field immune to environmental concerns caused by our modern consumption patterns. Travel and outdoor technologies are potentially implicated in the growing concern for over-consumption and the impacts this can have on pollution, biodiversity loss and climate change as every walk of life. Technologies can have significant carbon footprints or they can be sustainably sourced or even manufactured by participants in situ. They can be discarded after a single use or last a lifetime. They are a tool for good or ill and a powerful tool with which Outdoor Educators' can shape their pedagogies and express their values as they accompany their young participants into the world.

Integrating the ancient and the modern.

In exploring outdoor education projects that have considered carefully their use of both traditional and modern technologies, I came across the example of the Green School in Bali (Figure 4). The building, the furniture and the equipment are embedded in the curriculum and pedagogy of a school that aims to provide a whole education for sustainability by practicing what it preaches. In achieving this the school has used a mix of carefully considered old and new technologies, handmade and digital, involving both the making and the using of things to better understand a way to find a sustainable place in the world. Perhaps this is one case study that can help the Outdoor Education field continue its exploration of the appropriate use of technologies in our work.

Figure 4: The Green School, Bali

References

Noe, R. (no date). Sloyd Education Theory: making things with your hands makes you smarter. Available at: https://www.core77.com/posts/58789/Sloyd-Education-Theory-Making-Things-With-Your-Hands-Makes-You-Smarter

Useful links

Forest Schools Education: http://www.forestschoolsuk.co.uk

Bushcraft Education: http://www.bushcrafteducation.co.uk

Making a canoe paddle: http://www.songofthepaddle.co.uk/forum/showthread.php/366-The-Idiots-Guide-to-Paddle-Making

Singapore Gardens by the Bay: https://en.wikipedia.org/wiki/Gardens_by_the_Bay

The Green School, Bali: https://www.youtube.com/watch?v=biVwnTAxZXY