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GREENING SPORT FORUM

**Cross-Cultural Approaches to Sustainable
Development Goals and Greening Sport:**

Transnational Study of Open-air Activities,
Mountain Sports, and Traditional Games



**PROCEEDINGS OF GREENING SPORT FORUM
(ONSITE & ONLINE)**

September 8th, 2023



**HOKKAIDO
UNIVERSITY**



The Proceedings of the Greening Sport Forum 2023 (September 8th, 2023)

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This event is part of the research activities selected by the ICSSPE's Biennial Working Programme 2022/2023 and the ISHPES Scientific Programme Committee: Encouraging Scholarly Work and Research Activities.

Front image: Eco Village



Greening Sport Forum



September 8th, 2023

Yoichi Eco Village,
Hokkaido, Japan



Programme

Part I

- 10:00 Arrival at Eco Village, Yoichi, Hokkaido, Japan
- 10:00-10:45 Guidance, Self-Introduction, Village tour (Forest Garden etc.)
- 11:00-12:00 Fieldwork 1 - Lecturer: Dave Cudworth (Freelance Educational Researcher and Consultant, UK)
- 12:30-13:30 Lunch: Field cooking baked sweet potatoes
- 13:30-15:00 Fieldwork 2 - Lecturer: Dave Cudworth

Part II - Greening Sport International Forum (onsite & online)

Facilitator: Dale Whitfield (Hokkaido University)

- 15:50-16:00 Introduction: Keiko Ikeda (Hokkaido University)
- 16:00-16:15 Panel 1: Takahiro Inoue (Hokkaido University)
- 16:15-16:30 Panel 2: Tetsuya Aikoh (Hokkaido University)
- 16:30-16:45 Panel 3: Carol Osborne (University of Huddersfield, UK)
- 16:45-17:00 Panel 4: Pierre-Olaf Schut (University of Gustave Eiffel, France)
- 17:00-17:15 Panel 5: Tom Fabian (University of Dublin, Ireland)
- 17:15-17:30 Panel 6: Jeroen Derkinderen Lombeyda (Universidad Andina Simón Bolívar, Quito-Ecuador)
- 17:30-18:00 Free Discussion
- 18:00 Closing

Project Contributors

Dale Whitfield (Japan & United Kingdom): Facilitator

Assistant Professor at Hokkaido University, Japan

Ph.D. studies (2019-present), Hokkaido University: The accommodation of football in Japanese education

Research interests: Football; Japanese sport and identity; sports development environments

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Routledge ISHPES award in 2019 and Fellow of CESH since 2021.

Associate Editor of the *Sport History Review*

Research interests: outdoor activities and tourism; sport facilities and town planning; Olympic history

Keiko Ikeda (Japan): Introduction

Vice-President of ISHPES, Professor at Hokkaido University, Japan; Ph.D. (1995) *Pre-Victorian Sport: Pierce Egan's 'Sporting World'* (Tokyo: Fumaido Publishing, 1996). Awards: University President Award (2017), Hokkaido University; Distinguished Professor (2009) & University President Award (2009), Yamaguchi University

Visiting Fellowships: De Montfort University, UK, (2010); University of Warwick, UK, (1997-1998)

Research interests: 19th century British and Japanese sport history; transnational history of sports

Takahiro Inoue (Japan)

EzoLin-K LLC., Researcher at Graduate School of Agriculture, Hokkaido University; Ph.D in Environmental Science

Research interests: Biogeochemistry (especially in carbon and nitrogen cycling in forest ecosystems)

Educational experience: programs that introduce ecosystem functions of forests to high school students and university students at Yoichi Ecovillage (2021-present) and at EzoLin-K LLC (2022-present)

Tetsuya Aikoh (Japan)

Professor, Research Faculty of Agriculture, Hokkaido University

Professor Aikoh is a member of the Research Faculty of Agriculture, Hokkaido University. His research interests focus on planning and management of protected areas for its natural or cultural values and urban open spaces, monitoring visitors in said areas and spaces, and co-designing management with local stakeholders.

Carol Osborne (United Kingdom)

Dr, Researcher Developer, Graduate School, University of Huddersfield, UK.

Educational Experience: Senior Lecturer History of Sport and Leisure, Programme Sport and Social Sciences, Carnegie School of Sport, Leeds Beckett University, Leeds, UK (2011-2019); Lecturer Sports Studies, School of Sport, University of Cumbria, Lancaster, UK (2005-11).

Academic Societies: British Society of Sports History (BSSH) Executive Committee 2007-2017 and first woman Chair 2011-2014. Dr Osborne is an advocate for sports heritage, she has been a Trustee for the Mountain Heritage Trust, and a Network Coordinator and Research Associate with Sporting Heritage CIC, UK.

Research interests: historical and contemporary issues in climbing and mountaineering; gender relations in sport, media representations of sport.

Tom Fabian (Canada & Ireland)

Lecturer in Sport Management, University College Dublin

Interested in the various articulations of traditional games in the modern world, Tom's work investigates cultural heritage, populist politics, ethnic identity, body culture, and ecological sensibilities. He is on the editorial boards of *Sport in History* and the *International Journal of Sport and Society*, and a member of the Sport Ecology Group, International Network of Sport Anthropology, and various sport history associations (NASSH, ISHPES, BSSH). Tom's forthcoming book is on traditional games as cultural heritage in the UNESCO framework.

Jeroen Derkinderen (Ecuador & Belgium)

2019-2024: PhD studies at the Universidad Andina Simon Bolivar, Quito-Ecuador.

Master's degree in history (2011, Vrije Universiteit Brussel)

Master's degree in political science (2012, VUB)

Research interests: mountaineering history; history of Ecuador; interconnected histories

Dave Cudworth (United Kingdom)

Dr, Freelance Educational Researcher and Consultant

Educational experience: De Montfort University, the UK (July 2014 - May 2022) Head of Education Division

Dr Cudworth has been an educator for over 24 years, both in primary schools and universities and passionate about educational social justice and alternative learning spaces. He is interested in outdoor learning and the use of Forest School as an alternative learning space and concerned in how such engagement in these 'alternative' learning spaces promote student mental health and wellbeing alongside enabling a re-connection with nature and the development of Education for Sustainability and pro-environmental sensibilities amongst learners and educators.

Junka Sakamoto (Japan)

Director, Hokkaido Eco-Village

Career history:

1991: Graduated from the Department of Agriculture, Faculty of Agriculture, Hokkaido University

1991-2004: Worked for the Sapporo City Environment Bureau (green planning, park design, etc.)

2004-2006: Part-time lecturer at Hokkaido Institute of Technology, Dairy Farming University and Sapporo

2006-2008: Took Ecovillage Design Education at Findhorn in Scotland. Studied postgraduate course at the University of Wales, UK. Engaged in Ecovillage & transition activities

2009: Started the Eco-Village Life Experience programs in Naganuma-cho, Hokkaido

2012: Established NPO Hokkaido Eco-Village Promotion Project (President)

2013: Moved to Yoichi and established the Yoichi Eco-College

§ INTRODUCTION

Keiko Ikeda,
Professor Dr, Faculty of Education,
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Dale Whitfield,
Assistant Professor, Institute for the
Advancement of Higher Education,
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**“Neo-luddite Riots are unavoidable?:
A perspective from a long-term
history of the relationship between
human beings and nature”**

ChatGPT advertises that users can “get instant answers, find creative inspirations, and learn something new. Use ChatGPT for free today”.¹ In Japan, the Education, Culture, Sports, Science Ministry and Technology is set to release the guidelines as early as July after hearing opinions from experts and making necessary revisions. The draft says it is important to ‘nurture abilities to thoughtfully use generative AI’ but recommends a ‘restrictive’ introduction, noting the potentially negative impact on student’s critical thinking skills and creativity, as well as risks of personal data leaks and copyright infringement.² The Oxford experts’ paper from The Department of Engineering Science, “The Future of Employment: How Susceptible are Jobs to Computerisation?”,³ had already made an impact upon people in the world by 2013:

First, drawing upon recent advances in Machine Learning (ml) and Mobile Robotics (mr), we develop a novel methodology to categorise occupations

¹ ChatGPT: <https://openai.com/chatgpt>

² “Education ministry guidelines to allow limited use of generative AI in classrooms”, *Japan Times* (June 22, 2023): <https://www.japantimes.co.jp/news/2023/06/22/national/school-ai-use/> (accessed June 28th, 2023)

³ Carl Benedikt Frey† and Michael A. Osborne, “The Future of Employment: How Susceptible are Jobs to Computerisation?”, *Working Paper, Martin School of Oxford, University of Oxford* (July September 17, 2013): <https://www.oxfordmartin.ox.ac.uk/downloads/academic/future-of-employment.pdf>

according to their susceptibility to computerisation. Second, we implement this methodology to estimate the probability of computerisation for 702 detailed occupations, and examine expected impacts of future computerisation on us labour market outcomes.⁴

As a result, the appendix provides a list of 70 occupations that are computerisable. The paper also mentions a history of technological revolutions and employment. Indeed, “the ‘Luddite’ riots between 1811 and 1816 were partly a manifestation of the fear of technological change among workers as Parliament revoked a 1551 law prohibiting the use of gig mills in the wool-finishing trade. The British government however took an increasingly stern view on groups attempting to halt technological progress and deployed 12,000 men against the rioters”.⁵ Reacting to this trend, a phrase, “Are the Neo-luddite Riots necessary?”, emerged. This question is surely linked to the argument two centuries ago.

William Cobbett, a radical essayist in the early nineteenth century, provided the idea of the necessity of getting close to their nature for the benefit of people’s great talents just a few years after the Luddite movement. In his *Journal of a Year’s Residence in the United States of America* (1819), he recommended his children enjoy outdoor activities such as hunting, feeling and touching things away from cities and town because “great talents are wanted to be employed in the hives of men, they are very rarely acquired in these hives: the surrounding objects are too numerous too near the eye, too frequently under it, and too artificial”.⁶ This must have implied the necessity of rural life to get close to their ‘nature’ for creating

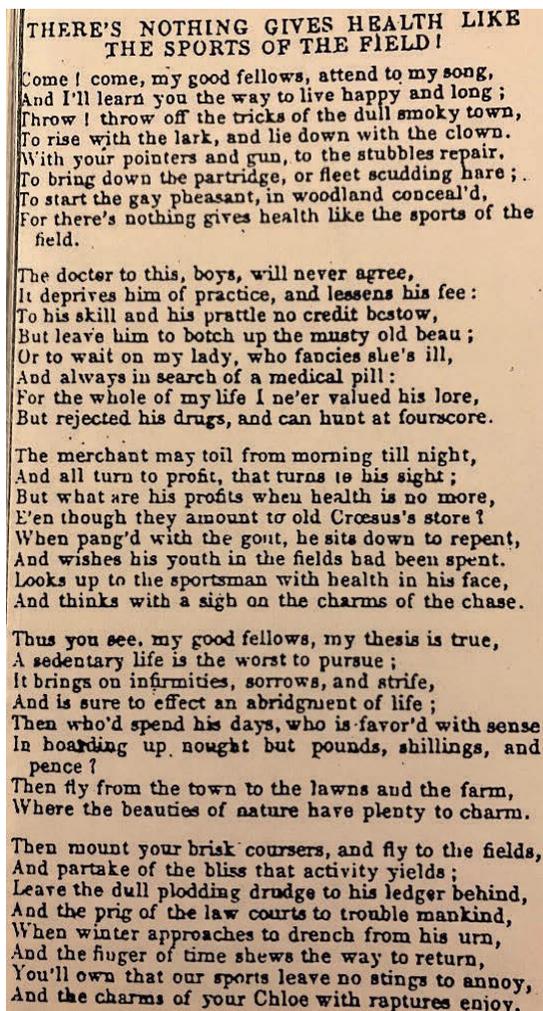
⁴ *Ibid.*, p.3.

⁵ *Ibid.*, p.7.

⁶ William Cobbett, *Journal of a Year’s Residence in the United States of America*, (originally published in 1819), Gloucester: Aland Sutton (1983), p. 203; Keiko Ikeda, “The Nature in Blood Sports in pre-Victorian Britain”, Jean-Michel Delaplace, Sylvain Villaret, William Chameyrat eds, *Sport and Nature in History*, Proceedings of the 7th ISHPES Congress, Montpellier, 26-31 August, 2001.

great talents. If Cobbett is correct, the present necessity is more crucial than two centuries ago in the recent drastic revolution of machine learning and mobile robotics.

Pierce Egan (1774-1849), another early sports journalist in the Regency period, in the day of Luddite Riots, composed a song entitled "There's nothing gives health like the sports of the field!" which was compiled later in Pierce Egan's *Book of Sports, and Mirror of life* (1832). This song criticized the new technology and urbanization, phrasing that "a sedentary life is the worst to pursue; it brings on infirmities, sorrow, and strife, and is sure to effect an abridgment of life".⁷



⁷ Pierce Egan, *Pierce Egan's Book of Sports, and Mirror of life*, London: T.T. & J. Tegg; Glasgow; R. Griffith & Co., 1832, p.375; Keiko Ikeda, *Pre-Victorian Sports: Pierce Egan's 'World of Sport'*, Tokyo: Fumaido, 1996, pp.204-5.

The merchant may toil from morning till night,
And all turn to profit, that turns to his sight;
But what are his profits when health is no more,
E'en though they amount to old Croesus's store?
When pang'd with the gout, he sits down to repent,
And wishes his youth in the fields had been spent.
Looks up to the sportsman with health in his face,
And thinks with a sigh on the charms of the chase.

Thus you see, my good fellows, my thesis is true,
A sedentary life is the worst to pursue;
It brings on infirmities, sorrows, and strife,
And is sure to effect an abridgment of life;

(Partly enlarged)

Figure 1. "There's nothing gives health like the sports of the field" in: Pierce Egan, *Pierce Egan's Book of Sports, and Mirror of life*, London: T.T. & J. Tegg; Glasgow; R. Griffith & Co., 1832, p.375.

The Luddite Riots, resistance movements against the new urban machinery life two centuries ago were subdued, though the new sedentary work did not eliminate all our bodily work. In the case of Neo-luddite Riots, is there any occupation with a human body left in the future?

It took at least a half-century to change the pre-modern outdoor activities to modern urban cultural styles, transforming and reorganizing traditional rural sports into modern rational competitive sports in parallel with the process of colonialization and capitalization, partly preserving traditional games and play in some parts of the areas or on some special occasions. However, the coming decade is unpredictable. It is probably not such a gradual transformation. 'Bodyless' will be the common standard. When we consider the war becomes virtual from the technological point of view, we recall Michael Hardt and Antonio Negri's view, 'bodyless' from the military point of view', in their *Multitude: War and Democracy in the Age of Empire* (2004):

Increasingly, U.S. leaders seem to believe that the vast superiority of its firepower, the sophistication of its technology, and the precision of its weapons allow the U.S. military to attack its enemies from a safe distance in a precise and definitive way, surgically removing them like so many cancerous tumors from the global social body, with minimal side effects.

The suicide bomber is the dark opposite, the gory doppelgänger of the safe bodyless soldier. Just when the body seemed to have disappeared from the battlefield with the no-soldiers-lost policy of the high-technology military strategy, it comes back in all its gruesome, tragic reality.⁸

The above passages imply that ‘bodyless’ brings more violence. In this sense, Pierce Egan’s prediction is far from an old cliché. Our cultural behaviour is linked to the subtitle of Egan’s book, ‘Mirror of Life,’ which connotes that our future society is mirrored by more “infirmities, sorrow, and strife” than two centuries ago. How should human beings survive on the earth with happiness?

“Formal education had its origins in the emergence of state-societies started more than 5000 years ago”. This is suggestive in thinking of bodyless IT-oriented society. According to a paper on the origin of formal education, the key stages of learning and development that humans progress through, from birth to mature adulthood, depend on development within a society that shapes all stages of human experience. Early education was a result of human social evolution and adaptation. The concept and term that Tooby and DeVore (1987) provided, ‘cognitive niche’, as an evolutionary model for human’s ‘zoological distinctiveness’, suggests that in every hunter-gatherer society, children had to learn an enormous amount, adults did not direct children’s learning, children acquired the skills of their culture by playing at culturally valued activities.⁹ Without any formal education, children in the hunter-gatherer society understood their crucial roles because it

⁸ Michael Hardt and Antonio Negri, *Multitude: war and democracy in the Age of Empire*, New York, 2004, pp.44-45; Keiko Ikeda, “The Body and Grass-roots Fascism during World War II: ‘the topos’ of the Emperor in a personal-body-mechanism in Japan”, *International Journal of Eastern Sports & Physical Education*, vol.4 no.1, 2006, 91-103.

⁹ T. Eskelson, “How and Why Formal Education Originated in the Emergence of Civilization”, *Journal of Education and Learning* Vol. 9, No. 2; 2020, 29-30).

was related to their safety, food and chief social behaviour as members of the society before modern formal education was established. In a sense, touching on nature helps to return to hunter-gatherer society’s self-education because it does not rely on direct instructional guidance in cultural and skills transmission; observation and imitation learning suffice. If AI robots can replace most formal education, what will be left to human education in the future? A virtual university, a virtual school, a virtual office and a virtual community lie in reality. Wednesday, for example, may only be a day to come to school in person because it gives a forest school class to learn important skills to remember that they used to be human beings who learned from observing nature.

‘Greening Sport’ embraces these urgent-need issues, including the ontological turn between nature and human beings and how and where we can pursue our human bodily culture in a harmless way to the earth. A dialectical point of view is the transformation from pre-modern to modern society and from modern to post-modern society. The consequences will be much worse and more drastic. There may be no room to produce the Neo-Luddite Riots. When we figure it out, there is a possibility that nothing is left with our body and environmental capacity...

The forum’s line-up includes ‘Climate change and the utility of forest’, ‘Carrying capacity and recreations with the forest ecology’, ‘How does forest school play a role’, ‘Environmental histories of mountain sports in Andes and Himalaya’, ‘the case studies of the South Pacific games and environmental stewardship’, and ‘A long-term historical point of view on coexistence between nature and human being’.

§ INVITED SPEAKER 1

Takahiro Inoue,
EzoLin-K LLC., Researcher at Grad. Sch. of
Agriculture; Postdoctoral Fellow, Hokkaido
University

“Climate change and forests as carbon sink”

Global carbon budget and terrestrial ecosystems as important carbon sink

The concentration of carbon dioxide (CO₂) in the atmosphere has been increasing due to emissions from human activities, and it is the major cause of global warming (IPCC, 2021). The atmospheric CO₂ level had been stable at around 280 ppm for hundreds of years before the Industrial Revolution. The CO₂ level has risen to over 400 ppm, and the global temperature has been increasing at a similar pace as the CO₂ (2 Degrees Institute). To tackle this problem, we first need to understand how carbon behaves on Earth. According to the data obtained between 2012 and 2021, average values of 9.6 GtC and 1.2 GtC were emitted yearly from fossil fuel burning and land-use change, mainly deforestation, respectively (Friedlingstein et al., 2022). However, the average annual increase in atmospheric CO₂ was only 5.2 GtC (Friedlingstein et al., 2022). This is due to the extra uptake of CO₂ by terrestrial and marine ecosystems. This extra uptake accounts for about half of the emissions by human activities. In terrestrial ecosystems, plants take CO₂ from the atmosphere to produce organic matter, such as carbohydrates. The produced organic matter is transferred to various parts of the plants, such as leaves, branches, and roots. So, plant biomass is an important carbon sink. At the same time, plants emit CO₂ through respiration. After a whole plant or part of a plant, such as leaves, branches, and roots, falls, soil animals and microbes decompose the dead organic matter and emit CO₂ through their respiration (soil respiration). Some dead organic matter, which is resistant to decomposition, remains on the ground and is incorporated into soil later.

Therefore, soil is another important

carbon sink in terrestrial ecosystems. The amount of carbon stored in the soil is similar to or larger than that in the vegetation in many terrestrial ecosystems (Visual Capitalist).

How does climate change affect vegetation and soil in terms of carbon cycling?

One might ask whether climate change affects terrestrial C cycling. Previous studies show photosynthesis by terrestrial vegetation has been increasing. Recently, the increased atmospheric CO₂ concentration is the main reason for this trend (Chen et al., 2022). This is called the CO₂ fertilization effect because CO₂ acts like a fertilizer.

C emission is also affected by climate change. Respiration from soil has been found to be increasing for the last 60 years (Bond-Lamberty & Thomson, 2010). The increase in soil respiration is considered the result of enhanced mineralization of organic matter in the soil due to the rising global temperature (Bond-Lamberty et al., 2018). Soil microbial activities are generally higher in warmer conditions.

Loss of tropical forests and its drivers

Forests are a dominant contributor to the terrestrial carbon sink. Unfortunately, forest area has been decreasing (FAO and UNEP, 2020). Among the world's forests, tropical forests have been experiencing significant deforestation, especially in South America and Southeast Asia (FAO, 2016). Deforestation causes not only the loss of photosynthesis and the subsequent carbon fixation to vegetation but also CO₂ emission through the burning or decomposition of logged trees. So, it has a significant impact on the global carbon cycle.

What are the drivers of tropical forest loss? The world's tropical forests are deforested to produce a variety of forestry and agricultural products. In Latin America, especially Brazil, the dominant driver of deforestation is the creation of pasture to raise cattle (Pendrill et al., 2019). In contrast, the largest driver was conversion to agricultural land that produces oilseeds such as oil palm and soybean in Asia-Pacific countries, such as Indonesia (Pendrill et al., 2019).

Although beef production is a major



driver of deforestation in Brazil, not all Brazilian beef is consumed locally. Brazil is the largest beef exporter in the world. The same applies to oil palm plantations. Palm oil is exported to the world because it is a beneficial oil used in various products such as chocolate, margarine, and shampoo. So, overseas demands are also responsible for the loss of tropical forests and associated CO₂ emissions. Consumers should pay more attention to the origin and contents of the products to stop deforestation and conserve the ability of forests to fix carbon.

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§ INVITED SPEAKER 2

*Tetsuya Aikoh,
Associate Professor, Dr, Research Faculty of
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“A Recreational Impacts and Carrying Capacity in Protected Areas”

There are various types of natural wonders in Japan. We have five World Natural Heritage and 34 National Parks. They attract visitors from all over the world. However, you can see the human-caused impacts in mountainous natural parks. Impacts on natural resources include soil erosion, vegetation loss on trails and campsites, disturbance of wildlife habitat, such as brown bears, water pollution, and so on (Hammit et al., 2015). Impacts on visitors' experience are crowding perception, dissatisfaction, loss of wilderness experience, and so on (Manning et al., 2017). It may have a negative impact on the local economy.

As people walk, they trample the vegetation, creating bare ground and paths. As the path becomes lower than the surrounding area, it collects water and erodes the soil. At Mt. Rishiri, the northernmost national park, the soil has eroded to a depth of 3 meters. The number of people who have walked on the path is one factor, and the fragile volcanic soil is another. And multi-lined trails are made by hikers. Initially, the hikers walk in the center of the trail. When the area is lowered, it collects water and erodes. After it rains or the snow melts, the trail becomes muddy, so hikers avoid the area, stepping on the surrounding vegetation and creating a new trail there. This repeated process creates multiple trails.

Carrying capacity is the concept that there is a limit on the number of visitors a natural recreation area can accept and tolerate at a given location (Wagar, 1964). Initially, this concept was used to manage grassland on ranches. If the speed of cattle eating exceeds the rate of grass production, the pasture will become bare ground. There are several aspects of carrying capacity, including environmental, social, and managerial (Manning, 2011). Since there is

more than one factor and the relationship is complex, the relationship is uneven, and in practice, it has yet to prove easy to determine the carrying capacity.

There are various techniques to limit use. One may increase the resilience of the site or increase the amount allowed. Limiting use in parks is considered a last measure because it restricts the freedom of the public and is labor-intensive and costly to manage. Charging fees and licensing are also debated from the standpoint of equity and other factors. Information provision and education to visitors are the primary measures.

Many hikers lined up on the trail at Mt. Fuji during the summer hiking season. People walk in the middle of the night to see the sunrise at dawn. Traditionally, praying the sunrise from the shrine at the summit is ordinal hiking style in Mt. Fuji. UNESCO asked the Japanese government to monitor recreational impacts and to reduce the number of hikers under the carrying capacity of Mt. Fuji. Therefore, hikers are encouraged to avoid crowded days and times. According to a questionnaire survey, about 30% of climbers have seen the information and YouTube movies, and less than 10% of hikers have changed their behavior. The issue is how to distribute information and promote behavioral change, but effective measures have yet to be found. Local stakeholders have proposed the introduction of a reservation system.

At the campsite Daisetsuzan National Park, during the 30 years since 1971, the amount of bare ground has increased, and the number of narrow paths like spider webs has increased around the bare ground (Aikoh, 2006). At the end of those paths, it had become a place to waste in the open because the campsite did not have toilets. Now, plastic toilet bags are encouraged for visitors to bring and use, and special booths have been set up, so the situation is improving. The local mountain club is committing to monitor the impact and maintain the booth. Additionally, an effort is currently taking place to repair the trails with the help of local stakeholders. Wooden trails installed to prevent erosion and trampling have also been ignored, deteriorated, and become dangerous due to the



administrator's inadequate budget. Therefore, a group of hikers are working to repair the trails. They carry large lumber, install palm mats to protect the soil and vegetation, and transport light materials as they hike up the mountain.

Monitoring the recreational impacts, establishing the management strategy, and collaborating among park authorities and local stakeholders are necessary to keep recreational use in natural areas in an appropriate manner without exceeding the carrying capacity.

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§ INVITED SPEAKER 3

*Carol Osborne,
Dr, Researcher Developer, Graduate School,
University of Huddersfield, UK*

**“Reflections on mountaineering /
climbing and the environment”**

For the purposes of a Greening Sport Forum (GSF), discussions around pursuits like mountaineering and rock climbing are an obvious fit, as are the activities of hillwalking and trekking. In the case of mountaineering, a practice typically identified with ascents made over a mixed terrain of rock, snow and ice, the greater appeal of some mountains over others invariably relates to height, challenge, or iconic status – such mountains require judicious management for conservation and, consequently, conservation of popular destinations assures continued tourist-mountaineer engagement which, in turn, sustains local economies (Sun and Watanabe, 2021). Although mountains provide their own meteorological protection, that is, when conditions are too severe for humans to risk ascent, damage sustained by overuse (e.g., erosion) can also inform decisions which restrict numbers permitted to climb or can close a mountain together, as discussed by Professor Aikoh through his detailed research on Mount Fuji, Japan’s highest peak which operates a limited climbing season (Greening Sport International Forum, 2023). The localised detrimental impact of mountaineering has also been well publicised through the ‘spoiling’ of Mount Everest due to accumulated tons of rubbish left behind by humans on expeditions over time. In 2022, the Mayor of Chamonix called for a deposit to be paid by those wanting to climb Mont Blanc (the tallest mountain in the Alps of Western Europe) in case of accidents due to dangerous conditions on the massifs (glacier melt) caused by the impact of climate change – this example adding weight to an already well-publicised ‘problem’ for the planet which extends well beyond the responsibilities of mountaineers (BBC News, 5th August 2022).

‘Mountaineering’ is often used

interchangeably with the term ‘climbing’, which can complicate the conversation in terms of where the focus is placed with regard to environmental impact, not least due to media attention on famous high peaks like those highlighted above. Beyond high peak mountaineering, ‘climbing’ is a generic concept which also captures a range of distinctive activities dependent on a wide variety of natural rock formations found around the world, which underpin different practitioner disciplines and styles, for example, bouldering, crag climbing, big wall climbing, coasteering. Travel to such sites can be local or long-distance, and rock is also susceptible to the pressure of repeated human use at popular locations. What climbers choose to climb and how serious they are about participation can influence their sense of ‘rights’ to access climbing playgrounds, rather than recognising that the aspiration to do so could reasonably become a negotiable human want, that is, if the welfare of the environment and/or nature more directly is given priority.

Of course, we cannot assume that climbers care about the kinds of conceptualisations and issues that academics do (or that they even accept climbing is a sport, see Howe, 2019); the priority of climbers I have met over time is to get out ‘on the hill or on the crag’ – little interferes with that intention and, from this perspective, climbers are no different to any dedicated player of sport in pursuing a passion. Equally, we cannot assume that because the sport someone chooses is outdoors, participants are susceptible to the environmental impacts caused by personal engagement with it. Any detachment from the collective environmental impact of the many thousands of climbers worldwide is hardly different from the personal choices others make when it comes to activities they want to pursue in daily life – the challenge is resolving the tension between such freedom of choice and environmental cost. Motivation to become a protector of the environment is therefore compromised because, in the case of climbing, an individual can threaten their freedom to choose where and how to climb by taking an environmentally protective stance.

To understand a practitioner’s reluctance

to relinquish their freedom to climb whenever and wherever they want, it is necessary to reflect on what it is about this particular embodied experience in/with the physical landscape that compels return again and again to repeat the process. We can be certain that engaging with the physical features of the outdoors (land, water, air) yields a range of sensations unique to each individual – during this year’s Hokkaido Summer Institute; students discussed the sense of fear which can be evoked when engaging with ‘Nature’ as a domain which is so much greater than ourselves, and one capable of yielding unpredictable conditions. The unpredictable conditions for climbers are integral to their experience, even in situations where risk is high and possibly life-threatening (Osborne, 2021). Knowing about the objective dangers in this pursuit guarantees that even repeated visits to the same rock faces (or mountains) are never the same. Thus, every encounter is unique. The frisson associated with being caught in a weather event (high winds, heavy rain, extreme heat) or being ‘gripped’ (freezing) on the rock when a technically challenging move is required to maintain ascent upwards produces distinctive bodily reactions – for example, uncontrollable leg shaking, goose bumps, sweats, shudders, and nausea – all temporary, all ultimately manageable, but critically all memorable as bodily sensations.

Otherwise, rock climbing in an outdoor arena without the distraction of spectators – whether on short crags or across several pitches to attain greater height – taps into the body’s abilities of proprioception, that is, the innate capacity to adapt a repertoire of movements in response to the objects and open spaces in front of it. This represents an incredible synergy between body and mind, which, in turn, because of the outdoor terrain, heightens sensory receptors in the skin through touch and the muscles and joints through a range of delicate, strong, and dynamic movements. So, climbing is an active choice to be ‘in’ or ‘with’ Nature as a means of experiencing an intensity of feeling that cannot be attained in everyday, man-made environments. Thus, the rising trend of choosing to climb on an artificial climbing wall

is an active choice not to engage with Nature or signals the existence of those who cannot access it (Kulczycki and Hinch, 2014). Either way, it is a choice to engage with a known vertical challenge and represents a determination to physically test oneself and instrumentally train the body through a predictable process of upward movement. It is a training that does not necessarily progress to making a choice to climb outdoors. As such, it can be understood as a more sustainable practice, primarily when a wall can be locally accessed.

Moreover, unlike natural rock-climbing locations, artificial walls are not susceptible to irreparable damage because they are replaceable. Nevertheless, the rising popularity of indoor walls signals climbing as a growth sport, as evidenced by its inclusion for the first time at the Tokyo Olympic Games 2020 / 2021 (Chen and Li, 2021). An unintended consequence of the appeal of this relatively new competitive iteration is that indoor practitioners could take the logical step of shifting their attention to the development of their climbing skills outdoors, thereby creating additional pressure on natural rock formations, especially in those areas identified with ‘classic’ climbs. Thus, innovation in sports practices, whether designed to entertain or promote human wellbeing, will invariably come with the challenge of environmental cost.

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HOKKAIDO
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Tetsuya, Aikoh 'Impacts and Carrying Capacity in Protected Areas', presentation at Yoichi Eco Village available at (241) Greening Sport International Forum (September 8, 2023) - YouTube

§ INVITED SPEAKER 4

*Pierre-Olaf Schut,
Professor Dr, Université Gustave Eiffel,
France*

“Outdoor sports and the environment: balancing accessibility and sustainability”

Outdoor sports are essentially based on organised physical activity in a natural environment. They are distinguished primarily by the natural environment in which they are practised and any equipment used. Many people who participate in these activities are motivated to rediscover or discover natural areas that are sometimes difficult or even dangerous to access. But nature in its wild state is part of the appeal of these sports. Supported by commercial organisations or associations, the question of developing these activities comes up against ambivalence: the more attractive the activity, the more the environment will have to be shaped for this use. There is a dual movement of development and flow management, which often involves altering the natural environment. As a result, there is a constant need to strike a balance between accessibility and sustainability (Bourdeau, Corneloup & Mao, 2002). At the same time, preserving natural resources poses a barrier to developing commercial sports services in our liberal society. The discussion will be based on various nature sports activities, using examples taken from the history of these activities and put into perspective with the current situation.

An idea of nature

Nature sports allow participants to discover a particular natural environment. The development of these sports is often based on perfecting techniques or equipment that make it possible to explore a specific natural environment. In these pioneering periods, there is an effort to adapt to nature. Then, as practices evolve, certain forms of practice can happen, leading to adjustments to nature to resemble idealised natural conditions. This process

can involve focusing on specific emblematic practice sites that have particularly favourable or attractive characteristics. But it can also lead to the complete artificialisation of the natural environment.

Let's take a few activities as examples to illustrate this gradual gradation. Mountaineering is dedicated to conquering the summits. Equipment has evolved to allow safe snow, ice and rock climbing with crampons, ice axes and ropes. The routes sometimes include more challenging obstacles. To facilitate the passage of their clients, the guides or sherpas install fixed equipment: ladders to cross crevasses or fixed ropes to facilitate progress in steep sections. These first light and temporary facilities were a first shift in which the sportsman no longer adapted to the environment but adapted to his activity.

One stage followed another, and skiing, initially practised on almost flat snowfields, moved up the slopes: this was the beginning of alpine skiing. The fir trees were cut down to make way for wide avenues and laid out to take advantage of optimal slopes and snow conditions. Snow groomers worked the snow so it always had the same quality - neither powdery nor icy - regardless of the weather conditions. The final step is taken when the activity no longer takes place in its natural environment. The development of artificial surf waves in basins, far from the oceans, shows another approach. The idea, culturally constructed by the surfer of the perfect wave, is created for the practice of the activity.

Behind these three briefly sketched examples are many others, and it is important not to think that nature sports enthusiasts have the same pure conception of nature. The development of nature began very early in the history of activities and continues today. It is not a continuous, homogeneous movement. It is more or less advanced depending on the activity and represents groups of practitioners who may be in the minority or the majority. Situations vary widely.

Accessibility and frequentation

Making nature sports sites accessible often

involves a safety phase combined with more or less extensive facilities such as fixed ropes for mountaineers or ski slope markers for skiers. These efforts make the activities accessible to as many people as possible. The promoters of these activities, whether federations or professional instructors, actively contribute to these efforts to share their passion and increase their activity.

However, their success puts a strain on the sustainability of their actions. While the number of people participating in these activities is increasing, the damage being done to the natural environment is also becoming more visible, whether simply due to successive trampling or too much presence in an area that is the natural habitat of wild species. Obviously, the phenomenon is much more marked when major developments such as roads and buildings exist.

Some activities, such as mountain biking or hiking, can rely on an almost unlimited number of practice sites, but others focus on specific spots. The most attractive of these suffer from over-frequentation (Apollo, 2017), as in the case of Mont Blanc, which is the highest peak in the Alps for European mountaineers. In such cases, strategies to disperse climbers are unsuccessful, and it is not uncommon to see a preference for concentration strategies, which are also more relevant from an economic point of view. However, these strategies mean that biodiversity is lost and sacrificed for leisure activities to preserve biodiversity elsewhere.

Under these conditions, the development of artificial practice sites, often on the outskirts of large urban centres, can be an environmentally friendly solution insofar as it avoids over-frequentation of the natural environment and reduces mobility.

Climbing, which is highly developed on artificial structures (Van Bottenburg & Salome, 2010), demonstrates the limits of this theory. The public on cliffs differs from that in climbing gyms, and only a small proportion use both environments. In reality, artificial structures attract a new crowd, and quantitatively, it is not always possible to contain them on nearby natural sites.

Conclusion

These few lines aim not to provide solutions but to review certain fundamental elements and contradictions. Activities that take place in a natural environment without any human intervention are, in reality, relatively rare. Nature sports enthusiasts have a fairly clear idea of their activity and are much more widespread. There is, therefore, a certain ambivalence among sportsmen and women who explore natural environments in order to immerse themselves in them, admire them and recharge their batteries. As such, many of them are committed to preserving these natural environments. However, it is possible to distinguish between the discourse of a radical ecologist, who may advocate a ban on all human activities in a nature reserve, and the activism of a sportsman or woman, who is focused on preserving their hobby. The latter does not rule out certain developments that could lead to overuse. In the end, the artificialisation and urbanisation of nature sports is both a heresy with regard to the basis of these activities and the most salutary way of preserving them.

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§ INVITED SPEAKER 5

*Tom Fabian,
Assistant Professor, Dr, Sport Management,
University College Dublin*

“Nature Games”

This is my second time participating in the Greening Sport Forum during the Hokkaido Summer Institute, albeit only virtually this time. Discussing the nexus between sport and climate is always interesting, especially as there are numerous iterations and definitions of each. On the one hand, “climate” encompasses climate change, sustainability, conservationism, nature epistemologies, environmentalism, ecology, etc. On the other hand, sports are only one aspect of physical culture, which also includes other leisure activities like outdoor recreation, nature sports, gymnastics, exercises, and traditional games. My work, in particular, focuses on traditional games and environmental stewardship, and my contribution to the forum was about the connection between the two within Oceanian Indigenous epistemologies.

Traditional games are often situated in counter distinction to modern sport forms and are poorly understood in Western society or scholarship. However, from these games, we have the opportunity to learn much about local play and physical culture. My research focuses on traditional Indigenous games in Oceania and how they can be used as a lens for the development of environmental stewardship or ecological sensibilities. The aims of my presentation were twofold: (1) To lay a foundation for future research in this area and (2) to situate traditional games within the broader sports ecology conversation. By deconstructing the embodied nature of traditional games and overviewing the histories of environmentalism in Oceania, a more grounded claim can be made for the relevance of traditional games within sports and leisure studies scholarship, including sports history, sports sociology, sports anthropology, and sports ecology. The

nature games of Oceania yield diverse insights into Indigenous epistemologies, ecological sensibilities, and how outdoor play can be understood as a form of climate action.

The twin existential crises of climate change and the COVID-19 pandemic have spurred a recent back-to-nature movement. Many have flocked to the “great outdoors,” relocating to rural environs, taking up gardening or hiking, and putting a greater emphasis on “green living.” The contemporary back-to-nature ethos is less about climate mitigation and more about nature awareness, which is the first step to developing a generation that will take care of the environment instead of exploiting it. Developing environmental stewardship is a societal shift that is crucial to climate action.

However, one aspect of “green living” that is not often discussed is the importance of playing in nature. In many ways, playing traditional games can lead to such environmental stewardship. Traditional games are the countertypes of modern sport forms. They are local, cultural, marginal games played worldwide, often as children’s games, in rural settings, and linked to ethnic identity creation. They are also often considered nature games, as they are most often played outdoors, in natural settings, and use natural materials for equipment. Examples of traditional games include Indigenous games, antiquated ball games or races, boat games, or martial arts, to name a few.

Traditional games occur in greenspaces and blue spaces and shed light on the importance of place and space in physical practices. Participating in such games creates what Gregory Bateson referred to as a “play frame” (1987) where bodily movement becomes intertwined with the natural environment. It is an embodied experience of being in nature. This experience is shared across geographies, cultures, and generations. There are countless examples of the connections to nature in diverse traditional games: Animal games (e.g., Central Asian horse sports, falconry, or camel racing) foster deep human-animal relations; water games promote not only safety but understanding of currents, tides, and blue spaces; open-air games festivals

(e.g., Highland Games or Mongolian Naadam) sustain narratives of belonging to the land; and folk wrestling variants the world over (e.g., Swiss *Schwingeren*, French *gouren*, or Senegalese *laamb*) romanticize the glory of nature.

Indigenous land-based physical practices may provide compelling evidence for the interplay between nature and games. For instance, “physical and outdoor activities included in Sámi festivals help create Indigenous identities and cultural understanding, as well as develop climate and environmental awareness” (Skogvang, 2021). Another example is Māori playgrounds (*marā hupara*), which, according to Harko Brown, are designed with natural materials (e.g., stones and logs) to encourage nature-based physical literacies. By engaging with nature through game-play, we promote a perpetual balance between humans and nature.

Indoor courts, astroturf, and controlled environments that mimic the outdoors are commonplace in the world of modern sport. Traditional games are outdoor activities that can break this mold. They are “ideal activities for facilitating an acceptance that humans are part of the environment, promoting the environment over the task, sponsoring respect for the environment, and cultivating a deeper environmental identity” (Sharma-Brymer, Gray, & Brymer, 2017). Unfortunately, traditional games are often disregarded and overlooked in conversations about sports and the environment. Our back-to-nature zeitgeist, replete with local knowledge such as Japanese *shinrin-yoku* (forest bathing) or Norwegian *friluftsliv* (outdoor living), would not be complete without considering traditional games. Coupled with the forest school movement and positioned as a remedy to “nature-deficit disorder” (Louv 2005), engaging and studying traditional games could yield fruitful results for green policy advocates. Playing games in nature is a fun start to climate action.

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§ INVITED SPEAKER 6

Jeroen Derkinderen Lombeida,
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“Ecuadorean *Andinismo*: dialogues between the mountains and their *andinistas*, ca. 1964-1984”

Abstract

Ecuadorean mountaineering evolved in a dialogue between mountaineers and the surrounding mountains. In the Central and Northern Highlands, the snow-capped volcanoes’ forms, or geomorphology, shaped how the activity evolved from relatively horizontal to vertical spaces. On the other hand, local mountaineers intervened in these spaces, naming places with their practices and building mountain huts. This experience can help us understand how an outdoor activity shaped relationships between humans and non-humans.

From 1964 until 1984, the Ecuadorean Andes saw the construction of several mountain huts; these can be considered the most important interventions by mountaineers, local populations, and authorities. During the International Greening Sport Forum 2023, I addressed one historic relationship. How did the mountaineers affect the Ecuadorean Andes? And the other way around, how did the mountains shape Ecuadorean mountaineering?¹ To study these questions, I find it necessary to understand these relationships as a dialogue in which mountains play an essential role and can be understood as actants. This form of non-human agency also helps us to understand how the terrain shaped Ecuadorean mountaineering.

The space where *andinismo*, as local mountaineers called the activity, developed is now known as the Northern and Central

¹ These questions were posed in: Tait Keller, *Apostles of the Alps: Mountaineering and Nation Building in Germany and Austria, 1860-1939*. University of North Carolina Press, 2016.

Highlands; this region contains most of the country’s snow-capped volcanoes. *Andinismo* was, in this period, mainly an activity practised by urban, middle and upper-class and blanco-mestizo 2 men; access to women and socio-ethnic minorities was heavily restricted. This social group documented their activities in club archives, mountaineering magazines and newspaper articles. Some mountaineers still hold small private collections spread out over this region. The most well-known mountains and volcanoes are Chimborazo (ca. 6,265 m) and Cotopaxi (5,897 m) because of their aesthetic qualities and the interest those mountains drew from travellers and scientists such as Alexander von Humboldt and Edward Whymper. Less known are the more vertical peaks of El Altar (5,319 m) and Los Ilinizas (5,263 m), which offer more technical mountaineering challenges.

Most historiographies have seen the development of mountaineering as a part of a process of domestication of nature.² Recent studies have tried to leave these anthropocentric approaches and attempted to capture the complex relationships between humans and non-humans in various ways. The Alps and the Andes offer divergent experiences; thus, it is crucial to understand these differences to realize the evolution of mountaineering history in diverse places. The Alps were in some way domesticated through the construction of cable cars, roads, avalanche retaining walls and numerous mountain huts throughout the range. Due to latitude, climatological phenomena, differences in altitude and geographical characteristics, the Ecuadorean Andes are radically different from the Alps. This also leads to different and smaller interventions in these mountainous spaces.

Ecuadorean *andinismo* developed in a specific territory, where the terrain, the approaches, the people and local mythology

² See: Doris Walter. *La domestication de la nature dans les Andes péruviennes*. Paris: L’Harmattan, 2003.

Also important for the wider region: Mark Carey, “Mountaineers and Engineers: The Politics of International Science, Recreation, and Environmental Change in Twentieth-Century Peru”. *Hispanic American Historical Review*, 92 (1, 2012): 107-141.

shaped the activity. Also crucial to consider are the topologies, or natural shapes, of the region and the mountains. Most of Ecuador's volcanoes require glacier travel, but not necessarily climbing – that is, the use of arms and legs. In that sense, most snow-capped volcanoes were relatively horizontal. In this way, mountaineers could see possible lines to climb these mountains, avoiding obstacles such as crevasses and seracs. From the 1960s onwards, Ecuadorean mountaineering became gradually more technical, and *andinistas* started to look at more vertical mountains such as El Altar. The way in which the geomorphology of the mountains shaped the development of local mountaineering can open up the discussion of whether we can see these mountains as actants. The geomorphology of mountains in the Central and Northern Highlands defined the activity and was crucial in this social and historic process where mountaineering could only develop according to local conditions.

This translated into local learning circuits. As the main cities in this region were close to different mountains, *andinistas* from Quito, Ambato and Riobamba visited different places to learn the craft of mountaineering. Usually, these were firstly the “easy” 4,000 metre-peaks around those cities, and the difficulty could gradually increase. As *andinistas* sought more difficult terrains, according to the logic of reward structures, where new and novel ascents were added to these learning circuits.³ Each generation of *andinistas* needed to successfully climb the previous generation's challenging ascents. In that way, mountains attracted *andinistas* in different time periods. Chimborazo was a mountaineer's most important ascent until the 1950s; from 1963, El Altar became a symbolic graduation for expert *andinistas*. As such, we can see these changing gazes as a part of social constructions of desire. The most difficult ascents were not only a place but also a space and an imaginary construction.

Several generations of mountaineers

³ See for reward structures: Hamilton, Lawrence C. “Modern American Rock Climbing: Some Aspects of Social Change”, *The Pacific Sociological Review*, Vol. 22, No. 3 (Jul., 1979): 285-308.

appropriated these mountainous spaces for themselves. In the 1950s, this was through patriotic discourse; by the 1960s, this changed into a more religious and spiritual narrative. Mountaineers adopted various practices, such as praying, singing the national anthem and carrying flags to mountain tops. As mountaineers saw the need to make these spaces accessible, the idea of constructing mountain huts started circulating in the 1950s. The construction of six mountain huts on the most visited volcanoes drastically changed conditions for mountaineers and tourists alike.⁴ From the 1960s onwards, *andinistas* placed religious symbols on mountain tops and important places, such as crucifixes and images of the Virgin Mary. In this same period, most “normal” ascent routes were established, which made the establishment of paths and tracks more prevalent. At the same time, national and local authorities were concerned about establishing national parks, which included most of the snow-capped mountains within their borders.

As I tried to share in this brief space, *andinismo* is a prism through which to study the relationships between mountains and climbers (or the non-human and the human). Ecuador's Northern and Central Highlands can be seen as a historical space among a wide array of different Andean experiences. The study of the relationships between humans and non-humans can open up questions on specific forms of domestication of space, as the Andean experiences were different from the historic Alpine processes. It is worth mentioning that *andinismo* has grown so much in recent years that we can see substantial erosion due to over-use. The construction of a cable car on Rucu Pichincha (4,784 m) next to Quito has made frequent visits and has been detrimental.

⁴ The huts constructed were Chimborazo (1964), Ilinizas (1965), Carihuayrazo (1970), Cotopaxi (1971), Cayambe (1981), and a new hut on Chimborazo (1983). Not all, such as Carihuayrazo's and Chimborazo's huts, would withstand the test of time.

§ INVITED COMMENTATOR

*Dave Cudworth,
Dr, Freelance Educational Researcher and
Consultant, UK*

As an attendee of the second Greening Sport International Forum this year, it was a great pleasure to hear from speakers locally and globally again. Thanks to Takahiro, Tetsuya, Carol, Pierre-Olaf, Tom and Jeroen for their inspiring presentations. They shared their passion for environmental stewardship and our responsibilities towards respecting nature in relation to sport, tourism and our physical engagement with the outdoors.

A key theme for me that developed across the contributors was the need to think about real action for sustainability: how can we enjoy and play in nature and interact with it whilst ensuring we respect and understand our duty of care and relationship with it? After all, we are very much a part of nature, 'rather than apart from nature' (White & Cudworth, 2014, p. 208). For me, it's about shifting our relationship with nature by developing a pro-nature framework or worldview. With the Ecovillage in Yoichi embodying all aspects of sustainable living, the setting for this event this year perhaps epitomised this thinking: a very fitting venue.

With global temperatures increasing at worrying rates and the decline of biodiversity, the need to understand our relationship with the broader environment has become even more critically important. Furthermore, with humanity's increasing reliance on technology, including more recently the rise of AI (Guilherme, 2019), our social and cultural lives have been transformed, with many of us spending more time immersed in virtual and simulated environments (Brey, 2014) and less time in the natural environment. A comment shared by Junka Sakamoto, the founder of the ecovillage in Yoichi, perhaps substantiates this. She noted, when talking to us about the many visitors that come to experience the ecovillage and asking them if the day had inspired them to engage more with the outdoors, she remembers one participant saying to her that due to their

busy life living in a city, opportunities to engage with nature was challenging and that they could simply get a 'nature fix' from engaging with the virtual world. This perhaps highlights further for me the need for a pro-nature worldview. People need more opportunities to spend prolonged periods engaging with the outdoors, thus giving them time to develop more of an affinity with nature and appreciate nature everywhere it thrives, even in cities. It is suitable for our health, including our wellbeing, our connections with others, both human and non-human, and nature itself.

It is clear to me that as our urbanised lives become even more reliant and dictated by technology and the artificial world, real action for sustainability and our connection with nature has become even more pressing. This need for a return to nature and the embodiment of nature was a strong message from all contributors during the forum. And, for me, education is the best way to promote and realise this. Education can support the development of our knowledge and understanding of how to realise how we can support action to shape a more sustainable way of life. However, just like the opportunities provided by the ecovillage, where participants physically experience sustainable living, hands-on, over a prolonged period, the key is to offer more experiential opportunities that take teaching and learning outside. One such vehicle in which this can be realised is Forest School (FSA, 2016), an educational approach that has grown in popularity globally and something that I have been involved in now for over seven years, both as a facilitator and researcher.

So, what is Forest School? Briefly, Forest School as a concept originated in Denmark in the 1950s, where it has become an integral part of educational practice and remains firmly embedded in their curriculum today. It has been increasing in popularity globally, albeit particularly in many early-year settings but more recently with older children and even adults. A fundamental ethos of Forest School is to nurture and develop children's natural curiosity to explore the natural environment and develop relationships with others in that

environment (Knight, 2016). Learners gain an understanding of themselves and others, including their peers, practitioners, and the non-human animals and flora around them, and in the long term, they begin to build a connection with the natural environment (Cudworth, 2020). Key skills such as problem-solving, critical thinking and creativity are very much a part of the approach. Furthermore, as Learners develop a sense of belonging to the outdoor space, they build an emotional affinity with nature, which affects their attitudes and behaviours towards each other and the natural environment (Kahn & Kellert, 2002). With the increased frequency of visits to these places, they develop further a secure attachment to the setting and with others in that setting (Beames and Ross, 2010), fostering caring attitudes towards the natural environment and habitats (Stern et al., 2008) and a commitment to participate in pro-environmental behaviours (Collado et al., 2013).

So, all educational institutions should seize more opportunities to embed their teaching and learning outdoors and immerse learners in nature as much as possible. We need to see a step-change in outdoor learning policy with the rollout of Forest Schools and outdoor education worldwide. Governments need to get further involved in supporting research that can develop a more pro-nature way of life, moving away from simply steaming ahead with the technological advancements of software, particularly concerning AI. Yes, technology has provided many benefits in our lives and continues to do so, and I am not criticising it per se. We need to slow down, particularly now, and ensure such advanced software is thoroughly researched, ethical, necessary and practical. My main concern is our detachment from nature as our lives become entrenched in artificial environments, lacking contact with others and the natural world. By shifting to a more pro-nature approach to life or worldview, the impact on our cultural and social lives can only be more mentally and physically enriched.

I want to thank Keiko for organising the opportunity for the contributors to share their

work and Dale for facilitating the discussion.

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GREENING SPORT FORUM

**Cross-Cultural Approaches to Sustainable
Development Goals and Greening Sport:**

Transnational Study of Open-air Activities,
Mountain Sports, and Traditional Games

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