Deep Mapping: Lough Boora Sculpture Park

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Lough Boora Sculpture Park has been developed on cutaway bogs. The work reveals how art can help to rebuild a relationship between people, place and non-human others. There is one more creative impulse, an agency that is at the heart of this matter, sphagnum – peat moss.

We have collections of moss in glass jars filled with water next to our studio window. Sphagnum grows noticeably taller and denser in this artificial environment. I cannot believe the strength of such a flimsy thing, it can rise above the water as it moves towards the light. On any sunny day numerous small bubbles come out from the translucent leaves. Tiny insects are swimming in and around the plants.

Bog lands are not wastelands. Raised bogs are as monumental and significant as redwood forests. Sphagnum is an extraordinary living thing. It is small, fragile but at the same time resilient, never harmful. Always close to water it is absorbent, spongy to walk on. Softness is the essence of the plant.

Art can be a response to small things. Use your sensibility to listen to the breath of the bog. Imagine the sight and sound as the spore capsules explode. Feel the energy as the air is filled with an infinity of spores, another cycle begins.

Reiko Goto Collins



Collins + Goto

en Manning Lough Boora Sculpture Park Reclaim Ret

Ireland

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Done by order of the Hon We the Commissioners

Appointed to Enquire into the Nature & Extent of the several

BOGS OF IRELAND.

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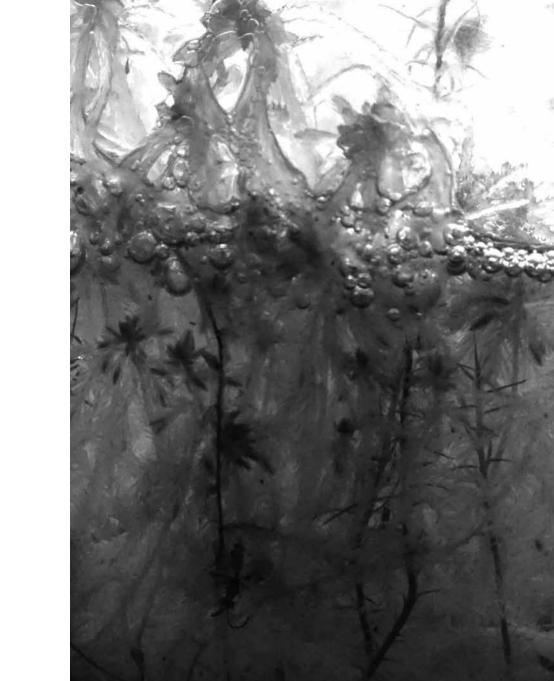
Deep Mapping Lough Boora Sculpture Park Reclaim | Rehabilitate | Restore | Regenerate

Tim Collins + Reiko Goto Collins

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Deep Mapping Lough Boora Sculpture Park



Commons and Lords Hansard, Official Report of debates in British Parliament WASTE LANDS (IRELAND)

HC Deb 28 April 1846 vol 85 cc1198-210

Mr. P. Scrope [constituency of Stroud] rose to move for leave to bring in a Bill for promoting the reclamation of Waste Lands in Ireland. He apologised for once more calling the attention of the House to a question connected with the relief of the Irish poor. He was in hopes that Her Majesty's Government would have saved him the necessity of doing so, by taking up this subject themselves. It was true, at the beginning of the Session several Bills were laid upon the Table of the House by the Rt Hon. Secretary for the Home Department for the purpose of effecting similar objects in Ireland; the House shortly after passed a Drainage Bill, a Fishery Bill, a Public Works Bill, but he looked in vain for a Waste Lands Bill. The subject of Waste Lands in Ireland had, more or less, occupied the attention of Parliament for a long series of years. In 1809 a Commission was appointed to inquire into and report upon the Wastes and Bogs of Ireland, and that Commission made several very valuable Reports. In 1819, in 1830, and again in 1835, Committees on the state of Ireland had also taken much evidence, and in their reports given very useful suggestions upon the same subject; but up to 1843 scarcely any of these recommendations had been adopted. In that year an Act was passed called the Drainage Act, which, from various difficulties thrown in the way, had never been largely carried into effect. He believed that if, some ten years ago, effectual measures had been taken to reclaim waste lands in Ireland, a source of employment would have been opened to the people, which would have prevented that country from being reduced to its present unfortunate condition; at all events the misery of the people would have been alleviated, and distress and crime would not have been so general as now. The Land Tenure Commission, over which Lord Devon presided, reported last year that in their opinion a proper system for reclaiming the waste lands in Ireland would not only prove, in a national sense, highly advantageous, by affording employment to the people, but would also be a highly profitable investment for those who would undertake it. The time, he thought, had come when it was no longer safe nor desirable that the reclamation of the waste lands should be left to a spirit of improvement on the part of the landlords, who had hitherto so completely neglected to take advantage of the opportunities at their command. Some intervention on the part of the Government was imperatively called for. Facts had proved that the voluntary efforts of the landlords alone could not be depended upon to affect any large development of this great national resource for the employment and support of the people. And if it were said that facilities should be afforded to them by the law to dispose of their waste lands more freely than they could do at present, the answer to this proposal would be, that with all the facilities that could be devised, or afforded to the landlords, they would still be too slow in their operation to meet the pressing demand of the population for fresh land to cultivate. And, moreover, the same evils would follow, which had always resulted from the practice of returning the land, without condition, after reclamation, to the landlord, to be by him let or sub-let as he might think fit. In fact, the very term "waste lands" was a disgrace to the social arrangements of such a country as Ireland, where thousands upon thousands of the population continually endured unexampled distress and destitution from want of employment. There were in Ireland no less than six million two hundred and ninety thousand acres of waste land, of which more than four million were capable of reclamation.



DEEP MAPPING LOUGH BOORA SCULPTURE PARK

Cover: BRO-04-BOG-08-P District No. 5. A map depicting a district of 44,501 acres of bog that extends from Banagher along the Shannon river to Tullamore. The northern boundary is the River Brosna, Cloghan and the Slieve Bloom Mountains the southern boundary. This was one of a suite of specialist maps produced under the auspices of The Commissioners for the Enquiry into Nature and Extent of the Bogs of Ireland and the Practicability of Draining and Cultivating Them. The Commission was established in 1810, all of the maps produced by 1812. The cartographic assessment of District No. 5 and subsequent drawings were by John Longfield and published in the 'Second Report to the Commissioners' in 1811.

Photo Credit: Leslie Brown, Map Collector, 2019. (Digitised version).

Figure 1: *Turbary Traces*. Leaving Raheenmore bog one of the six most significant raised bogs left in Offaly County, we were traveling south west toward Derrygrogan and Tullamore beyond when we discovered a huge cutaway bog complex bisected by that road. We followed the track to the north where we discovered this contemporary 'traditional yet mechanised turbary excavation' a common use, sustained on the edges of that industrial harvest site. The sphagnum and heathers that make up the mantle that 'raise' the bog in relationship to rainfall, are still visible here. The rest of it is a broad flat expanse of cutaway brown peat land with drains cut decades before, sphagnum removed then the energy resource harvested by more efficient methods and technologies.

Photo Credit: Collins + Goto Studio, 2019.

IRELAND 1. ASKEATON CONTEMPORARY ARTS 2. CLARA BOG 3. KILCORMAC 4. LEITRIM SCULPTURE CENTRE 5. LOUGH BOORA PARKLAND 6. MONGAN BOG 7. NORTH MAYO SCULPTURE TRAIL 8. POLLAGH 9. TULLAMORE THE RIVER **SHANNON** DUBLIN. COŬNTY ABERDE**É**N

GLASGOW

SCOTLAND

10. SCOTTISH SCULPTURE WORKSHOP

11. PEACOCK VISUAL ARTS / W OR M

Deep Mapping Lough Boora Sculpture ParkReclaim¹ | Rehabilitate² | Restore³ | Regenerate⁴

CHANGING VALUES:

The boglands are for local extraction of peat for home heating needs. The boglands are an open-grazing resource for small landholders. The boglands are a national wasteland, to be drained and cultivated. The boglands are the material basis for a national energy policy. The boglands are a defence against biodiversity and habitat loss. The boglands are essential to carbon sequestration and climate mitigation.

Tim Collins + Reiko Goto Collins

- Freed from end-use, a state of waste made useful again.
- 2 Formerly: soil and hydrological mitigation for agriculture and forestry. Presently: rewetting for carbon sequestration and biological recovery.
- 3 Repairing and healing the soil, hydrology, ecology and the habitat complex.
- Rejuvenation that achieves spontaneous and sustained natural expression.

Deep Mapping Lough Boora Sculpture Park Tim Collins + Reiko Goto

Edited by Gill Fremantle

First published in Ireland, 2020.

by Offaly County Council Áras an Chontae, Charleville Rd. Tullamore, County Offaly R35 F893

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This project was commissioned by Offaly County Council and Bord na Móna and funded by Offaly County Council, The Arts Council and Creative Ireland.













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FOREWORD

Throughout this publication, artists Collins + Goto present a proposition for those who believe Ireland has a creative role to play in climate change. Implicit in this is inclusive leadership.

This research was commissioned by Offaly County Council and Bord na Móna and funded by Offaly County Council, The Arts Council and Creative Ireland. It is essentially a conceptual review from an arts perspective, and this is to be welcomed. It brings the history of Lough Boora and its association with the arts sector into context alongside historical and industrial reports.

There is clearly a cloud hovering over Lough Boora. Yet this Book paves the way for new possibilities for engagement with Ireland's much loved peatlands through art, science, technologies, ecologies and by working with the farming and surrounding communities. Biodiversity is a concern and interest for us all, and here it is in abundance. Its authors set out to address the question as to whether the arts have a role in Lough Boora and, like all good researchers, leave us to say yes.

Lough Boora has a magnificent legacy of engaging with artists. These peatlands have a unique and fascinating if chequered history of relationships with people, peat, energy and art. Extolling how Ireland's Midlands have inspired generations of artists, poets, playwrights, architects, filmmakers and musicians. Writer Manchán Magan (2016)¹ reminds us that: "...each portrayal of the precious, transient complexity of this biosphere helps bring our attention to the wonderland of heather, hares and orchids that we so frequently ignore – and risk losing unless we demand that bold conservation

¹ Magan, M. (2016) How Irish Culture Got Sucked in by the Bog. Dublin: The Irish Times, August 16, 2019. Accessed November 6, 2019. https://www.irishtimes.com/culture/how-irish-culture-got-sucked-in-by-the-bog-1.2750541

steps be taken right away.". In ROSC² 1977, Joseph Beuys exhibited 'Irish Energy 1', raising what lies under our feet into critical social discourse. His ideas continue to influence and engage new generations of artists like Sean Lynch³ who has also informed this report. In 2000, peatland discussions were brought into the international arena when Tom de Paor built the first Irish pavilion 'N3' from 21 tons of peat for the Venice Biennale with the support of the Irish Government. The conceit that Venice was built to float in a lagoon of water, reeds and marshland, was not lost on de Paor's gift to the city. Last year I visited 'Blackfoot Pathways: Sculpture in the Wild', a park in Montana, USA, from where I proudly tweeted my experience in encountering the art of two Irish artists in this wooded area in Montana - Kevin O'Dwyer and Alan Counihan. Their art is particular to site and context, drawing on indigenous and local ways of living and working with land. The breadth and depth of engagement by artists across artforms in Lough Boora is what helps pose a dilemma and a challenge for those responsible for its future. Lough Boora already has a place internationally, locally, regionally.

What model, going forward? The authors usefully take us on an exploratory regional sweep from Askeaton near Limerick through Laois up to Leitrim and into Scotland to explore a diversity of lean and light touch models. Could there be a necklace of interconnectivity between these arts organisations? Their programmes ask us to be open to contemporary practice and new ways of working. I become curious as to what shape a 21st century Meitheal - a term traditionally associated with a coming together of people to help with the harvest and more recently with artists working together - would be like for a future Lough Boora. When Deirdre O'Mahony refers to the 'mind meitheal' in the context of Lough Boora, she reminds us about: 'our relational interdependence and mutual precarity' in the natural world. What might today's 'green generation do'? In deference to collective working,

the authors' note the rich discourse between Bord na Móna workers and artists, as they shared meals and workshop space. Their conversations and convergence of knowledge and skill have already demonstrated how Lough Boora has born a new type of energy that renews us all. I am reminded of the 'Meitheal' book that artist Eileen MacDonagh compiled for the Sculptors' Society of Ireland in 1988. This deserves a sequel.

But perhaps one answer to what model, might be close at hand. When artist Karen Power developed 'Sonic Pollinators (2017),⁴ this interdisciplinary art practice was undertaken with the support of Laois and Offaly local authorities, heritage and arts officers, and in particular, Creative Ireland. The traction and resonance of this art has filtered throughout a range of local interests and across the arts sector.

Climate change and the advent of COVID-19 has taught us to treasure the most vulnerable. Right now Lough Boora is fragile. The land and all the living things, the adjacent communities and local economy all require attention; do the arts have a role to play in this context? Because of and in spite of its history, the many ecologies that make up this part of Ireland are uniquely placed in all its vulnerability, to allow future generations of ecologists and artists to deliver new insights in their time. As Michael Bulfin notes, the life of art varies. And so does the art of life. Nothing is forever, but in this one world there are urgencies that artists are addressing using new or revived and innovative methods and technologies, working within the biosphere in science and with people. This sort of work requires supportive structures that keeps the door open to and through those same stakeholders that brought about Lough Boora in the first instance.

Returning to inclusive leadership, my own view is that Lough Boora would benefit from support by recognised champions in preparing a new Arts Strategy. The report presents a situation that is ripe for guidance from a high level, legally constituted steering group who could be skilfully supported by a local authority led interdisciplinary executive in making decisions for the future. Such a strategy would be informed by policy principle statements sought from relevant stakeholder organisations. The

² ROSC (1977) "Irish Energy 1" by Joseph Beuys, Exhibited in, Rosc (Poetry of Vision). Dublin: Municipal Gallery of Modern Art and National Museum. ROSC (poetry of vision in Irish) was a series of international art exhibitions that took place in various venues in Ireland between 1967 and 1988. The first Rosc exhibition took place in 1967 and was repeated approximately every four years until 1988.

³ See "Sean Lynch Retrieval Unit" a catalogue for an exhibition at Limerick City Gallery of Art in 2007. http://www.seanlynchinfo.com/documents/InsidePages-proof.pdf

⁴ See the documentation and listen to a sound file from Karen Power's project here. http://www.karenpower.ie/sonic_pollinators.html

DEEP MAPPING LOUGH BOORA SCULPTURE PARK

present report provides an absolutely valuable underpinning for the next stage where others such as Science Foundation Ireland, the Third Level sector, the Dutch Stichting Fund and all who are referenced in the report can be constructive contributors.

The Goto + Collins report is a timely, appreciative inquiry, into what energised the best of what's, in Lough Boora, and I have no doubt that this cloud has a silver lining.

Avanti!

Jenny Haughton, Artworking. May 2020.

ACKNOWLEDGEMENTS

This work would have been impossible without the guidance and support of: Sally O'Leary, Arts Officer; Amanda Pedlow, Heritage Officer; and Clare Dunne Arts Administrator, Offaly County Council; Deirdre O'Mahony, Artist Consultant to the Management Committee of the Sculpture Park at Lough Boora Discovery Park; Sinead O'Reilly, Head of Local Arts, Arts Council Ireland; and Tom Egan, Land Project Manager; and Ecologists Mark McCorry and Dave Fallon, Bord na Móna.

We also benefited from discussions with: Seamus Barron, Kilcormac Development Association; Michael Bulfin, artist; Alan Counihan, artist; Catherine Farrell, ecologist and author; Michael Horrigan, artist and curator; Hannah Imlach, artist; Sean Lynch, artist; Christine Mackey, artist; Dave McAllister, sculptor; Ruairí Ó Cuív, Public Arts Consultant; Kevin O'Dwyer, artist; Aoife O'Toole; Public Art Coordinator, Mayo County Council; Denise Reddy, Public Art Curator; Sean O'Reilly, Director of Leitrim Sculpture Centre; Sam Trotman, Director of Scottish Sculpture Centre; Nuno Sacramento, Director of Peacock and W OR M, Sylvia Sweeney Kilcormac Development Association; Paddy Woodworth, author and journalist.

We want to thank the following people for their interest in this effort: Frank Heslin, Sharon Kennedy, Offaly County Council. Stuart Conaty, Alex Copland, Anna-Marie Curry, Pat Sammon, Joe Ryan, Bord na Móna. And Sean Craven, Linda Kelly and Sylvia Sweeney of the Kilcormac Development Association.



Figure 2: The View from Lough Boora. Agricultural reclamation in the foreground, industrial peat harvest in the mid ground and the twin cooling towers of Ferbane Power Station in the background. Established in 1957 as one of the first significant peat fired power plants its infrastructure and labour force were made redundant in the 1990's. The buildings and twin cooling towers demolished on 12 December 1999. The form is reflected in artwork in the Sculpture park.

Photo Credit: Tom Egan, the Bord na Móna Archive.

The Arts Council / An Chomhairle Ealaion recognises the cultural potential of the Sculpture Park as a unique land art facility in Ireland, that can offer the opportunity for artists to work in cross-disciplinary contexts within the arts, but also trans-disciplinary, across fields such as ecology, biodiversity and environmental issues.

From the Deep Mapping Commission Brief.

Introduction

This study is a 'deep mapping' of the Lough Boora Sculpture Park and the contexts which shape its meaning. It intends to contribute to the goal of agreeing an **exceptional and sustainable artistic vision** to inform the future development of the **Land and Environmental Arts facility** at Lough Boora Discovery Park. It also intends to provide an initial historic, cultural and ecological context for artists and scientists trying to orient themselves as they consider a residency at Lough Boora in the future.

'Deep mapping' refers to an attempt to become conscious of a place and its multiple layers of experience, meaning and value. This requires experience, attention to images, reading and writing, a commitment to lived histories and current discourse, walking and talking with a wide mix of people wherever possible. It often demands that the 'deep mapping' team embrace a mix of ideas about the same place, at the same time. 'Deep mapping' is ideally a collective exercise.

The first generation of artists curated by Kevin O'Dwyer to make work in 2002 at Lough Boora reflected upon the large-scale excavation, material and transport infrastructure of the peat extraction operation. A social appreciation of the labour and scale of mechanisation that enabled the industrial harvest of peatland. Currently, the focus is upon a brown to green challenge; the art and science of **reclamation**, **rehabilitation**, **restoration**

and regeneration that needs to occur as Bord na Móna moves from resource extraction to renewable energy and new forms of land stewardship. The first generation of artists was able to benefit from the economic engine of peat production, the support of visionary land managers and an openminded workforce accustomed to large scale design and construction. The next generation needs to secure a relationship within the paradigm of ecosystem services and the global focus on carbon sequestration. The challenge is to find a way to make artwork that opens a space to imagine new social, ecological and economic relationships between the Boora lands and local communities. The question of how Bord na Móna and Offaly County Council facilitates the emergence of such a space is complex. What are the initial ideas, resources and infrastructure necessary for such an effort to emerge, how will it become a sustained cultural development? Is there a bridge that needs to be made between the first-generation art processes and practices or a new transition that should take place? The final section of this study will provide a brief overview of some of the models that inform these ideas.

As this study proceeded the Artist Placement Group's mantra, 'context is half the work' would come up in discussions. Initially, it was an intuitive response to an experiential understanding of nested meanings. However, on the second trip, Tom Egan provided the team with two publications: The Lough Boora Parklands: Pre-Feasibility Study (1994) and, The Future Use of Cutaway Bogs (1998). These provided a convincing case that the social, ecological and economic context was essential to the present meaning and future imaginary related to the Boora Complex. Both publications were the result of the first comprehensive conference on cutaway bog5 rehabilitation, initiated by the Kilcormac Development Association with support from Bord na Móna and the Offaly Leader II company, which took a landscape-scale approach to the future. The Pre-Feasibility Study imagined a complex of pathways and agricultural and ecological landforms that would function in a whole new way, whilst Future Use of Cutaway Bogs considered

the scientific, economic, planning and political issues from an expert perspective. These reports provided an essential blueprint of ideals, rigour and best practices to inform of this 'deep mapping' effort.

Historical context.

This section provides a brief historical narrative of the mid-20th century development of the energy economy and extraction systems that would radically reshape the form and function of the Boora bogs. The modern practical ideas, commercial value and industrial-scale tools developed to harvest the Midlands peatland landscape were followed by thirty years of changing ideas about socio-economic relationships to boglands which have been drained; drained and cutover; or completely cutaway. The team consider the research and investment in the agricultural promise of reclamation and the evolving understanding of these sites whilst efforts to facilitate 'natural' regeneration were made. Lough Boora and Turraun, the Boora complex, were the first large, raised, dome bogs in Ireland where the harvestable peat was cut away to the point where the valuable resource was exhausted. It is also where experiments in reclamation and rehabilitation began. The local history is as much about experimentation with a range of human ecological responses to the industrial harvest, as it is about the industry.

Sculpture | Parklands.

The Sculpture Park emerged at a time when aesthetic and community values began to outweigh challenges to practical reclamation of cutaway bog for utilitarian agriculture or silviculture. It was presented as a multi-use option that would enhance the economic and social life in near-by communities. Between 2002 and 2010 significant work was done on-site which was both recognised for the quality of the work and the innovative nature of the partnership. The Sculpture Park received prestigious awards, such as the Business2Arts award in 2003 and 2009, as well as the Best Art / Sculpture Award at the Local Government, City and Council Awards (LAMA) ceremony in 2007.

⁵ Cutaway meaning the area and remains left behind after the last of the commercially viable peat has been removed.

Freelance curator Kevin O'Dwyer, working with Bord na Móna and Lough Boora Parklands Group, funded by Offaly County Council and the Arts Council, sustained an ambitious programme of collaborative art, engineering and material upcycling which has had a lasting impact on both those directly involved in production, and park visitors.

However, by 2010 the partnership had begun to fray. In 2011 a study was commissioned to examine issues that had become untenable. What had appeared to be tension between art and tourism masked a deeper conflict that would take years to resolve. In 2012 the County Council Arts Plan outlined the need for a five-year plan of development. In 2014 a partnership assembled to sort out the long-term maintenance, ownership and responsibility for the work. A maintenance study was done, as a precursor to reinstating a curatorial programme, but concluded without agreement. In 2019 a new Memorandum of Agreement was established, leading to this current 'deep mapping' commission.

Ecology | Context.

Much of this 'deep mapping' exercise focuses on understanding the range of ideas shaping the response to what is essentially postextraction wasteland. Lough Boora is surrounded by the ring of 'Boora' bogs; a hydrological and ecological complex of boglands that was the focal point of Offaly county extraction. Today some have been rehabilitated as wetlands and lakes, whilst others are in the first stages of rewetting. In a slightly broader context, remnants of raised bog remain but the nearest and largest 'living' bog would be the Clara bog north of the Boora complex. The other living bogs near to the Park are Moyclare bog and Ferbane bog, which survived despite its proximity to a peat-fuelled power plant. Mongan Bog, situated along the 'pilgrims' path to Clonmacnoise, is one of the last surviving bogs along the Shannon River. The Raheenmore bog, east of Tullamore, is notable for its depth of more than fifteen meters in places. It was one of the first to be conserved in 1970. Various reports and conversations with ecologists made it clear there

is a lot yet to be known about the health and well-being of raised bogs, including the hydrology and restoration of ecosystem health and habitat. Biodiversity and carbon sequestration are the primary values underpinning the withdrawal of Bord na Móna from peat extraction. A secondary set of values is focused on ideas about ecosystems services; conservation and restoration of peatland support the ability of peatlands to regulate carbon dioxide and greenhouse gasses, allowing them to support wildlife in extensive habitat networks. The bogs are a focus of cultural outputs, such as archaeology, art, and poetry. They remain part of everyday life, as people cut peat to heat their homes. Yet the boglands also have a spiritual and religious significance, and an emergent recreational purpose driven, in part, by an appreciation of nature and its ability to self-heal. The essential artists' questions, therefore, shift from site-specificity and the need for robust material response, towards questions about the role of art in the evolving imaginary of the European-Irish response to cutover and cutaway bogland in the 21st Century.

Society | Environment.

Throughout this 'deep mapping' project, the team talked to artists and directors of arts institutions who are working through new ideas about nature and culture in the 21st century. In the final section of the report is an overview of these discussions using case studies and quotes from the most inspiring voices to reveal various models worth considering. The fundamental issues raised in this final section evolve out of the analysis of the three models that were discussed during the workshop. Focused on the form and function of an arts programme at Lough Boora. The questions discussed included: Should it become an outdoor sculpture museum curated and maintained to a high standard? An artist's residency that builds on the original Sculpture Park Seminar process? An integrated arts and ecology residency programme? Or is there something else worth thinking about? Is the social and political context of western Offaly county better served by live / work studios with an attendant residency programme or a workshop and market for local artists, artisans, craftsman and designers?

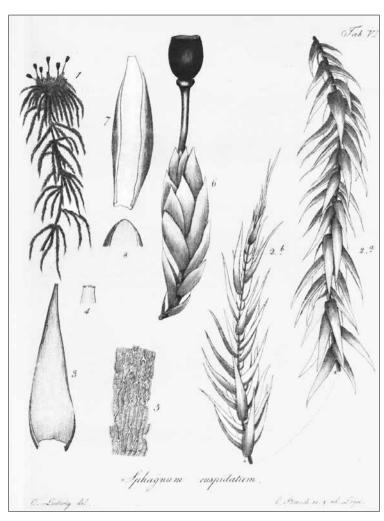


Figure 3: Sphagnum cuspidatum.

Image Credit: Missouri Botanical Gardens, CC 2.0.

Perhaps the most challenging question is how would Kilcormac, Ferbane and Tullamore benefit from cultural investment as the industrial economy comes to a halt? Once a forward-looking and engaged artists' brief is written then the matter of programming needs to be discussed, with the larger social and economic context in mind:

What staffing (curator or producer or programme director)?

What infrastructure and support systems need to be in place, or put in place to make it all work?

What kind of socio-political networking will enable the success of this community? (Are we talking about Lough Boora, the Villages or western Offaly County in terms of the elements of place and community?

How does an Arts (environmental arts or, arts and ecology) Centre in the Midlands have a national and international impact?

Does the new organisation need to work within one discipline or more than one discipline?

How would funders bridge the divide (enable the opportunity) between disciplines?



Figure 4: *Peat being carted to market*. The harvest and commercial sale of dried peat spans generations. The harvest and transport mechanisms have been a consistent area of technological development.

Photo Credit: Tom Egan, the Bord na Móna Archive.

Much of what is written in this first section explores conversations concerning materials provided by Tom Egan. The primary references for what follows will be the Lough Boora Parklands: Pre-Feasibility Study (1994) and, The Future Use of Cutaway Bogs (1998) a publication of the proceedings from the first comprehensive conference on cutaway bog rehabilitation. Both documents and their related meetings and events were coordinated and edited by Tom with the support of members of the 'Boora Group' which included: Seamus Barron, Tom Feighery, Eamon Fleming, Kevin Healy, Don O'Boyle, Aidan O'Hara and Paul Riordan.

Historic Context

Glaciers, Lakes and Boglands.

The last glacial period retains meaning in the western European archipelago that it doesn't have elsewhere. If we are going to talk about land and ecology in Ireland, the place to begin is the last period of glaciation. The bogs are, without doubt, one of the best in-situ records of an ecology developed since the last glacial period. There is some evidence of an ecosystem emerging in the wake of the late Anglian Glaciation which began over 500,000 years ago. However, this didn't survive the late Devensian (or Midlandian) Glaciation 110,000 years ago. It lasted approximately 100,000 years before finally retreating northwards about 10,000 years ago when interglaciation warming took hold. Eventually, rugged grasses and trees appeared. As native flora and fauna stabilised, the 'current' point of reference emerged. The native woodlands of Ireland: oak and elm forests, birch, rowan, whitebeam, holly, honeysuckle, and Scots pine in the uplands, began to appear. (Forest Service, 2010). It was recently confirmed, with reference to the National Museum of Ireland (Moriarity and Corless, 2016) that, following the recovery of nature, humanity emerged. The first record of human occupation at Lough Boora area is documented as a few thousand years after indications of human arrival in Ireland. (Ryan, 1998, p. 46).

Feehan, (1998 pp. 19-20) describes the history of land and water interaction at Lough Boora as the ice melted, and the last glacier retreated. In areas gouged by glacial movement, or where vast bits of the glacier had broken away, melt-water accumulated in lakes. It would take thousands of years or so for flora and fauna to begin to return to Ireland. These lakes, over a period of 10,000 years or so, filled with decaying plant materials. The natural process deposited layers of fen plants, old forests, sphagnum and heather, and then finally the layer of sphagnum which extended upwards above the water table and created the unique domed shape of a raised bog. These post-glacial lake beds that formed in the Irish Midlands were the 'resource' incubators of the raised bog peatlands which heated Irish homes for centuries. They became the focal point for resource extraction, which was the national energy strategy developed and managed by Bord na Móna in the 20th century.

The Bog of Allen: This immense bog, or rather series of bogs, stretches from the borders of the country of Dublin, across the country of Kildare, and the King's Country, as far as the Shannon and beyond. It has been computed that it formerly contained 1,000,000 of acres but by means of cultivation and drainage it is now diminished to 300,000 acres, and it is extremely probable that in a few years these immense and dreary tracts will be entirely reclaimed.

Coyne and Willis, 1841, Vol 1, chap v-10.

The emergence of industrial-scale harvest at Turraun.

Kieran Farrelly (who was born in 1835 on a small bog-bound farm in Turraun, Pollagh, Offaly County, Ireland) was acclaimed for his industrious nature. He utilised the Grand Canal and the new train lines (1854) to ship peat moss, stripped and dried on his lands, to Dublin for livestock bedding. He also sold sod peat for heating and brick clay for building. He devised horse-powered grinding and bailing machines and even ran some early experiments in bog reclamation for rapeseed production. He also installed the first diesel engine in the area to increase

production in response to demand. Unfortunately, his enterprise was eventually undermined by a flood and a breach in the nearby Grand Canal. After an attempt to reclaim losses from the Grand Canal, he was evicted and moved to Providence, Rhode Island in 1905 (Dooley, 1996, p. 22). Twenty years later the land was sold to Sir John Purser Griffith of Wales, the Chair of the British Fuel Research board in 1917, who had co-authored a report on peatlands in Ireland. Upon purchase, he summarily drained the bog and purchased peat excavation machinery from Germany. He established a peat-fuelled electrical generator to power his machines and sold excess electricity to nearby towns. This was the inspiration for the Irish Turf Development Board.

The cleanest fuel you can handle today are turf briquettes. A turf briquette is as neat and clean as a book, and as regular in shape and size. It is such a beautifully finished and polished job that if you didn't know it was intended for fuel, you'd make a guess at its being a nice black shiny brick.

The Irish Press, 1948.

The Turf Development Board Ltd. was established in 1933, to drain bogs and develop the turf industry. They purchased Turraun from Griffith in 1936, and over a decade or more slowly assembled all the sites in the Boora complex. Initial efforts included draining the water from whole bogs while developing new industrial tools to extract peat as well as refining Griffith's initial experiments with peat-fuelled energy production. Three years later World War II began and, with coal in short supply, peat filled the energy gap in Ireland. Residential camps would be set up throughout Offaly County to support an influx of workers from the west of Ireland. This workforce ensured the Irish citizens had heat in their homes. In 1946 Bord na Móna was established and Turraun bog was once again the first site to use technological advances. The cutting of turf into blocks evolved into the milling of peat; where a vast area of bogland is milled over and over again each year, creating an even greater industrial scale. Cut blocks had to be stacked and took a year to dry, whereas shaving a few centimetres at a time created a loose (crumb or powder form) peat which could be turned and quickly dried in situ.

The milled peat is ridged into small piles which are then transferred into large piles running parallel along the bog. Railways are laid alongside each pile, the pile loaded into trains. This is the 'Peco' method of working. Permanent railways run from a hundred peat bogs, each covering hundreds of acres, to power stations, briquette factories, moss peat factories and roadside tipplers.

Wikipedia: Bord na Móna, 2016.

A black gold rush.

To realise the job potential, and both the economic and national security value of the indigenous peat resource in 1946, Bord na Móna considered and assembled the workforce, tools and technologies needed to supply one million tons of sod peat each year. They also focused on promoting and developing a national network of peat fired electrical power plants which would provide the demand. Within three years a second development programme was underway with the shift to milled peat on 100,000-hectare plots. A significant network of new powerplants and another increase in production capacity was planned. In response to the oil crises of the mid-1970s through the 1980s, a third development programme was initiated in 1974.5 With the power plants in place the next effort was about increasing both supply and demand capacities. David Bellamy described a push to produce, "...six million tons of milled peat" that would be harvested right up to the end of the century. Bellamy described the projections for future production "...milled peat will peak at [sic] 1990, after which it will decline. Sod peat production will slowly decline and end in 2006 and exploitation of the available peat resources will be completed no later than 2030." Bellamy argued the home-based fuel supported an energy economy that had immense value given the lack of oil and gas resources in Ireland (Bellamy, 1986, p. 131). He also speculated about what could be done with the 100,000-hectares of land once peat production came to a close.

Developer/operator	Fuel	Commissioned	Decommissioned	
ESB	Allenwood, sod peat	1946		1974
ESB	Portarlington, sod peat	1950	1988	
BnM	Cahirciveen, sod peat	1957	2003	
ESB	Ferbane, milled peat	1957	2000	
ESB	Gweedore, sod peat	1957	1995	
BnM	Miltown Malbay, sod peat	1957	1990	
BnM	Screebe, sod peat	1957	1989	
ESB	Lanesborough, sod/milled pea	t 1958	2004	
ESB	Rhode, milled peat	1960	2003	
ESB	Bellacorick, milled peat	1962	2003	
ESB	Shannonbridge. milled peat	1964	2003	
BnM	Edenderry, milled peat	2000	2023 (pla	nned)
ESB	Lough Ree, milled peat	2004	shut then	
		2019	reopened	
ESB	West Offaly, milled peat	2004	2021 (pla	nned)

Boora: innovation, prosperity and pride.

The towns and villages that surround the Boora complex: Kilcormac, Ferbane, Ballycumber and Pollagh all prospered during the last half of the twentieth century. The expansion occurred slowly at first with the establishment of the Turf Development Board. It quickened with both the Bord na Móna era and the third expansion in the 1970s. Kilcormac doubled in size with the development of St Cormac's Park between 1951 and 1961. High-quality family accommodation built by Bord na Móna provided new-build homes for purchase, where rent could be applied to a future mortgage⁶. Ferbane would develop more incrementally, with investment by the Council and Bord na Móna. It grew to four times its size. Cloghan and Pollagh benefited to a lesser extent: the former due to its distance from the working bogs and the latter being constrained by limited size, as an island of housing in the middle of the Boora bog.

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⁵ In the first instance, the Organisation of Arab Petroleum Exporting Countries (OPEC) initiated an oil embargo against the western countries that supported Israel during the 1973 Yom Kippur war. The second one followed the 1979 Iranian revolution and continuing with the war between Iran and Iraq (1980-1988).

The Boora complex and its boglands have been the centre of peat industry research, innovation and development since the 1950s, with the focal point being an ever more effective harvest of the peat resource. Improvements in draining and initial surfacing of the bog; and milling, stacking, drying and transport of immense quantities of material were essential to support Ireland's national energy needs. Newtools and technologies were developed, maintained, customised and improved by the Boora work crews. "New machinery was introduced in the mid-eighties. The Flexi and new Offset Attachment Miller replaced the old Rigid Miller. Trailed Ridger and... the Trailer Brush Ridger have replaced the dedicated Double Ridger... The new rail layer, hydrostatic locomotives, wagon re-railers have greatly increased output, safety and driver comfort." All of this technology was built in the Boora workshop. (Dooley, 1997, p. 51). However, as predicted by Bellamy in the *Third Development Programme*, by the 1990s total production was winding down.

The agricultural promise of reclaimed bog.

Writing about 'the cutaway contract' John Feehan⁷ and Bernard Kaye described it as: "...a sort of Irish promised land, a new country, that was going to be won for agriculture and forestry once its harvest of peat had been won" (Feehan and Kaye, 1998, p. 7). At the heart of this 'promise' was a sense that creating agricultural spaces where the land was useful again was the essential goal of post-peat reclamation. In reality, this would often require deep soil ploughing to break up the barrier between remnant peat and subsoil to improve drainage and mineral content of the soil. Experiments at Benhanamuck⁸ in the 1970s tested, with poor results the potential to

grow spring wheat and barley, then winter wheat, oilseed rape, sugar beet and fodder beet. By the 1980s the land was converted to grasslands and livestock performance trials. In the end, Bord na Móna decided to move away from agricultural development. The rehabilitation approach to grassland development was extended to one particular land holding then sold to local farmers. The Boora complex was also the focal point of initial experiments in afforestation (where a forest is created in a space where trees do not exist). Plantation species such as lodgepole pine and sitka spruce struggled to thrive on peat, without the addition of costly, deep ploughing. There was emergent recognition of the potential of native alder, birch, sycamore and oak. (Egan, 1998 pp. 61-63). At the same time, it was becoming apparent that cutaway bog was not going to be the promised land for Irish agriculture. New experiments in the 1990s were still about rehabilitation but began to embrace some aspects of restoration ecology. Water was allowed to flow back into the formerly drained cutaway boglands creating conditions for a naturally regenerating wetland9 to occur.

There were also labour-intensive and expensive experiments in lake creation, where the last of the peat was removed and mounded, the area taken back to its essential soils and reflooded. This was almost a return to the glacial precondition of the bogs. Bord na Móna had begun a new round of discussion about what it meant '...to leave the cutaway lands as productive as possible for the surrounding local communities.' The idea of a *Lough Boora Parklands* began to emerge; a shift from agricultural utility to a new, pleasant and agreeable public amenity. The 'Boora Enterprise Group' coordinated by Tom Egan, with Seamus Barron, Tom Feighery, Eamon Fleming, Kevin Healy, Don O'Boyle, Aidan O'Hara and Paul Riordan published *the Lough Boora Parklands plan* in 1994. It integrated the areas of today's Discovery Park with all the land east of the Discovery Park, the newly created Finnamore's lake and an additional

John Feehan was a geologist at University College Dublin until he retired in 2012. He is co-author of 'Bogs of Ireland' (1996). He is recognised as an author and television broadcaster for a broad body of work that considers relationships between culture, and heritage and biodiversity in the Irish Landscape. He is a member of the Offaly Naturalists Field Club. (Bernard Kaye is still working at UC Dublin as a Technical Officer.)

⁸ Also known as Spain's Ireland, the land between Kilcormac and the Lough Boora offices.

⁹ It is important to note that a wetland is not a bogland. While this approach embraces the regenerative forces of nature, the outcome is rehabilitation rather than restoration.

link to Turraun wetlands by the Offaly Way¹⁰. It was an expansive and integrative vision of a new public amenity.

A New Irish Wilderness.

Feehan and Kaye plainly stated that the grand estate of cutaway bog in Ireland has potential in part because "...it is no good for anything else" (Feehan, Kaye, 1998, p. 8). They also identified the emergent interest in the experimental restoration of boglands which creates the conditions which allow the bogs to grow again over deep time. They caution that this isn't a recipe for bog repair but rather a consideration of remnant hydrological and substrate conditions; an analysis of the conditions necessary for nature to succeed at some level. Considering international bogland restoration, particularly the notably degraded 'last bog' site at Bargerveen in the Netherlands, they cautioned that high costs and systems that require constant management to evolve correctly are counterproductive. Site suitability is essential to a forward programme of restorative work.

Keeping with their propensity for imaginative national scale descriptions, they wrote about 'Creating the space for a new Irish Wilderness!' They concluded that perhaps 90% of the remaining 'non-productive' cutaway bog should be set aside to develop through generative, regenerative and successional forms. They argued that the land managers needed to step back and let the generative and regenerative forces find their way without human interference. They described new values of a vast networked public 'wilderness' where public access to land is a standard condition. They took the time to work through the objections but remained true to what they described as an unrequited desire in Ireland, a "…need for nature in the wild" (Feehan, Kaye, 1998, p. 8). The suggestion is that in the cutaway bog where utility is impossible, there is potential for the people of Ireland to renew their relationship to an aspect of the world which is truly natural. Looking back at this through a lens of twenty years of environmental

philosophy and ethics and the emergence of ideas of human engaged rewilding versus rewilding based on human expulsion from nature, Feehan and Kaye saw wilderness as nature that is free of overt human manipulation. They described the future possibility of a network of recovering ecosystems that benefited the local population and, perhaps, an influx of tourists taking advantage of what is described in Scotland as 'Right to Roam." This was coupled with the sense that nature will reveal its 'wild' self in the void created by fifty years of industrial pursuit of a limited natural resource. This vision is a light-touch approach to land management with a public lands component that could be quite unique and visionary, a nature-culture attraction at a landscape ecology scale. In place of the exhausted economic use value of peat exploitation, the new wilderness enables new values to emerge.

David Bellamy, writing in 1986, outlined the challenges of future conservation at that time. With fifty-one per cent of the resource already cut away, the best of these were gone or earmarked for development (at the rate of 9,000 hectares a year.) Afforestation contributing to the drying out of peat land had been underway since 1974 and was being carried out by Coillte the Irish forest service and the Forest and Wildlife service. "Practically all the blanket bogs are now adversely affected by sheep rearing... The 1981 Turf Development Act provided support for small landowners; development grants for access roads, bog drainage and the hiring of equipment to enable more effective local harvest" (Bellamy, 1986, pp. 131-132). He described the potential for complete loss of raised bogs east of the Shannon. The overall strategy for the Irish conservation of its bog-resource was being driven by the European Parliament but he stressed the need for Bord na Móna, the Forest and Wildlife Service, An Taisce, the Irish Wildlife Federation, and the Irish Peatlands Conservation Council to work together.

The Conclusion of the Historical Context.

This section attempts to encapsulate 10,000 of the glacial period + 50 years

¹⁰ One of a series of trails developed in Ireland in the 1980s. They were developed by local walking enthusiasts, local authorities and state agencies, working with local landowners to agree passage.

¹¹ The Land Reform (Scotland) Act 2003 (which came into force in 2005) gives everyone rights of access over land and inland water throughout Scotland, subject to specific exclusions set out in the Act and as long as they behave responsibly.

of history related to the modern peat industry in a few pages. However, it is the late-modern extraction that is our true focus. It is curious to think that at some point in the past, a family threw a bit of dried sod onto a fire, watched it burn, felt the warmth and marvelled at the scent the substance released. The post-glacial lake beds were the incubators of the raised bog peatlands. They would heat Irish homes in the Midlands for centuries, then become the focal point for resource extraction and national energy policy. Kieran Farrelly, an Irishman living on an island in the bog, found a way to benefit from the total resource that surrounded him. That bog had constrained his familial interests up until the point Farrelly realised every aspect of it could be extracted and sold as product. He was successful until his interests and experimental new technologies were lost to a flood. Fifty years or so later, a Welsh engineer bought the property and began to experiment with new technologies to decrease the labour cost of extraction, the first model of peat-fuelled electrical energy production at that time. He saw electricity as a commodity that could be easily transmitted, bought and sold. The traditional ideas about turf coupled with new thinking about its relationship to electricity production became the foundation ideas for the Turf Development board who purchased this 'island in the bog' to initiate another round of technological experimentation and an age of industrial development. At this point boglands were recognised as indigenous national resources with great potential. However, it wasn't until after the war that the true potential of the age of industry was realised. The bogs became the focus of a huge social, economic and political effort to extract value from wasteland. With Bord na Móna came the political will to drive both demand and production; resulting in significant benefit to the communities and family living close to the Boora complex. Hard work was coupled with a group of individuals willing to experiment and innovate to achieve an ever more effective harvest; as the extraction, transport and uses of peat were refined, estimations of the longevity of the resource were being calculated.

As the peat-production began to slow, it was imagined that the cutaway boglands would become a 'new promised land.' The production of rich agricultural land from cutaway peat was costly so an important set of experiments began in west Offaly. A series of experimental agricultural

plots were tested and retested; afforestation with commercial species was grown. It slowly became clear that the promised land would require radical intervention to achieve the kind of utility values and levels of productivity that were sought in agricultural production. Agricultural science gave way to ecological science, and a new series of experiments explored the relationship between hydrology and underlying soil conditions allowing an emergent awareness of native species that would prosper without much effort. The next step was the idea that a 'new Irish wilderness' would emerge from the industrial cutaway bogs. However, this was coupled with a sense of the enormity of the post-industrial land that needed attention.

David Bellamy wrote from a scientific perspective about all things peat, wrestling with ideas about what could be done with a (partially) cut down bog and considerations of the real prospects for reclamation and restoration. In section II on *Sculpture in the Parklands* the team considers some of the tensions that emerged between Bord na Móna, a commercial company with the Irish government as primary shareholder, and the range of academic and non-governmental agencies that have taken an interest in the vast estate of post-extraction peatlands in Ireland.



Figure 5 : Sphagnum moss.

Image Credit: Collins + Goto Studio, 2020.



Figure 6: *Boora Pyramid* (2002), artist Eileen MacDonagh with other workshop artists and members of the Bord na Móna engineering and technical support team.

Photo Credit: Tom Egan, the Bord na Móna Archive.

This section evolved out of ongoing conversations and/or email exchanges with Michael Bulfin, Alan Counihan, Tom Egan, Ruairí Ó Cuív, Kevin O'Dwyer, Sally O'Leary, Deirdre O'Mahony, Amanda Pedlow, Aoife O'Toole, and Sinead O'Reilly. It has been reviewed by the various people quoted, prior to publication. It unpacks the past and present, in the hopes of refining questions about the future.

Sculpture | Parklands

At the end of the millennium, the 'Boora Enterprise Group' had worked through a series of practical experiments that documented the challenges regarding agriculture and afforestation as a follow-on development once the last of the commercially viable peat had been removed from what had once been a raised bog. There was an emerging awareness of the natural regeneration and value of wetting remnant peat areas and Lough Boora was becoming a blueprint for what could be achieved on a cutaway bog. The work attracted EU Structural funds and strategic political support. By the turn of the millennium, almost three hundred acres of cutaway had been flooded, for habitat and natural fen-regeneration to occur. Five basins had been dug out, all peat removed, and filled with water. Some of the lakes had settled enough to begin stocking fish. These efforts provided the framework for the provocation by Feehan and Kaye about the 'new Irish Wilderness.' Meanwhile, there were other areas of parkland that Tom Egan described as "Brown carpet open spaces" where there was room for experimentation. The idea of an amenity-based public space that was both connected; ecologically and experientially diverse; yet accessible to a wide range of visitors - was gaining traction. This was the context that would enable the development of the Sculpture Park.

The Origins of the Sculpture Park (2000-2011).

The 'awakening' of interest in the value of an amenity approach to cutaway

bog began with the Boora Enterprise Group¹² (BEG) in two reports: *Boora* Parklands: Pre-Feasibility Study (1994); and the publication from a public conference on The Future Use of Cutaway Bogs (1998). Soon after, the Lough Boora Parklands Group Ltd¹³ (LBPG) was established, members included: Brendan O'Loughlin, Chief Executive Officer of the West Offaly Partnership; Tom Egan the Lough Boora Manager for Bord na Móna; Seamus Barron, a unit leader of Bord na Móna, and representatives from local communities. The group had responsibility for the development and oversight of the Discovery Park and Sculpture Park. The shift from reclaiming cutaway bog as utilitarian agricultural or silviculture land to public land that is attractive and pleasant, with aesthetic and community value outweighing pure economic interest, was a radical shift in thinking. It was presented as a multi-use option that would enhance the economic and social life in local communities. With only 2,900 acres of raised bog harvested to the point of no further value at that time; the Boora Enterprise Group proposed that 5,500 acres (of the 20,000 acres Lough Boora complex total) would fall under a visionary integrated land use plan.

The focus of this initiative is to provide an amenity from this enormous resource that will **greatly increase the recreational and tourism potential of County Offaly**. This plan is prepared for presentation to the relevant state and development agencies, and to the public and titled 'Lough Boora Parklands.

Barron et al, 1996, Introduction.

In the following years, a discussion about a sculpture symposium, that would commission large format artwork on land owned and managed by Bord na Móna, began between members of the Lough Boora Parklands Group and Kevin O'Dwyer, internationally recognised sculptor, designer, metalsmith

and curator. O'Dwyer, who was living and working in Tullamore, had the vision and drive to produce, curate and manage a sculpture seminar organised with the Sculptors Society of Ireland. The project would embrace an understanding of the bog environment and the material, labour and industrial tools used in the production of peat. The seminar would expand upon other examples of large format public sculpture projects such as *Tir Sáile* (*Sea Country*), the *North Mayo sculpture trail* in 1993 and the *Sculpture Trail* in Hazelwood Forest, outside Sligo in 1987.

According to Tom Egan, who was the Land Projects Manager at Bord na Móna, the arts and culture approach to cutaway bog reclamation that Kevin O'Dwyer proposed was a challenging one for some in that state-sponsored commercial institution. The concept ultimately benefited from the support of Freda Roundtree¹⁴, the head of the Irish Heritage Council at the time. In the end, the material challenges and enjoyment of working with artists became a source of satisfaction and lasting pride for staff at Bord na Móna who provided support for the residency programme through the years (Egan, 2019). The images of artwork at Lough Boora have been, and continue to be, well used to illustrate corporate reports.

The first sculpture symposium at Lough Boora occurred in 2002 and Bord na Móna provided material, engineering and technical support for the artists. "The Offaly County Council, Arts Office and the Arts Council of Ireland supported the curator's payment, artist's fees and accommodation" (O'Leary, 2019). Kevin O'Dwyer invited a mix of, "Irish and international artists to make large works of art arising out of the history, materials and setting of the cutaway boglands. Uniquely supported by access to Bord na Móna's workshops and labour resources, the artists were able to realise works on a scale and ambition seldom seen in Ireland" (Tipton, 2010).

¹² Comprised of five Bord na Móna employees.

¹³ A company limited by guarantee, established as a mechanism to access and administer Leader Local Action Group funding as well as support from Offaly County Council and national bodies such as Arts Council Ireland.

¹⁴ Freda Rountree was the former national chairwoman of Crann, the broadleaved tree planting trust, she became the first chairwoman of the Heritage Council when it was established in 1995. She passed away unexpectedly in the second month of the new millennium. She had a significant impact on Lough Boora through the last decade of her life.

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Figure 7: 60 Degrees (2002), Kevin O'Dwyer. Figure 8: Sky Train (2002), Mike Bulfin.

Photo Credits: Tom Egan, the Bord na Móna Archive

The artists were given three weeks at a local B&B and were able to peruse the scrapheaps and material stores for excess materials; old machinery; railway sleepers and tracks; glacial stone and ancient wood that had been long buried and retrieved from the bogs. They were supported by a range of engineering expertise; rigging and transport; industrial-scale tools, and significant technologies that allowed them to work at, "The scale that the site demanded" (Bulfin, 2019). The model was repeated regularly over the next eight to ten years as Kevin O'Dwyer refined and developed what has been recognised repeatedly through the arts press, cultural news reporting and public awards as a unique partnership that developed landscape sculpture in the Midlands of Ireland. It evolved into an important and well-recognised collection of artworks.

The focal point of Kevin O'Dwyer's effort resulted in a public art / cultural legacy that recognised the history, materials, technologies and conditions of industrial-bog life. The list of people working on these projects over the eight years is notable. The fact that further site development and maintenance occurred after the curatorial programme had finished is a testament to the passion and pride the 'Boora Group' and the Offaly County Arts office had taken in this work. Below is an overview of everyone who worked on the project.

Artistic Director and Curator, Kevin O'Dwyer Symposia manager and consultant, Ruari O'Cuiv

Bord na Móna Land Acquisitions Manager, Gerry McNally Bord na Móna Lough Boora Manager, Tom Egan Bord na Móna Unit Leader, Seamus Barron Bord na Móna Workshop Foreman, Don O'Boyle

Offaly County Arts Officers: Rita Kelly 2002, Sally O'Leary 2003-2004, Sinead O'Reilly 2005-2016, Mary Brady 2017, Sally O'Leary 2018-present.

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The planners, engineers, technicians and staff of Bord na Móna: John Cleary, Michael Connelly, Roger Deegan, Amon Dooley, Tom Feighery, Glen Feighery, Collum Feighery, Liam Fox, Kevin Healy, Thomas Highland, Francis Kenna, Jimmy Kenny, Mick Melia, P.J. Murphy, Gerry Ryan and Marc Walter.

The Artists and the Artwork

2002	Michael Bulfin, Ireland	Sky Train
2002	Fraher, USA/Ireland	Photography
2002	Eileen MacDonagh, Ireland	Boora Pyramid
2002	Maurice MacDonagh, Ireland	Raised Line and Raised Circle
2002	Kevin O'Dwyer, Ireland	60 Degrees
2002	Jorn Ronnau, Denmark	Lough Boora Triangle
2002	Naomi Seki, Japan	A Tree in a Sculpture and Boora Stacks
2004	Johan Sietzema, Netherlands	Bog Wood Road
2005	Marianne Jorgensen, Denmark	Happiness
2006	Caelan Bristow, Ireland	Tippler Shelter and The Pavilion
2006	David Kinane, Ireland	Boora Convergence
2006	Caroline Madden, USA/Ireland	Cycles
2007	Ian Russel, USA	Reflexive Representations: Mesolithic Axehead
2008	Patrick Dougherty, USA	Ruaille Buaille
2008	Martina Galvin, Ireland	Sky + Earth
2008	James Fraher, USA/Ireland	Photography
2008	Don O'Boyle, BnM	Bog Oak Bridge
2009	Alan Counihan, Ireland	Passage
2009	Kevin O'Dwyer, Ireland	Tippler Bridge
2009	Julian Wild, Ireland	System number #30
2010	Brandon Ballengée, USA	Love Motel for Insects

2010 2010 2010	Legitimate Bodies, Ireland Alfio Bonnano, Denmark / Italy John Grande, Canada	Sculpture into Movement Earth to Sky A critical response to the Sculpture Park and symposium				
2010	Adele O'Dwyer, Ireland	Black is the Earth, Composition for cello, violin, accordion				
2010	Nigel Rolfe, Ireland/UK,	Performance				
2010	Grace Weir, Ireland	Transect, 7min Video				
Bord 11	a Móna commissions by Tom Egan Ross Hathaway, Ireland With the Offaly Crafty Group	outside the Sculpture Park: Earth Wind and Fire				
2016	Padraig Larkin, Ireland	The Celtic Knot, A-Maze in a Willow World				
2016	Dry Stone Association of Ireland Ken Curran, Eddie Farley, Sunny Wieler with Nick Aitken of Scotland, Sean Adcock of Wales	The Gathering of Stones				
2017	Tom Egan, Don O'Boyle, Ireland	The Black Forest				
Work relocated outside the Sculpture Park by the Offaly County Arts Office:						
2016	Amanda Ralph, Ireland	Paper Boats				

Reviewing the list of curated work, there is a sense of the range of ephemeral and permanent landscape-based work in the Sculpture Park. Some works enhanced the view and conception of the park; others demanded attention with their sheer scale and presence; whilst some pieces enclosed the audience in materials from the bog or the industrial processes. In the first seminar (2002) the material realities of Michael Bulfin's iconic *Sky Train* and the formal gravitas of Eileen McDonagh's *Boora Pyramid*

were offset by the opposing tensions embedded in Naomi Seki's, *Tree Growing out of a Sculpture*. Both Carolyn Madden and David Kinane embraced an iconographic material / narrative approach in 2006, whilst Patrick Dougherty (2008) returned to formal concerns with ephemeral materials in *Ruaille Buaille*. The projects in 2009 were different again with context being essential to each work. Alan Counihan's project titled *Passage* opened up a path through a remnant mound of peat and provided a symbolic material narrative, while Julian Wild drained the canal, to visually complete a fabrication in steel about skipping stones. In 2010 ephemeral / temporary work came to the forefront with a range of efforts including: Brandon Ballengée's *Love Motel for Insects*, a light system for attracting moths; *Black is the Earth*, a musical composition¹⁶ by Adele O'Dwyer; and Grace Weir's video, *Transect*, a consideration of art and science, objectivity and subjectivity. The artist residency programme and commissioning of works came to an end in 2011.

After 2010 the works commissioned by Tom Egan outside the Sculpture Park, were informed by his relationships with regional and national craftspeople such as the Celtic Roots Studio, who used bogwood in jewellery, sculpture and architectonic constructions. They created, for example, meticulous work for the altar, walls and baptismal font at St Mary's Church in Pollagh. It can be argued, therefore, that work commissioned since 2010 is best understood in terms of an adherence to craft and artisan-builder traditions. There are connections between Don O'Boyle's *Bog Oak Bridge* and the practical aesthetics at work in Caelan Bristow's *Pavilion* and Kevin O'Dwyer's, *Tippler Bridge*. One can also make linkages between the *Gathering of Stones* by the Drystone Association of Ireland and the formal and material narratives embedded in Carolyn Madden and David Kinane's work.

I suppose of all the sculpture symposia I have been on Lough Boora was my favourite. Partly it was because it was in my local area, I was working with materials that I had seen for so many years traveling around the bogs. I drew out the design and they started to get parts in from Longford from Tipperary, then they found the caboose as well. They made a better sculpture for me than I imagined at the start.

Michael Bulfin, 2019.

Managing the Development of a Sculpture Collection (2011 - present).

The Lough Boora Sculpture Park, initiated by Kevin O'Dwyer as the Artistic Director, was overseen by the Lough Boora Parklands Group Ltd.¹⁷ and supported by the Sculpture in the Parklands subcommittee¹⁸ established in 2002. It ceased despite significant accomplishments in 2011 due to unresolvable differences. Bord na Móna continues to own the land, manage public access and maintain the larger Discovery Park and the sculptures. Offaly Council's Arts programme and the Arts Council of Ireland provided €250,000 in funding from 2002-2011 to support the curator and artists; they retain an interest in this long-term investment and continue to fund work that has potential to open up new ideas about the future partnership. In the 2012 Offaly County Arts Strategy a new partnership and a five-year plan were priorities. Consideration of rebranding was also outlined as the 'National Sculpture Park at Lough Boora' as one of the key objectives. In 2014 the Offaly County Council re-established a Lough Boora Sculpture Park Steering Group¹⁹ with Bord na Móna, in part to protect the investment and find common ground in the maintenance of the artwork in the Sculpture

¹⁵ In translation 'Caused a Furore' alludes to other meanings.

¹⁶ Black is the Earth is still available online in several sources, including Amazon, Spotify and Soundcloud.

¹⁷ Comprised of members from Bord na Móna and the local community groups and Offaly County Council and West Offaly Partnership Group. Their focus was parking, information signs, walkways and the sculpture park.

The membership of the sculpture group included Kevin O'Dwyer, Ruairi O'Cuiv, Sinead O'Reilly OCC, Tom Egan BnM, John McNiff BnM, Don O'Boyle BnM, Seamus Baron BnM and Brendan O'Loughlin West Offaly Partnership which merged with the Offaly Local Development Company formed from an amalgamation of four organisations in 2008.

¹⁹ The steering group included BnM Chief Executive Gerry Ryan and National Land Manager Pat Ring. Artist Alan Counihan was a paid artist adviser.

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Park. That Group could not find agreement and subsequently stalled. It would be 2018 until a new Memorandum of Agreement was established by Bord na Móna and Offaly County Council²⁰ and they commissioned this 'deep mapping' as an outcome of the new partnership. At the same time, executives from Bord na Móna and the Offaly County Council commissioned the *Lough Boora Discovery Park, Feasibility Study / Strategic Plan* for tourism development (in draft final form as of October 2019).

The Sculpture in the Parklands subcommittee was developed in 2002²¹. Kevin O'Dwyer was appointed curator as an aspect of the community engagement / management remit of the Lough Boora Parklands Group Ltd. He was reportedly working closely with Bord na Móna but had an irregular relationship with the Offaly County Arts Office. Confirming this, the Offaly County Council Arts Plan 2012-2016 states: "Between 2000 and 2004, the Arts Service had experienced some inconsistency due to a high turnover of personnel and consequent gaps in the service" (Offaly County Council, 2007, p. 19). Arriving as the new Offaly County Arts officer in 2005 (prior to her appointment at the Arts Council) "...Sinead O'Reilly noted that despite having been invited onto the subcommittee she was unaware of any meeting of the subcommittee having taken place" (O'Reilly, 2019). In 2020 Kevin O'Dwyer contributed his records from 2002-2011 to the County Council archive Interviewing various members of the Lough Boora Parklands Group and the Sculpture in the Parklands subcommittee it was generally agreed that either Kevin O'Dwyer and /or Brendan O'Loughlin would have been responsible for contracts with the artists. By 2010 tourism was an increasingly important means of securing investment for the economic development of Lough Boora Discovery Park. Discussions about relocating the Clonmacnoise and West Offaly 'bog'

Railway to Lough Boora were discussed. New plans were in progress for a cultural infrastructure bid to Failte Ireland. Various people involved at the time agreed during interviews that there were tensions over art and tourism and future development. Vincent O'Shea, an arts consultant who had experience in festivals and public art commissions, was commissioned by O'Dwyer to write a 2011 report on the future of O'Dwyer's effort and the practical mid to long-term issues that needed consideration if *Sculpture* in the Parklands was to continue. One of the weaknesses identified in O'Shea's SWOT analysis, was: "Poor communication between partners about operations and the future" (O'Shea, 2011, p.4). The report found that the Sculpture Park and the curatorial effort should remain independent; ownership of the artwork needed to be clarified; a leasing arrangement was necessary to establish control and a new arts charity structure should be put in place to enable productive relationships amongst the essential partners. Finally, the Sculpture Park should be rebranded the 'Irish National Sculpture Park', with a commitment of regular funding. The report concluded with the statement, "Without ongoing funding from Offaly County Council, and the Arts Council of Ireland, Sculpture in the Parklands cannot survive" (O'Shea, 2011, p.18). O'Dwyer subsequently stepped down from his role as curator.

In 2014, three years after the demise of the partnership structures at Lough Boora, a new Sculpture Park Steering Group was established. The Arts Council of Ireland and Offaly County Council provided funding to commission an artist to consider the 'state' of the public investment in art and cultural infrastructure on the Bord na Móna property at Lough Boora. The artist Alan Counihan was engaged to advise on a new curatorial programme and the maintenance of the Sculpture Park. Counihan proposed 'an audit of all the works on-site and a plan of maintenance' as the first order of business²² (Counihan et al, 2015). According to Counihan, Tom

²⁰ In the 2012 Offaly County Council Arts Strategy, a new partnership and a fiveyear strategy were priorities. Consideration of rebranding was also outlined as *The National Sculpture Park at Lough Boora* was one of the key objectives.

²¹ Sculpture in the Parklands was a subcommittee of the Parklands Group. The latter provided the mechanism to transfer Offaly County Arts and Irish Arts Council funding. This was the mechanism used to pay Kevin and the artists working on the Sculpture Park.

Alan has intimated that some progress was made on this point. Tom Egan has discussed recent efforts to repair and upgrade sculpture including some work on Naomi Seki's *A Tree in a Sculpture* at the end of August this year.

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Figure 9: *System number #30*, (2009), Julian Wild. Figure 10: *Passage* (2009), Alan Counihan. Photo Credits: Tom Egan, the Bord na Móna Archive.

Egan and Sinead O'Reilly, who was the Arts Officer for Offaly County Council during that period, it became clear that the attempt to agree on the future commissioning of new artwork was hindered by concerns about responsibility and reservations about collective decision making; so new artwork was halted. Alan Counihan worked with Tom Egan and Don O'Boyle surveying all of the work and signage in the Sculpture Park on the 4th of November 2011. Submitting a written report a month later, Counihan offered a detailed reflection on each piece in the park. He suggested that attention be given to the information panels that interpret the work and reveal some of the details of the process. He also recommended regular maintenance and attention to health and safety. Finally, he recommended no new work in the Sculpture Park until the maintenance issues could be resolved. On one level Lough Boora Sculpture Park was winning many awards and being lauded as an exemplary public-private art and industry project. However the underlying tensions evident in the O'Shea report were still present.

When interviewed about the future at Lough Boora for this 'deep mapping' report Alan Counihan stated,

[I would like] ...to see the development of a creative programme that espouses a serious engagement between art and nature and of a land art that addresses climate change in a place that has, through extractive exploitation, contributed so much to it [climate change] over several decades but which now has the potential to become a place that makes a meaningful contribution towards the reversal of the global warming which threatens us all. There is no more important work.

Counihan, 2019.

Speaking with the artist Michael Bulfin he concurred about the present condition of the artwork and the future. He agreed the importance of maintaining some of the work but thought there should also be new work. His response regarding maintenance of the *Sky Train* may be seen as surprising. "*Sky Train* was never meant to be maintained. When I was talking to people down there for the culture night in October (2019), I said I hoped to get, you know, 50 years out of it. Once it gets to the point that it is a health and safety issue it should simply be removed" (Bulfin,

2019). Often stone and steel are regarded as 'permanent' in the arts. It is interesting to rethink these assumptions in the context of the industrial era of peat production where the tools and equipment of the industrial infrastructure are already starting to rust away. There is something very fitting about the 'signature piece' of Lough Boora Sculpture Park one day being removed leaving nothing more than a photographic legacy. However, what would the next iconic work of the future bog be? Bulfin spoke of his background in environmental science and his interest in the ecological recovery of the boglands. Perhaps, now, there is the potential for a symposium to develop new work that embraces more than one discipline with a focus on the future (rather than the past)? This might bring together different generations of artists, including key figures such as Michael Bulfin, Alan Counihan, Eileen MacDonagh and Caroline Madden. There is the opportunity to run another large sculpture seminar in 2022. Furthermore there seems to be appetite for this. Offaly County Council with Bord na Móna the Arts Council, other funders and supporting institutions are all currently working together. Recently commissioned work includes this deep mapping study and The Lough Boora Discovery Park; Strategic Plan (draft) discussed below. Yet it must be said that regardless of the vision of a future seminar or the direction the Sculpture Park takes, there is huge potential.

Discussing the future of the Sculpture Park with Tom Egan it quickly became apparent his thought process goes beyond the art world. It is clear he is fascinated with the sculptural process and the impact it had on the technicians and fabricators at Bord na Móna who helped produce the work. He talked about the evolution of his role: first overseeing utility agriculture experiments; then early attempts at reclamation and lake formation, then his return to University to study ecology. He expanded on his experience with art, sculpture and a new way of using Bord na Móna facilities but stressed this was only one aspect of his remit. He was responsible for a range of challenges, including the interpretation of the Mesolithic site. He has specific concerns about the impact the forest plantation, and its scheduled harvest, has on the aesthetic perception of the natural condition of the site. He is actively considering how to make

the park function as a social amenity for the widest group of people possible, and how it could serve local villages.

Sculpture | Parklands

His sense of responsibility relates to everything, from the grey partridges who stray from their conservation site, to the moss and heather that has dried out on the roof of Caelan Bristow's *Tippler Shelter*. Nature is Egan's first love, although he has a passion for craft, making and Irish culture. This is clear as he unpacks the international provenance of the stone and range of craftsmanship embedded in, *A Gathering of Stones*. Setting aside what is art and what isn't, he compares it to Eileen MacDonagh's *Boora Pyramid*. His 'crew' spent months gathering stones from bogs all over the Midlands and beyond to be ready to construct that work when the artist arrived.

Sally O'Leary and Sinead O'Reilly have a more distanced relationship to Lough Boora Sculpture Park and its historic development; it wasn't something they were involved in on a day-to-day basis as Tom Egan was. In a conversation about the role of arts and culture at Lough Boora Sinead described working groups and partnerships with best intentions, but little traction or shared purposes. A review of the history has examples of relationships which favoured individuals over committees, production over shared vision, and siloed funding. Sally O'Leary described the present condition as a recognition "...that there is a need to rethink the structure between the Offaly County and Bord na Móna." She described the current Memorandum of Agreement as an "overview of the ways the different parties operate. With clarity about their individual core purposes and the shared opportunity of cultural investment that can be best achieved through partnership" (O'Leary, 2019). O'Leary shared her great hopes of getting back to the five-year arts strategy for Lough Boora that was first identified in the 2012 Offaly County Council Arts plan, an opportunity to develop new visions and goals. However, she recognised the challenges of ownership and maintenance and the fundamental need to control the collection and the space within the Sculpture Park. The identity and value of the collection is somewhat complicated by the lack of a shared vision, and the potential for a larger tourism venture. The general sense is that art, heritage and tourism are simply pathways to resource. It is what is done with that resource and

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Figure 11: *Cycles* (2006), Caroline Madden. Figure 12: *Boora Convergence* (2006), David Kinane. Photo Credits: Tom Egan, the Bord na Móna Archive.

respect for the standards and ideals of all parties involved that shapes meaningful outcomes and long-term partnerships. If there is now clarity about individual core purposes and the shared opportunity maybe this time things will be different.

Other Models.

This section would be incomplete without an analysis of how other arts and cultural initiatives might help in considering different approaches to Lough Boora. *Tír Sáile* (the sea country), or the North Mayo Sculpture Trail (1993), was posited as an exemplar. Tir Sáile was also initiated by an artist, Marianne O'Donnell, who began conversations about "...a symposium related to the Céide Fields discovery" (Hynes, 2001, p.9). Discussions began with Peter Hynes²³ the County Architect and Seamus Caulfield, the archaeologist who initiated efforts at Céide Fields; the most extensive Neolithic archaeology site in Ireland, located on the North Mayo Coastline...". In this case, although work was organised in the same way as the Lough Boora Parklands Group, it was geographically dispersed along the Mayo coast. "Marianne O'Donnell invited the four international participants and brought them here for a preliminary visit of the sites in advance of the symposium. She organised a viewing of the potential sites for the interested Irish artists and facilitated the open submission competition" (O'Toole 2019, Nov 8, 13). It could be surmised that this process was similar to the way Kevin O'Dwyer was working at Lough Boora in 2002. The difference was context. Lough Boora, at the point of inception of the Sculpture Park, was a boundaried expanse of brown cutaway peat with little growing on it. A unified field, a brown peat gallery. While an expanse of 100 kilometres of wild coast of western Mayo would have different landforms, vegetation, weather and light exposure, and a mix of tilled and untilled lands, forest and stone outcrops.

²³ Peter Hynes was appointed head of the Mayo Council Architecture programme in 1989. In 2001 he became Westport town Manager and was responsible for council services in Mayo west. In 2010 he became the chief executive of Mayo County Council.

The *Tir Sáile* project set out to explore a number of topics including the role of art in the making of place and in the making of community. It also dealt with ideas of settlement, human activity, folklore, mythology and farming. The range of pieces which resulted from the process reflects these concerns

Peter Hynes in Lonergan, 2001, pp. 8-9.

The exciting aspect of *Tir Sáile* was the ambitious scope of that work, with tourism being both at the core of the intended audience and a source of funding. It was organised as a sculpture symposium in 1993. The focus was a deep archaeological / cultural history, considering emergent ideas of heritage and the role the arts have in providing form and definition to history and place-based experience by creating a series of waypoints in a coastal journey. "The work was funded through the Mayo 5000 programme which was a year-long tourism programme to promote County Mayo and 5000 years of civilization based on the findings in Céide Fields. Dealbhóireacht 5000 Teoranta, managed Tír Sáile, it was an independent company with representatives from: the Council, both staff and councillors; Ireland West Tourism; local Erris representatives; a Mayo 5000 representative, and the Mayo Arts Officer at the time. The Chair was Peter Hynes, then the Chief Architect. The Mayo County Arts Officer John Coll ... worked with Hynes to oversee the project" (O'Toole 2019, Nov 13, Dec 11).

The original *Tir Sáile* work was a project of Mayo County Council Arts Officer (John Coll) and the County Architect (Peter Hynes); although it predates the 2003 Arts Act of Ireland which would require a local authority to prepare integrated²⁴ plans for the arts (and architecture) efforts within county councils. The *Spirit of Place* was produced under the architect Peter Hynes who was then Director of Services for Mayo County Council, by 2010 he would become Chief Executive of that Council. The two projects are considered separate by professionals in the public arts community in Ireland, partly because of the overwhelming architectonic focus of the latter

work; in part because of the lack of involvement of the Mayo County Council Arts Officer or their Public Arts Coordinators. Much of the general sense of discomfort can be tied to the fact that *Spirit of Place* functioned more like a sustained series of private commissions than an open call for artists, or even a curated exhibition. In hindsight the effort seems insular and a challenge to best practices in public art. (Tipton 2018, offers extensive critical detail.)

Twenty years later the Mayo County Council Arts Office conducted a number of *Tir Saile* site visits, the most recently written condition reports were in 2013 and 2017 of work that exists over an area of 100 kilometres, running between Killala and Blacksod in Northern County Mayo. According to Mayo County Public Arts Coordinator Aoife O'Toole, despite the original intent to 'produce work that would endure the test of time' some of the work got lost in the North Mayo Coastal Environment. Some was intentionally ephemeral with natural degradation part of the aesthetic intent, but other more substantial works had become hard to find; "Due to changes in roads / forestry / vegetation over the past 23 years." Work on private land often saw better maintenance. More recently, in 2017, part of Tir Saile was reviewed and refurbished by Mayo County Council Arts Office in partnership with Áras Inis Gluaire / Erris Arts Centre in Belmullet and working with local agencies, especially Erris Beo" (O'Toole, 2019). Three new commissions and a seminar occurred in 2017. The collection and the intention of the Sculpture Trail was subjected to significant review, with the work being revalued and updated with new narratives and signs. A public website has materials written for a diverse and international tourist audience. Like Lough Boora, Tír Sáile or the North Mayo Arts Trail continued to develop in unexpected ways. The Mayo County Council seems to have been consistently behind the work with tourism funding as the engine. County Mayo has a north-western coastline of ubiquitous beauty along 100 kilometres of economically constrained rural area. An archaeological study initiated an interest in the placement of art that engages the landscape, culture and the communities of the region. At the same time, the artefacts provide waypoints for tourists interested in the arts, culture and heritage of Irish coastal experience. Speaking with Aoife O'Toole about the ongoing effort to sustain and reclaim the value of *Tír Sáile* through ongoing investment of time and money by the Mayo County Council

The arts act of 2003 describe a need for integrative planning for visual art, theatre, literature, music, dance, opera and architecture.

Arts Office, she said:

Key learnings from *Tír Sáile*... is the importance of an assessment and maintenance plan from the onset of a project. Also a continued marketing plan. I have had a couple of queries recently regards people looking to find Tír Saile and not being able to find information in local tourist offices. Following on from this I will be looking into possibility of a hardcopy map and other ways to promote the [evolving work] with the assistance of tourism. Projects like Tír Sáile also bring up considerations worth exploring regards environmental sustainability, remote experience of work, harnessing new technologies and how they interact with sculptures. O'Toole 2020, Jan 20.

Tensions between arts funding and tourism funding; as well as the differences in oversight and management of artwork over time under the different funding regimes was one of many points raised at a symposium celebrating three new commissions in 2017. Mayo County Council and Áras Inis Gluaire / Erris Arts Centre commissioned artist residencies in Erris, County Mayo. The artists selected included Gareth Kennedy, Noah Rosa and Selma Makela and Joanna Hopkins. The artists worked with the communities and revisited some of the Tir Saile sculpture trail sites renewing aspects of the overall project. Upon completion a symposium was organised by Sally O'Leary.25 Aspects of the important historic work, the new commissioned work and the challenges of being responsible for work over diverse sites were all discussed. How Local Authorities deliver public projects in rural contexts was discussed, as well as standard approaches to "...procurement, funding, the use of expert frameworks and public consultation." The organisers made a point of differentiating the relationship between public art projects along the coast that were part of the remit of the Mayo Arts Office and Public Art Programme and projects such as Spirit of Place that were not (O'Toole 2020, Jan 20).

Tourism funding was the focal point of an ongoing debate during the seminar. "Some artists during the open discussion found it to be a less than ideal way to fund the work of artists" (O'Leary, 2019). The tensions between the practical needs of a tourism initiative were in tension with the traditional Irish concept of a 'Meitheal' or a working party organized to serve some greater good. This practice is a uniquely Irish social-material process which was essential to narratives attributed to John Coll (deceased) the Mayo County Arts Officer in the years that worked on Tir Sáile. The Meitheal was also a method that was resonant with the newer generation of artists attending the symposium in 2017. These representations are in tension with statements found in Tír Sáile The North Mayo Sculpture Trail (2001). In the introduction, Peter Hynes challenges the notions of a Meitheal: "The initial ideal of a classic symposium or the artists' Meitheal was modified by the scale of the landscape and the distances covered by the project." Peter Hynes goes on to say that the artists were working "....in closer relationships with the community groups and other support agencies associated with their specific sites" (Hynes, 2001, pp. 7-8). Perhaps the differentiation of a Meitheal as an 'artists working party' versus artists immersed in a community collaborating to complete something in common is a subtly different meaning that is more typical three decades later.

It is fair to say that the two projects reveal tensions between art and tourism in the rural landscape. The way the *Spirit of Place* effort was commissioned and produced raises concerns with public artists and curators in the same way that the craft / artisan work commissioned between 2012 and 2017 by Bord na Móna at Lough Boora did. Within the critical discourses of tourism, as well as large format public artwork, architectural or architectonic work and craft / artisan efforts have a shared quality. The arts community differentiates intention, process and the quality of the outcomes, in part based on the freedom inherent to arts funding sources, and with a long-term interest in maintaining a consistent context in which works will be appreciated.

In a report funded by Failte Ireland, arts and culture respondents discussed "...the widely diverging demands required of them by tourism and arts funders. Another is how the short-term funding of the arts sector does not

Working on a temporary contract for Mayo County Council, work included, organizing the symposium, maintenance report and recommendation, developing signage and the new website with external designer.

facilitate the long-term planning needs of the tourism sector" (Mottiar et al, 2013, p.54). The report details the differences between the sectors, the quality and control issues that permeate the discussion of these kinds of partnerships and the range of funding mechanisms and divergent criteria that make this kind of cross-sector cooperation difficult. The trouble is perhaps that it is easier to retain the silos and talk about the problems than it is to find solutions when values and differences are significant.

Current Future Plan: Lough Boora Partnerships.

Bord na Móna's Lough Boora Enterprise Group and its concept plans for the Park were the first generation to embrace tourism as a means of realising eco-cultural programming goals. The second (2012) generation Bord na Móna proposal to Failte Ireland resulted in a limited funding response that was used to develop parking, pathways and a visitor centre. It was reportedly a set of more theme park-orientated ideas being discussed during the development of the proposal that unsettled some of those involved in the Sculpture in the Parklands subcommittee. However, there were also conflicts about free parking, public access /public realm ideas. Management and oversight of the entire Discovery Park and the Sculpture Park were to return to Bord na Móna, as a matter of company policy decreed by the Managing Director at the time, Gabriel Darcy. He supported the reclamation of social and aesthetic value after resource extraction wherever a cutaway bog was close to, and in a relationship with, small villages and rural social economies. At that time the social and cultural reclamation of value appeared to be central to Bord na Móna Policy. However, the current draft plan (Mac Nulty, 2019), reversed that position and presented a Bord na Móna policy of not engaging in tourism and which raised a new set of questions about what baseline values might be shared across the future partnership.

In recognition of the fact that Bord na Móna is not a tourism development or management organisation... It will be vital for partnerships to be enhanced further with public and private sector organisations. This outside expertise is required both to develop and

manage future developments, and to build a marketing brand and strategy for the park.

Mac Nulty, 2019, p.v.

This statement recognises the new challenges for an organisation originally charged with developing peatland extraction. Future planning and experiments in the reuse of boglands are all part of Lough Boora's natural heritage.

Bord na Móna is not a tourism organisation; rather it is in tourism by default through its landholdings, having invested in and managed facilities in an emerging partnership basis to date.

Mac Nulty, 2019, p. 6.

The question to ask a semi-state corporate landholder, who has worked a resource to the limits of current regulations and policies and is now seeking new income streams is, what will be done with those landholdings in the mid to long-term future?

On arrival in Offaly County, the team was apprised about a new Memorandum of Agreement between Bord na Móna and Offaly County Council (2018), including Terms of Reference for the Management Committee of the Sculpture Park at Lough Boora Discovery Park. It was the Management Committee that commissioned this 'deep mapping' project. At Lough Boora with Bord na Móna, the team received a copy of The Lough Boora Discovery Park: Strategic plan (draft) produced by Tourism Development International in Dublin. The work was jointly funded and prepared for Offaly County Council and Bord na Móna. The Situation Analysis and Market Research areas of the study (a proposed plan) considered the County Council's policies on tourism, and priorities for master planning and integrated public realm development, as well as a focus on the Sculpture Park element. "Bord na Móna recognises the park as a centre of excellence in biodiversity, art and nature." The report endorsed nature-based experience, additional outdoor pursuits and a museum of peat harvesting, (while maintaining that Bord na Móna are not in the business of tourism development.) The first paragraph of the Executive Summary described the sculpture, its

metaphorical value and its potential to reorient aesthetic attention, the "Sculptures inspired by the Park's nature and history create an ambience of peacefulness and harmony between man and nature" (Mac Nulty, 2019, p.IV). The practical Vision and Feasibility areas of the draft Lough Boora Discovery Park Tourism Plan (2019) commenced with situation and market analysis to inform ideas characterised as 'product development and operational considerations' and concluded with concept plans, estimated financial projections and a market matrix analysis. Working from a model of naturebased tourism demand, the authors concluded that: an "Outdoor experience activity / attraction majored [focused] on the site's natural features and biodiversity, an eco-aware site of special interest where visitors can engage nature and learn about nature would be appropriate for a future centre of excellence in eco-tourism" (Mac Nulty, 2019, pp. 29-30). This could be seen as the best element of the plan, although the actual meaning of ecology at Lough Boora is perhaps the least developed idea within it. The strategic plan does not consider the process and methods of partnerships which are deemed essential in the vision and feasibility section of that report. There was some consensus amongst those who had read the draft report that all those who had key roles, both in the Sculpture Park and the Discovery Park, needed to be aligned on policy decisions. Others thought the idea of developing a green business model at Lough Boora would be a productive direction. Ideas like biodiversity, art with nature, and a branded recreation centre with high socio-economic benefits were all considered useful and moving in the right direction. In a section on proposed future position, Lough Boora Parklands will be a day visit site, a hub and spoke visitor attraction that is "Bord na Móna financed and managed, a flagship attraction in strategic partnership with Offaly County Council" (Mac Nulty, 2019, p.35). This is juxtaposed with the Park's present position as a (seasonal) day visitor attraction which is solely financed and managed by Bord na Móna. Should the regional hub and museum exist in one of the nearby villages where a wider range of services are available? Should Lough Boora be one of the spokes amongst the conserved and cutaway, reclaimed and restored bogs that contribute to the larger narrative of a post-peat feature landscape?

The draft 2019 Tourism Plan proposes a permanent exhibition / museum that tells the history of the site and features the machinery used in peat extraction. It also plans workshops for craftspeople to make and display their work and an extension of the art and nature Sculpture Park into educational initiatives and performance events. Regarding the Sculpture Park, the plan states, "There are already plans, through the agreement, for a curator to administer and strategically guide the Sculpture Park in order that the area is continuously maintained and additional features incorporated, both in the outside areas and the museum / exhibition hall" (Mac Nulty, 2019, p.49). This recognises the maintenance question and the need for a curatorial role. There are also plans for a specialist events manager who will develop and manage the Pavilions at Boora and the events programme. However, the funding stream for such appointments is not yet identified. The job descriptions for a curator and events manager are on the agenda of the Management Committee for the Sculpture Park, established by the 2019 Memorandum of Agreement. Although aspects of strategic development are in place, there are other items, such as the five-year Arts Plan which still seem to need to be addressed.

The plan outlines a budget of €2,540,000 for infrastructure investment producing a new Cycle Velo rail system, a permanent museum, extant building refurbishment, and landscaping and maintenance. It concludes with a budget and notes: "When the new Cycle Velo and Pavilions at Boora are up and running it is expected that over a 5-year period an extra 2-4 full-time jobs will be created and an extra 5-10 part-time jobs" (Mac Nulty, 2019, p.52). The proposed budget will also provide funds to refurbish Bord na Móna properties. It is estimated that ten jobs will be created during the building phase, complementing the permanent jobs created once the work is complete. However, unresolved issues such as land ownership and ownership and maintenance of the massive sculptures, including removal at the end of their life cycle, still remain. Finally, there is the issue of post-peat public and private areas, and how the values, boundaries and conditions of public access and use will be defined.

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Conclusion.

The Lough Boora Parklands project was initiated by the Bord na Móna Enterprise Group with the intent to open up the post-peat landscape to experimental ideas of amenity-based public space. This idea was validated at the time by a stated intent to increase recreation and tourism in western Offaly County; where vast estates of cutaway peat first fell out of production at a scope and scale that attracted public attention. This was the context where the Sculpture in the Parklands project would take hold. Successful on many levels, it captured a sense of the labour and industry of peat extraction. These were embodied in the materials, method and/or the form of the artworks. The regeneration of the landscape around it became part of the narrative and added a sense of the vitality of nature. It was an exemplary arts and industry initiative embedded in a recovering landscape. It received significant awards and international recognition. Bord na Móna, Offaly County Council, Offaly Local Development Company, Arts Council Ireland, Failte Ireland, Coillte and the National Parks and Wildlife Service all played a role in the aesthetic recovery and public access to the landscape. Sculpture in the Parklands was always set apart from the more practical landscape and tourism efforts. However, the Bord na Móna site and workshop crews involved in the engineering and production sustained an interest in the care and maintenance of the artwork. The Offaly County Arts Officer and the Arts Council of Ireland also took a long-term interest in what was, until 2011, a regular iterative investment that provided room for art to occur outside the practical considerations of other funding.

Lough Boora Parklands Ltd emerged out of Bord na Móna at the turn of the millennium as a public-private partnership. This entity brought together diverse interests with complementary expertise to realise the new postpeat amenity-based public park. All funding went through Lough Boora Parklands Ltd, and the group had responsibility for planning, development and oversight of delivery and finances. Two years later a subcommittee was formed to advise the independent curator, following the unexpected offer of a sculpture workshop. A decade later, the parent group felt the need for external investment, and tensions between tourism and arts took hold. By 2011 the Bord na Móna leadership decided to simplify the process and

internalise decision-making and both the advisory group and partnership group folded. There was a later attempt at another partnership, with the hopes of finding common ground on the maintenance and care of the Sculpture Park, which came to no definite conclusion. Five years further on (seventeen years after the first sculpture symposium) a new Memorandum of Agreement was written and confirmed. In 2019 / 2020, a business plan for tourism enterprise was underway, and this 'deep mapping' exercise was intended to reveal elements (including the need to manage, refine and extend the extant sculpture collection) that might be considered useful for sustained forward-looking arts and ecology development.

In any situation, there are opportunities and constraints. The most significant opportunity is that the Boora complex and various nearby cutaway and raised bogs have been amongst the first to be jarred free from their resource assignation. There is also a history of being first to develop the extraction industry and, in turn, first to experiment with a range of reclamation, rehabilitation and restoration techniques. They were also first to realise the potential, and limitations, of natural regeneration. The Boora complex of what were once spectacular raised bogs is now drained peatland of significant spatial consequence but little or no productive value. Either cutaway-peatlands need to be rewet and lay fallow for nature to begin to regenerate on its terms, or there needs to be an investment in various forms of reclamation and restoration. It was once believed cutaway peat could be turned into productive agriculture and silviculture land. Instead, a vast estate, with potential as a public realm with a social / recreational form, and an emergent ecological / biodiversity form, has emerged from the industrial harvest in west Offaly County. Today carbon sequestration and its relationship to global climate change is the driving force behind a national rewetting strategy. Renewable energy development is replacing peat extraction as a means of developing a national energy plan. The actual means of affording reclamation and restoration as the peat / energy industry ends, creates new uncertainties and greater reliance upon old partnerships and traditional support mechanisms. Part of the challenge is how to leverage innovation and experimentation into the imagining, planning, and initial development stages.



Figure 13: A Tree in a Sculpture (2002), Naomi Seki. Photo Credit: Tom Egan, the Bord na Móna Archive.

There is the opportunity for new and better partnerships and the potential to develop a vision that is both locally and nationally recognised and relevant to a range of funding bodies. Tourism funding is often concerned with thinking beyond individual sites and looking at networks within regions. Failte Ireland focuses on the evidence of attendance and, wherever possible, indications of overnight stays. The local expenditures that attend travel are part of the economic vitality that tourism investment is trying to initiate. Arts funding (Arts Council Ireland) is more complex. It is about enabling the conditions and circumstance where excellent artwork can occur, which is in turn coupled with public enjoyment of that work. However, it is also concerned with public funding being well spent to meet new spatial and demographic capacities. Creative Ireland has taken a clear stand supporting an interdisciplinary approach to the role of art and culture in climate change. The remit of the Heritage Council includes monuments, archaeological objects, and heritage objects such as art and industrial works. Attention is given to documents and genealogical records, architectural heritage, flora, fauna, wildlife habitats, landscapes, seascapes, wrecks, geology, heritage gardens, parks and inland waterways. Bord na Móna is wrestling with the question of what to do with specific sites like Lough Boora and, perhaps, the Boora complex, this is only one small part of the overall challenge. Offaly County Council must deal with post-peat placemaking and sustained economic vitality, with the arts, natural heritage and culture playing a significant role.

Perhaps the high-water mark in the history of peatland art...Sculpture in the Parklands on 20 hectares of cut-away bog at Lough Boora Discovery Park, Co Offaly. This [project] set in train a new era of Irish Midlands art on the international stage that may very well end up defining Ireland's artistic identity in the future, especially now that Bord na Móna has committed to ending all peat extraction by 2030. We might come to associate Ireland's Midlands bogs with wild sculptural installations rather than rapacious turf extraction.

Magan, 2016.

DEEP MAPPING LOUGH BOORA SCULPTURE PARK



Figure 14: *Reiko Goto with a wind-blown birch tree on Mongan bog*. Mongan is one of the six significant raised bogs that are being restored and conserved. It is two kilometres east of the Monastery at Clonmacnoise.

Photo Credit: Collins + Goto Studio, 2019.

Bord na Móna is a majority state-owned company that recognises that peat is a finite resource... and over the next twenty years or so it is envisaged that large areas of the operational Bord na Móna bogs will become exhausted of commercial peat while no new bogs will be brought into production. The most obvious question is what will happen to these extensive peat production areas?

Bord na Móna, 2010, p.ii.

Ecology | Context

The following pages provide an overview of the shift in thinking from peatlands as an industrial setting where peat is strip-mined: to boglands being viewed as living ecologies, a community of organisms suitable for reclamation, rehabilitation or restoration. The concept of autonomous regeneration is an integral part of this section and is a focus of the conclusion. Bogs were seen, until the 1970s, as wastelands repurposed as valuable fuel for energy with no other apparent values. For some this led to a sense of loss and the raised bogs of Offaly Country gained international attention in the 1980s. In the ensuing decades, ideas about conserving, rehabilitating and restoring raised bog wetland started to take hold. The emergence of the Peatlands Conservation Council and various academic interests was coupled with a national assessment in 1990. In 1997 the *Special Areas of Conservation* (SAC) as defined in the European Union's Habitats Directive was established in Ireland. The remnant Raised Bogs of Ireland were systematically reviewed and assessed for conservation purpose in 2000 then again in 2017. ²⁶

Bord na Móna released its first biodiversity plan in 2010. The government established a Peatlands Council in 2011 with a Chair appointed by the

The raised boglands identified under the Special Areas of Conservation were reviewed in a *Strategic Environmental Assessment of the National Raised Bog SAC Management Plan* published for the period 2017-2022. The report was written by RPS Ireland for the Department of Culture, Heritage and Gaeltacht, Peatlands Management Unit, National Parks and Wildlife Service in December 2017.

Minister for the Environment, Heritage and Local Government. It featured diverse stakeholders with private and public interests in both traditional and industrial extraction, as well as farming, conservation and cultural investments in peatlands. In 2011 Bord na Móna published a *Strategic Framework for the Future Use of Peatlands* and in 2015 the first *National Peatlands Strategy* was released. In 2016 the *Living Bog* project supported by EU Life began and it concludes in 2020. It brought state of the art science and restoration techniques to twelve raised bogs in Ireland, six in Offaly County; where some of the most important work on raised bogland in Europe has occurred over the past fifty years.

The glaciers delivered the form that captured water. This water, in turn, attracted living things and the natural process of repeating cycles of life, death and regeneration that would result in the spectacular raised boglands²⁷ of the Irish Midlands.

What is raised bogland? It is an ancient lake filled with peat²⁸, plant forms that never fully decayed. Mosses, sedges, shrubs and even trees could fall into and be buried in the spongy peat where they were held in stasis by a deep wet (natural) acidic condition that lacks oxygen. In a raised bog sphagnum mosses accumulates above and beyond the rim of the lakebed and its groundwater contact, sustained from that point forward by being wet from above by rain, Plants, growing on the decay of previous generations, would extend towards the light. Raised bogs are living things composed of a diversity of mosses, sedges and dwarf shrubs that rise with a central dome that can be 15-20 metres above the maximum high-water line of the original lake basin. They are typically treeless. Sphagnum, in both its living and dead states, can hold up to twenty times its dry weight in water. They reproduce by an effective pressurised (popgun) release of spores which are then distributed by the wind.

Reclaiming an Idea.

Peat has been central to the hearth and home of Irish people for centuries. However, it wasn't until the twentieth century that the spectacular raised bogs of central Ireland were systematically harvested through an array of industrial practices. Where once they had been a material condition of life, they become, for over fifty years, an essential asset of the capitalist state. Peat was the raw material for national energy independence and economic productivity. The industrial harvest produced vast landscapes of cutaway peat, the culmination of industrial production with a subsequent loss of employment and nullification of asset value.

In 1951 at Pollagh Bog in Offaly County, Professor John Moore²⁹ had discovered the Rannoch rush³⁰ (*Scheuchzaria palustris*) and wintergreen (*Pyrola secunda*). Moore undertook an ecological study of the only Irish station of these rare species, but despite his opposition the site was destroyed for turf development.

Foss and O'Connell, 1997, p.193.

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The idea, in the early twentieth century, of using industrial technologies to reclaim bogs from a condition of barely productive wastelands would be turned on its head fifty years later when Bord na Móna struggled with what to do with cutaway peatlands, the perceived wasteland by product of the industrial harvest. Reclamation ideals and the promise of future assets drove a series of experiments focused on reclaiming agriculture uses from the land that remained. Cutaway peatlands dominated a landscape interspersed with cutover peat, bog remnants, fragments of wetlands, woodlands and industrial workshops, all of which were linked by the rail lines used to transport peat. It was a vast infrastructure designed to drain, dry, harvest, refine, transport and burn extreme quantities of peat in power plants constructed for that purpose. It was initially expected that the post peat condition was a landscape of opportunity where agricultural

For the rest of this section boglands will be used as the primary term as it suggests a wet ecology, a diverse community of living organisms where peatlands seem to be used more often as a means of defining the material element of these ecosystems with the most value. However there will be reference to reports by the national government and Bord na Móna which retain the use of 'peatlands'.

Healthy peatbogs are composed of 80-90% water.

A noted botanist, working at University College, Dublin at the time.

³⁰ Only found in pools of ancient undisturbed sphagnum bogs such as Rannoch Moor in Scotland.

and forestry land would emerge with a bit of hard work. The industrial infrastructure would support new commercial developments: trees would be cultivated, vegetables and grains would be grown, and livestock would thrive on what would become good grassland. However, crop trials were run in the 1970s and 1980s with limited success. Lough Boora bogs required pumps to remove the water. When the loss of peat income meant the pumps were turned off, the land began to flood again. Agriculture and silviculture would not be commercially sustainable here, although some of the cutaway land on higher ground was developed successfully and sold to local farmers. "In terms of rehabilitation and environmental stabilisation of the cutaway bogs, natural colonisation is viewed as the most sustainable option" (Bord na Móna, 2010, pp. 11–13).

Ecological rehabilitation, which had begun a process of rewetting, natural colonisation and emergent biodiversity, had captured the attention of the land use management team at Bord na Móna. New rehabilitation tools were on the rise; hydrological management included the blocking of the intricate fieldwork that drained the bogs in the first place. Significant drainage outfalls were dammed again creating the Turraun Wetlands and the Finnamore Lakes in Lough Boora. Planting and the addition of fertilisers were tested, but natural colonisation proved to be the most effective. "Long-term fertiliser use is not considered as a desirable or sustainable management system" (Bord na Móna, 2010, p. 30). Reedbeds using rhizomes planted just before rewetting showed some promise. Grazing was used as a means of controlling emergent scrub in order to maintain specific habitat and biodiversity values. Substrate disturbance proved productive for habitat creation where bare cutover peat dominated the land. Managing woodland for volunteer species and some planting and fertilising of native oak and Scots Pine were underway with fencing protecting them from rabbits and deer. However, it was the natural processes that showed the most success. "The best examples that demonstrate the use of these rehabilitation tools within the Bord na Móna bogs.... Are the rehabilitation works carried out at the Lough Boora Parklands in Offaly County" (Bord na Móna, 2010, p. 29). This is a potent narrative that contrasts with the presentation in the draft Lough Boora Discovery Park Tourism Plan of the industrial heritage, tools and technologies of industrial peat harvest being the focal point of the museum. Here, in counterpoint, is the case for the reader to consider the landscape as the museum. Public engagement would be designed around a living, evolving narrative of natural rehabilitation at Lough Boora.

... The Lough Boora Parklands is a focal area for showcasing different types of after-use cutaway bogs, it also represents an extensive area of space with which habitats and species have taken over from the former industrial peat production landscape.

Bord na Móna, 2010, p.32.

Rehabilitating Ideas.

It has been stated previously that peatlands were thought of as wastelands which would be put to 'good use' if possible. Offaly County has the second most extensive area of raised bog in Ireland. The region had a history of experimental industrial development of new tools and technologies to harvest and make best use of peat. All of the significant large raised bogs would have been developed by Bord na Móna to feed four power stations and two briquette factories. From the 1930s through the 1960s, the general thought was that conserving a valuable fuel resource was pointless. Conversely the region is now home to a significant number of soon to be abandoned cutaway peatlands. It also is home to the largest remaining example of a 'true Midlands raised bog' at Clara. Furthermore "The three raised bog nature reserves³¹ in the country [at the time] all occur in Offaly" (Cross, 1990, p. 80). The team's focus is to discuss the rehabilitation of the idea of post-industrial bogland and peat landscapes as 'things' of value that transcends the resource and utility-based interests of a previous generation. Before one could imagine a better state for cutaway peatlands, there had to be an impetus to rethink the idea that they were wastelands. A conceptual rehabilitation would precede the actual on the ground rehabilitation of cutaway peatland. The European Conservation Year occurred in 1970³²;

³¹ Clara, Mongan and Raheenmore were all established in 1987.

³² Ireland would not join the EU until 1973.

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it was the first significant impetus to think about bogland as something other than fuel captured from wasteland. In response to the European initiative Bord na Móna, An Taisce and the Forest and Wildlife Service would set aside several sites as future national nature reserves "...e.g. Raheenmore and Mongan Bogs, Co. Offaly, Pettigo Plateau, Co. Donegal" (Cross, 1990, p. xiii). According to that report these sites were selected in a cursory manner with a proper study to follow. However it was a starting point. The impetus for the work that followed is attributed to the Bord na Móna Scientific Officer T.A. Barry, who promoted a decision to conserve Raheenmore bog at that time (Bord na Móna 1996, pp.28-29). Raheenmore is a small raised bog, with an obvious dome, recognised for its significant depth. Setting aside 190ha at Raheenmore, however, was modest compared to the full extent of potential conservation sites in Offaly County. There would be a significant decline in the number of bogs that had restoration potential between 1974 and 1987. The 'Third Development Programme' the Bord na Móna response to the Arab Oil Embargo had a negative impact on potential conservation sites. Extrapolating from the 1990 report The Raised Bogs of Ireland: Their Ecology, Status and Conservation, it is clear that of the 7,875ha identified in Offaly County as quality raised boglands with significant conservation value in 1974, 61% of these potential conservation sites were lost to peat energy production by 1987 (Cross, 1990, pp. 46-53).

It is interesting to note that in 1974 the government of the Netherlands had begun to take notice of their own significant loss of peatland reserves. They established, in 1974, the first *Peatland Conservation Plan* to inventory, purchase and restore hydrological function, and manage peatlands for the long term. This was the background for the research being conducted in Ireland by Matthijs Schouten, a young researcher from the Netherlands. While he was well aware of the conditions in his own country, he was shocked by the relentless destruction of boglands in Ireland. It is believed that his research team decided to travel to the monastic site of Clonmacnoise in order to recharge their spirits. On their way they were surprised to discover a remnant bog that was not on their initial maps.

What we found was the most beautiful bog that we had ever seen up to then. Never before had we seen such magnificent pool systems, such splendid Sphagnum lawns and hummocks; never before had we walked a bog that was so difficult to cross due to its wetness. We did not reach Clonmacnoise that day...

The Living Bog, 2020, pp. Saving Mongan.

The Irish Peat Council (2020) documents the impact of that experience and its outcome. Matthijs Schouten's 1978 experience resulted in a passionate conversation between Dr Schouten and the noted Dublin Botanist Prof. John Moore who had the gravitas and relationships to advocate for Mongan bog. Bord na Móna had just inserted drains at both ends of the bog in preparation for the drying that would lead to harvest. Subsequently, with full support of all involved, a land swap was arranged with Bord na Móna transferring the central area of the raised bog to An Taisce the National Trust for Ireland. Securing Mongan bog for the future would inspire Dr Schouten who returned to the Netherlands. By 1983 he would work with others to establish Stichting tot Behoud van de Ierse Venen (Dutch Foundation for the Conservation of Irish Bogs). Raising both consciousness and funds, the group would sponsor an art exhibition, a ballet, an anthology of literature and sell symbolic shares in Irish Peatlands. The Stichting/Foundation would eventually purchase three peatlands in Ireland (in Westmeath, Galway and Kerry) which were then handed back to Ireland as a gift to be conserved in perpetuity. In 1987 the Dutch and Irish Government agreed to cooperate on the study of peatland management and restoration. Raheenmore bog and Clara Bog were the focal points of that work. The Stichting maintains a study fund for conservation of Irish bogs to this day.

No completely intact raised bogs remain. Cross, 1990, p. x.

A significant shift in thinking occurred in a 1990 report on The Raised Bogs of Ireland: their ecology, status and conservation. In that the authors offered a serious, overarching analysis of all of the remaining raised boglands in Ireland after decades of harvest. The report established a scientific baseline for comparing raised bogs, considered the 'why' and 'how' of conservation, then drew conclusions and recommendations. Some of the key points of the study were: When all 141 remnant sites were considered, most had been drained to facilitate peat harvest; less than 4% had the extensive wet areas that would initiate scientific interest. All the intact raised bogs that had survived were less than 200ha. Yet what remained were the "... finest examples of their type in Europe, probably in the world." They held a unique repository of information about past climates and vegetation; they were a valuable genetic resource. "They were a unique feature of the Irish Landscape of considerable tourist value" (Cross, 1990, p. x). In the shadow of the state-sponsored peat industry, some opportunities needed both careful consideration and swift action. Could or would the internationally important remnant ecology of the raised bogs have any impact on the arts and culture, the day-to-day political life of Ireland? Was there something here that would inspire future generations? Later in the report J.R. Cross, a Trinity College botanist, stepped outside analytical methodologies to suggest that "the aesthetic and wilderness 'value' of raised bog landscapes provide the last remnant 'wilderness' in Ireland."

In *The Raised Bogs of Ireland* report some of Offaly County's boglands were identified for inclusion in a nature reserve network: "...All Saint's, Clara, Mongan, Blackcastle, Raheenmore and Sharavogue." At that time only Clara, Mongan and Raheenmore were owned by conservation organisations. Raised bogs listed for scientific interest in 1980 and subsequently harvested in Offaly County would include Ballycumber and the Derries in the Lough Boora complex (Cross, 1990, pp. 59-64). Part of the challenge of bog conservation is the mix of public and private ownership; while much bogland was owned by Bord na Móna there were often others who possessed an interest. Historic turbary rights had given individuals the right to cut peat for their own use. To conserve a bog requires control of all historic cutaway and adjacent farmland previously reclaimed, through drainage, from the bog

because there is a propensity for all low ground to flood when the bog is rewet. The 1990 study recognised that boglands and their hydrology are inextricably linked to other ecosystems. They are an upstream sink that slowly releases water, shaping the flow, chemistry, and biology of downstream streams, water bodies, and – ultimately – estuaries. They had an international role to play in terms of migrating birds. They were also recognised to be "an important sink for carbon and play an important role in buffering atmospheric carbon dioxide levels. This carbon is released into the atmosphere when the peat is burnt or oxidised by drying out" (Cross, 1990, p. 57). The report was farsighted in its recognition of aspects of ecosystem service values and, the now, all-important focus on carbon sequestration.

It not only reflected on the recent losses, but also charted the opportunities and potential going forward as thinking shifted towards a more robust understanding of the natural value of peatlands. The map on the next page is from the same report and shows the significance of Offaly County (second only to Galway) in terms of uncut peatlands. It also illustrates the dominance of Bord na Móna land ownership and responsibility within the region.

Conservation and Bog Restoration

The European Commission took action against Ireland in the 1990s for their lack of environmental impact assessment prior to ongoing large-scale industrial exploitation of peatlands. The first decade of the 21st century began with Ireland under increasing pressure from the EU Court of Justice for its management of peatland extraction and uneven record on bogland and biodiversity conservation. Paraphrasing from the 2015 National Peatlands Strategy: in 1999 there were issues with turf extraction, land reclamation for agricultural purposes, and afforestation. In 2001 notice was given for insufficient nomination of Special Areas of Conservation. In 2002 there were concerns with specific bird habitats. In 2008 there was a range of planning issues regarding the drainage of wetlands and environmental impact assessments for new wind farms. There were also ongoing issues with turf-extraction at Special Areas of Conservation and National Heritage Areas. (Department of Arts, Heritage and the Gaeltacht, 2015, p. 11).

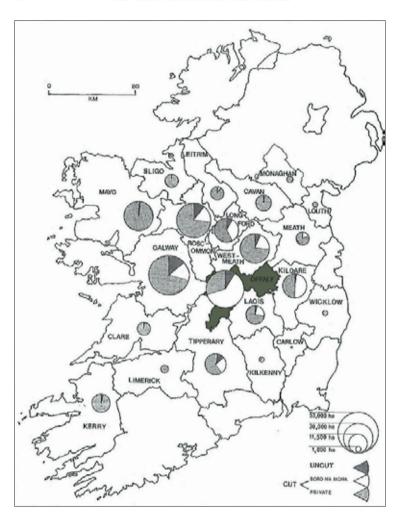


Figure 15: A map from the *Raised Bogs of Ireland* study that illustrates the significant amount of cutaway bog in Offaly County.

J. R. Cross, 1990 p. 48.

It wasn't until 2010 that Bord na Móna released a six-year *Biodiversity Action Plan*, followed by *A Strategic Framework for 'The Future Use of Peatlands* in 2011. *The National Peatlands Strategy*, published in 2015, in turn informed the 2016-2021 *Biodiversity Action Plan*. A mix of Irish national funding and EU monies funded *The Living Bog – Raised Bog Restoration Project* in 2016. It was managed by The National Parks and Wildlife Service and ran until 2020. Bord na Móna biodiversity and peatlands planning were reactive to compliance issues with EU laws. Focused on the business of peat, they retained an interest in both reclamation and the slow move towards restoration ideas and experimental practices. It was Gabriel D'Arcy, the CEO of Bord na Móna referred to earlier, who outlined the conditions and the future challenge in 2010.

Peat is a finite resource however and over the next 20 years or so it is envisaged that large areas of the operational Bord na Móna bogs will become exhausted of commercial peat while no new bogs will be brought into production. The most obvious question is what will happen to these extensive peat production areas when they are no longer required to produce peat? While this cannot be answered at this point for every one of these bogs, the company has started to plan for the post-operational phase.

Bord na Móna, 2010-2015, p. ii.

The Bord na Móna *Biodiversity Action Plan 2010-2015* was a rigorous, illustrated review of biodiversity studies and plans underway at that time on the Bord na Móna bogs. It contained biodiversity objectives, policies and a review of essential legislation. An assessment of biodiversity within the Bord na Móna land bank presented records on species, sites and habitat. It stated that despite extensive experiments to cultivate peatlands for trees, vegetables, grains, and grazing in the 1970s and 1980s there had been only limited success. Water levels in many of the cutover and cutaway bogs had risen, prohibiting plantation forestry and commercial crops. The future vision to rehabilitate and stabilise cutaway bog was understood to be a process of natural regeneration and colonisation and much of this was learned at Lough Boora. "Once an area of cutaway bog can be isolated from the peat production process. It has generally...reverted to some type of semi-natural

habitat and space for flora and fauna." The steady revegetation of cutaway through natural processes had become a key element in the stabilisation of cutaway peatfields and "... fundamental to the licensing requirements set out for the rehabilitation of cutaway bogs by the Environmental Protection Agency" of Ireland (Bord na Móna, 2010-2015, p. 15).

The practical rehabilitation of Bord na Móna boglands to meet regulatory standards and biodiversity would involve hydrological management, a process of rewetting and drain blocking. To produce wetlands and lakes additional excavation and cutaway were utilised. Planting and fertilisers were necessary to create a habitat for the grey partridge at Lough Boora. Reedbed creation was tested at Turraun. Substrate disturbance, grazing for scrub management and native woodland development were further researched and methods of biodiversity assessment and regulatory standards of management were further refined. A research study on peatlands as carbon sinks was initiated in 2008 and completed in 2010. The study sought to clarify the potential of rewetting cutover and cutaway peatlands.

Lough Boora Parklands is a focal area for showcasing different types of after-use of cutaway bogs, it also represents an extensive area of space within which habitats and species have taken over from the former industrial peat production landscape. This illustrates the power of natural colonisation to create biodiversity spaces ... The Lough Boora Parklands is still evolving...

Bord na Móna, 2010-2015, p. 32.

In 2011 Bord na Móna published *Strategic Framework for the Future Use of Peatlands*. It was a curious retrenchment as it moved away from biodiversity values and re-established the import of economic and utility value while taking into account the new focus on sustainable land use regulation. Paraphrasing from the statement of intent, peat production would continue to be driven by market demand and land use management would respond to infrastructure, industry needs and local planning, whilst also attending to all necessary environmental regulations, energy policies, and carbon management. The economic return to Bord na Móna and the state would in turn produce 'jobs and benefits to host areas' (Bord na Móna, 2011, p. 3).

A new Land Use Review System would take into account eight factors summarised here:

The first claimed that half the land held by Bord na Móna would be flooded and would undermine economically viable development options. The same constraints on development would hold for any land that was not completely cutaway; remnant peat was an issue.

The second factor was location and proximity to highways, electricity and gas grids versus rural areas with proximity to designated nature conservation and tourism.

The third concerned managing timescales. It presumed additional production shaped by market demand, peat harvest and its plodding relationship to weather and finally nature's ability to quickly recolonise cutaway negating future uses in the additional thirty years to 2040.

The fourth was the need for satisfactory return on the necessary investment to prepare land for alternative uses.

The fifth was concerned with using Bord na Móna land holdings to meet: national and regional needs for reservoirs and alternative power generation and industrial needs requiring isolation due to dangerous substances and the potential for catastrophic accidents.

The sixth was about meeting legal requirements regarding the decommissioning of industrial peat operations and leaving behind environmentally stable land.

The seventh recognised that national, regional and local planning primarily prioritised amenity, biodiversity, tourism and wind energy as the standards of reuse of cutaway bogs, with little recognition of other potential uses.

The eighth and final factor concerned attending to local considerations. Bord na Móna, 2011, p. 7.

The Strategic Framework for the Future Use of Peatlands report outlined an indicative future land use for the 80,000ha of the majority state-owned corporate holding that began with a quarter of the land bank already committed to a range of uses. Another quarter was committed to

biodiversity with a further quarter to wind and renewable power. There were smaller portions for industrial and commercial infrastructure, and forestry agriculture. The report did note that many of these land-use options were mutually compatible and could overlap. The final aspect of the report recognised the considerable research that Bord na Móna had established on cutaway bog. The examination of the potential for social, economic and environmental benefits from the great post-peat, bog estate had been underway for three decades or more. The scope and scale of the estate coupled with the current analysis of the wind regime indicated (at that time) significant potential for new development in wind power generation, storage, distribution and market development. Biomass, coniferous forestry, horticulture, grasslands, cereal crops, cranberries and blueberries had all proven either unviable or economically risky. Amenity and tourism were in the interest of local and regional bodies. The report referenced a feasibility study on ecotourism at Lough Boora completed before the publication of the Strategic Framework for the Future Use of Peatlands. The other area with the most potential was biodiversity and ecosystems services. The range of hydrological typologies, soil and water chemistry, as well as emergent ideas about hydrological rehabilitation and ecological restoration opened up the potential for the recovery of biodiversity and carbon sequestration. This reflected the emergence of radical changes to priorities at Bord na Móna. As the core business began to fail, as predicted, the corporate body was well aware of the limited life span of the finite resource. At the same time, the full potential of the vast post-peat land bank would be unlocked through this new land use planning and development review system. In pursuing that potential, "... Bord na Móna would seek to sustainably balance and optimise the commercial, social and environmental value of the resource" (Bord na Móna, 2011, p. 9). The challenge, of course, was the simple fact that the core asset, the resource the business was built upon, was already close to spent. Achieving economic growth through hydrological remediation, carbon management and biodiversity planning would be a very tall order. Amenity and tourism that focused on biodiversity and restored boglands was one possible angle; the rapid development of renewable energy systems to replace the loss of the peat fuel resource seemed to be the other.

By January 2011 Ireland was under notice by the European Commission to resolve industrial and turbary cutting and to repair damage to conservation areas. This involved Bord na Móna, the National Wetlands and Park Service, Coillte and private owner-operators as well. The Irish Government convened a 'Peatlands Council' in April 2011, bringing stakeholders together to oversee the development of a new peatlands strategy. A controversy regarding the enforcement of a prohibition on turf cutting on raised bogs set aside as Special Areas of Conservation was the socio-political driving force behind the development of the National Peatlands Strategy. The controversy began in 1999 when agreements were made to cease all turf extraction on 32 bogs deemed to be Special Areas of Conservation. There was another round of notices on 21 sites designated in 2002. Curiously the decision was quickly adjusted by politicians who deferred the need to take action. Industrial and turbary rights to harvest would not cease on the conservation bogs until 2009 and 2012. A significant battle ensued between the turbary rights holders, who organised under the banner of the Turfcutters and Contractors Association' established in 1989 to, "Defend the right of Irish People to cut their own turf, for their own use, on their own turf banks" (Lyderson, 2011). Financial compensation was offered, as well as the harvest alternative of sites not on raised bogs of conservation. However, the controversy raged. The deep-rooted tradition of hand cutting had been superseded by specialist contractors who could cut home heating blocks of peat at high speed. The reality was that bogs set aside for conservation were being destroyed. At the same time the rural / urban and class tensions embedded in the controversy stoked the appetite for media attention. Paddy Woodworth wrote, 'It will have taken more than fifteen years, in most cases, to move from deciding to conserve [raised] bogs to deciding, in agreement with affected parties, how this should be done" (Woodworth, 2013a, p. xx).

The turbary rights agreements were primarily verbal, a social contract based on years of use. Raised boglands could have hundreds of turbary rights which needed clarification and mitigation. At the same time as conservation interests advocated to rewet bogs and re-establish the conditions that would sequester carbon and support the living bog / biodiversity targets agreed with the European Union, the local turbary rights holders were cutting

open the edge of the bog, destabilising the hydrology and undermining the conservation goals.

Water, as any farmer knows, seeks its lowest point. Artist Deirdre O'Mahony was embedded in County Mayo with some of the affected farmers in 2011. She represented their points of view, often in their own words or in materials they had collected and which described their position.³³ The activism and conflict that surrounded this issue for over a decade underpins an idea shared by many that full engagement with the peat industry and turbary stakeholders should have been the first step in the Irish response to the EU Directive.

After the social and political controversies and the extensive attention of the EU Court of Justice in the first decade of the new century, the development of the *National Peatlands Strategy*³⁴ and its *Peatlands Council* stakeholder group was a welcome contribution to the socio-political discourse. In a Peatlands Forum the chair stated there had been a "...breakdown of communication." Much of this breakdown was tied to a decision to put a tenyear derogation, or partial repeal, of the orders. "The derogate allowed all parties to forget about the issues until the last minute" and initiated concerns about future orders and restrictions" (Bord na Móna, 2010-2015, p. 12).

In the *National Peatland Strategy*, published by the National Parks and Wildlife Service in 2015, Peat is a: "Sedentarily accumulated material consisting of at least 30% (dry mass) of dead organic material. A peatland is a geographical area (with or without vegetation) where peat soil occurs naturally (Department of Arts, Heritage and the Gaeltacht 2015, p. 71). Bogs are peatlands fed by precipitation and raised peatlands are similarly wet, shaped like a dome and occupy glacial lakebeds. Blanket bogs are shallower in depth, hugging the undulating landscape. With these definitions in mind the objectives of the strategy included a cohesive national approach to peatland planning and regulation. Ultimately the Strategy sought to ensure the 'most

appropriate use' of cutover and cutaway bogs. The shift in thinking can be characterised as moving from 'pure' economic consideration of peat as a utilitarian asset to be burned to produce energy towards a wider consideration of the value of bogs within a social, ecological and climate matrix. A set of peatland principles embraced all the stakeholder positions considered within an ecosystem services framework. These principles considered: what was produced, regulated or mitigated onsite; how peatlands supported the quality of air, water or other living things, and the focal point of cultural engagement, the aesthetic, spiritual or physical interactions that lie beyond utility. The Strategy included principles for agriculture, horticulture, common-land, energy and forestry. It considered industrial cutover peatlands as well as formerly forested (recently harvested) peatland. The Strategy meant that Bord na Móna could not open up new bogs for peat production and had to protect existing properties with biodiversity value or priority habitats. Where it was natural for Bord na Móna cutaway to flood, this was permitted. Any consideration of appropriate use had to ensure " ... where possible a return to natural functioning peatland ecosystem" (Department of Arts Heritage and the Gaeltacht, 2015, pp. 24-32).

Natural (i.e. undrained) peatlands are active sinks absorbing (sequestering) carbon dioxide from the atmosphere. Undisturbed peatlands store enormous quantities of carbon. It is estimated that Irish peatlands store 1600 million tonnes of carbon. This is about 64% of the total soil organic carbon stock present in Ireland.

Department of Arts, Heritage and the Gaeltacht, 2015, p. 34.

On peatlands and climate change mitigation and adaptation the strategy referred to the fact that "...carbon dioxide is constantly emitted to the atmosphere from drained peatland." As a result there is a need for restoration of peatlands, the rewetting of non-designated peatlands to stop carbon loss. "The immediate priority will be to address research requirements in relation to rehabilitation, restoration and enhancement... information required to support the development of an informed policy position" (Department of Arts, Heritage and the Gaeltacht, 2015, p. 33). This principle brought Ireland in line with the United Nations frameworks on climate change and biodiversity and helped ensure that Ireland contributed to EU greenhouse

In the final section we will consider Deirdre O'Mahony's research, artwork and exhibitions that looked at T.U.R.F. or Transitional Understanding of Rural Futures. https://deirdre-omahony.ie/works-and-projects/42-artworks/2000-s/67-turf.html

³⁴ Completed in 2015.

Ecology | Context

gas objectives and the National Policies on climate and low carbon development.

The *National Peatlands Strategy* stated that Bord na Móna had tested a wide range of agriculture and forestry approaches to reclaiming essential economic and utilitarian value on cutaway peatlands. The future of Ireland's peatlands under the management of the majority-state-owned body was to embrace traditional and renewable energy, with land for infrastructure and industry, recreation and amenity, and adhering to national biodiversity targets. It felt that public awareness and education about the complexities of peat and living bog in the 20th and 21st century were a priority. The *National Peatlands Strategy* ended with a very specific final recommendation: to create a *National Peatlands Park*. "This proposed park could provide an opportunity to develop a centre of excellence for applied integrated peatland research ..." (Department of Arts, Heritage and the Gaeltacht, 2015, p. 50).

Bord na Móna controlled 80,000ha or 300 square miles of land in Ireland and had rehabilitated as much at 10,000ha of drained raised bog in the Midlands. "Within these rehabilitated areas natural colonisation coupled with targeted rehabilitation (drain-blocking, damn building) of former bare peat production areas results in a rich mosaic of semi-natural habitats including open water, poor fen, rich fen, scrub grassland and heathland. This mosaic development is demonstrated on a large scale at the Lough Boora Parkland in County Offaly" (Department of Arts, Heritage and the Gaeltacht, 2015, p. 50). Talking with Catherine Farrell about the *National Peatlands Strategy*, she suggested that it is time to revisit it and think about the long-term ideals and the highest and best response to regulatory initiatives. To the best of her knowledge, no such plan is in place at this time.

The National Peatlands Strategy was written in response to a need to have some structured thinking in place about peatlands in Ireland. It was largely a reaction to the need to conserve the Natura 2000 sites (given their ongoing and continued degradation despite designation at the time of writing in 2012 / 2013). That strategy is in urgent need of updating - we need a roadmap to set out how we will invest in the Irish peatlands to stop their ongoing carbon and peat soil loss, and disservices with regard

to water, climate, habitat and ultimately people. Mapping the extent, condition and critical areas for investment (rehabilitation / restoration) are the first steps. This will avoid inefficient use of funds on small scale, expensive projects. It would allow for the development of work that will be effective in bringing wider benefits. Integrated land use planning with support from agriculture forestry and water supply agencies along with NPWS and EPA would be a fundamental part of that.

Catherine Farrell, 2020 Feb 10.

The foreword of the Bord na Móna *Biodiversity Action Plan 2016-2021* was written by Mike Quinn, CEO of Bord na Móna (2015-18), he replaced Gabriel D'Arcy.

The Biodiversity Action Plan 2016-2021 is an essential component of Bord na Móna's sustainability strategy which stands on the three pillars of people, profit and planet. This means whenever we are developing or delivering business solutions we insure they are supported by all three sustainability pillars.

Bord na Móna, 2015, p. 1

Mike Quinn presented the realities of upgrading cutaway bogland. describing Bord na Móna as an 'iconic State-owned company' he claimed the charge was to benefit everyone in Ireland. Accepting the role of a community company he sought to benefit people locally. He understood that delivering benefits from an estate of cutaway bogs would "...require patient work, significant investment and expertise to build this future over the 2030 and beyond" (Bord na Móna, 2015, p. 1). By 2017 he would leave Bord na Móna to take up a role as head of Ervia, the semi-state multi-utility company responsible for the delivery of Ireland's national gas and water infrastructure and services. Tom Donnellan was appointed the new Managing Director in 2018.

The Bord na Móna *Biodiversity Action Plan 2016-2021* was a notable shift from the previous one. It described a rigorous new computer mapping, geo-location approach to ecology, hydrology and biodiversity assessment, used to both locate and better understand the complexities of cutover cutaway bog. The ecologists had begun to establish a rigorous mapped

database that would provide a better grasp of the cause and effect, the future prediction and potential efficacy of post-peat rehabilitation and restoration. While retaining a practical focus, it is clear that carbon storage, sequestration and biodiversity improvements were the targets for rehabilitation. The new computer-based systems would support restoration and monitoring at all scales. In Offaly County, Bord na Móna had been focused on significant rehabilitation. Extrapolating from the reports, sites in 2010 and 2015 would total 225ha, including: Cavemount, Mountlucas, Rathvilla, Derryhinch, Cloonroosk, Ballycon, Boora, Drumman, Drinagh and Bunahinly. Prior to 2009 rehabilitation would occur on 2200ha's at Lough Boora, Loch Clochan, Finnamore Wetlands, Lough Boora Lakes, Leabeg Wetlands, Tumduff Wetlands, Drinagh Lake and wetlands, Derries wetlands, Clongawney, South Boora wetlands, Derryounce, Clonfinlough, Killaun, Lullymore, Ballycon wetlands. (Bord na Móna, 2015, pp. 33-41). The report outlined the triggers and process that initiate rehabilitation planning, as well as a renewed focus on the restoring the carbon sequestration function. There were new monitoring projects and a planned partnership with Trinity College Dublin, on *The* Framework for the Restoration of Irish Peatlands. This biodiversity action plan closed with the following idea; it is reminiscent of the extant spirit and the potential the team found in Offaly County in 2019 and links well with the section to follow.

With all the knowledge and experience built up since the 1990s, [Bord na Móna] is now a major driver in terms of peatland rehabilitation and restoration, and in valuing natural capital. As the company switches progressively to renewable energy, the need for the intensive and industrial production of peat will steadily decline. This will result in a significant land use change in Ireland, in both local and national terms. As soon as peat production stops in an area, natural processes coupled with targeted rehabilitation and informed management, work to transform the former bare peat to a rich tapestry of habitats. These areas can progress relatively quickly towards valuable assets for Ireland with multiple potential uses – habitats for species marginalised in the Irish landscape today, carbon stores and sinks to help reduce and offset national carbon emissions, space for renewable energy projects and niche commercial opportunities, rich cultural landscapes for artists and

observers to be inspired and to create, and a platform for amenity and tourism facilities for people to enjoy these new landscapes. The Green Infrastructure will provide a lifeline for many critically endangered and vulnerable habitats and species, and provide mutual benefits for the people using these wonderfully biodiverse areas.

Bord na Móna, 2016, p. 74.

The previous section on rehabilitating peatlands ended with an overview of the work done and recorded in the 1990 report on The Raised Bogs of *Ireland: their ecology, status and conservation.* This was a significant effort to identify and assess all of the raised bogs of Ireland that had 'signs of life' and, in turn, potential to be conserved and / or restored. This section on conservation and bog restoration began with the transition into long-term conservation and restoration. The new millennium opened with the EU pressuring Ireland to embrace environmental standards and management targets for bogland conservation and peatland development. In the second decade Bord na Móna would publish A Strategic Framework for The Future Use of Peatlands which was then complemented by Biodiversity Action Plans for 2010-2015 and 2006-2021. What felt like a significant trajectory of changing ideas in 1999 would dissipate as the realities of a diminishing peat-fuel industry took hold. Despite decades of careful estimation and maximum peat projections, referenced in David Bellamy's excellent book on the Wild Boglands of Ireland in 1986, it wasn't until well into the second decade of the 21st century that a mix of Irish and EU resources would be brought to bear on proper restoration. On the next page are two maps that establish the significant scope, scale and density of reclamation and restoration sites in Offaly County. If there is a living museum of cause and effect and response to twentieth century utility harvest of peat, it is here.

Restoring Bogs and Regenerating Ecosystems.

A mix of Irish national funding and EU monies would fund The Living Bog – Raised Bog Restoration Project (2016-2020). The objective of this work was to induce a net increase in the total area of 12 of the 53 boglands identified as *special areas of conservation*. To understand why these conservation sites needed attention, the team considered *Best Practices in Raised Bog*

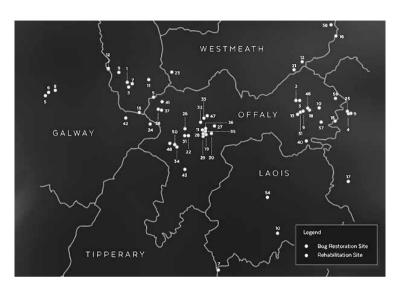


Figure 16: A map illustrating the fact that Offaly County has the largest number of Bord na Móna peatland rehabilitation sites in Ireland.

Bord na Móna Biodiversity Action Plan 2016-2021, p. 41.



Figure 17: A map illustrating the fact that Offaly County has six of the twelve Living Bog Restoration Projects in Ireland. These are ancient boglands set aside for the benefit of future generations.

The Living Bog online, welcome page. Accessed 2020, Jan 7.

Restoration in Ireland: Irish Wildlife Manual No. 99 (2017). As described above, the 53 raised bogs were designated as Special Areas of Conservation between 1997 and 2002. Also as described above, the condition of these conserved bogs is deteriorating. This is best understood by reviewing the reports on The Status of EU Protected Habitats and Species in Ireland (2008, 2013 and 2019). In all three studies the status of Active Raised Bog and areas that have some restoration potential 'Degraded Raised Bog' are condition-listed as 'Bad and Deteriorating.' (This is the worst possible rating.) In the Foreword to the 2013 report Jimmy Deenihan T.D. Minister for Arts, Heritage and the Gaeltacht writes about making progress in the protection of bogs.

However these bogs will continue to decline unless we repair and maintain them. Our vision is that these and other wetland habitats are restored to fully functioning ecosystems providing a home for their unique biodiversity as well as capturing and storing atmospheric carbon.

NPWS, 2013, p. 5.

According to *Best Practices in Raised Bog Restoration in Ireland*, the new computer based topographic surveys make it possible to look at each bog and run various models that clarify which have the necessary conditions to support an active raised bog and which have the less advantageous conditions that led to a degraded raised bog. Actual restoration planning requires detailed ground-truthing of all conditions and assumptions. The general overview of measures to restore peat-forming conditions include: drain blocking to raise the water level; removal of trees and scrub, that might contribute to dewatering of the bog; installation of bunds or perimeter dams where traditional harvest has cut the edges away and as a result water drains off the bog; inoculation with sphagnum moss may be necessary in the case of some degraded raised bog; finally it may be necessary, in some cases, to excavate and rebuild the actual bog profile. In Making the *Black Deserts Bloom* Paddy Woodworth offers the following insights gained by the late Judit Kelemen who spent six years working on the restoration of Killyconny bog.

First Principle: You can't manage raised bog without getting it wetter. Second Principle: You can't flood another man's land, only your own.

Third Principle: You can't buy land without consent.

Fourth Principle: You have to buy all the area before you can flood any of it.

Fifth Principle: To get a bog wetter, first control water loss.

Sixth Principle: If you want water to dribble off a bog slowly, create a slope.

Seventh Principle: If this does not work add more water.

Woodworth, 2013, p. 370.

Woodworth interviewed the noted Irish Ecologist Catherine Farrell when she was still working with Bord na Móna. She was optimistic then and remains so. Catherine is now a freelance ecologist with a research appointment at Trinity College Dublin working on the Irish National Capital Accounting for Sustainable Ecosystems project (INCASE). She is clear that there is more money for restoration ecology in Ireland than there has ever been in the past. There is more science about the complex relationships between ecology, hydrology and the carbon exchange conditions of boglands. She makes a key point about the ideals of restoration and the hope that is embedded in natural regeneration "... you cannot put back the bogs that you should have preserved. There is a role for restoration and rehabilitation" (Woodworth, 2013, p.360).

The team spent time with Catherine Farrell, walking Clara bog in the rain. She is a scientist who speaks about bogs with a passion, a touch of poetry and a meaningful brevity. She talks about the complex movement of water, a pattern throughout and deep within the bog of which the team has little technical knowledge. She discourses on: the range of sphagnum and other plants that change with the micro-habitat conditions found on a bog; the need for a better understanding of gas exchange and the seeds and spores that are borne by the wind; the aspects of regenerative potential that are dynamic and flow patterns that are hard to quantify. She is quite honest about the reality of the challenge, the diversity that is found across all the raised bogs in terms of soils, hydrology, chemistry and biology and the simple fact that when humans are working at their best capacities as restorationists the bogs still respond in unexpected ways. Outcomes do not always follow the theoretical models.

Conclusion.

Western Offaly County has the best mix of living raised bogs in the country. The area continues to be the focus of world-class conservation and restoration efforts. The Lough Boora complex and Blackwater complex are significant landscape-scale collections of cutover and cutaway bog, much of which has been the focus of reclamation schemes that work to rewet the peat with significant habitat and carbon sequestration benefits. The future of Bord na Móna has been stated and restated, tested and refined over the past thirty years. The post-industrial condition is one of nature rather than resource; it is biodiversity rather than agriculture. Offaly County is home to the most significant conserved, restored and rehabilitated raised bogs in the country.

In the 1950's Pollagh Bog was discovered to hold the last extant examples of Rannoch rush. It was destroyed for turf development. The 1960s were all about the industrial harvest of peat, while the need for a national fuel source was exacerbated by the oil embargos in the 1970s. Ireland would be energy independent through bigger, better and faster harvest of peat. In the 1980s researchers from the Netherlands helped Ireland to 'see' the value of conserving boglands. In the 1990s conservation plans indicated the need to set aside significant areas to prevent further damage. By the start of the 21st century the European Union intervened as living bogs continue to be lost. By 2010 there was serious work underway as Bord na Móna focused on the biodiversity and carbon sequestration value of living bogs. However, the ideal was always bracketed by practical, commercial needs of the state-owned corporate body. More recently a rapid development of sustainable energy systems to be located on cutaway fields, that have been rewet for carbon sequestration are touted as the solution to the loss of peat fuel. Amenity and tourism that takes best advantage of the great estate for the greatest good of human and non-human interests would be the other significant area of development.

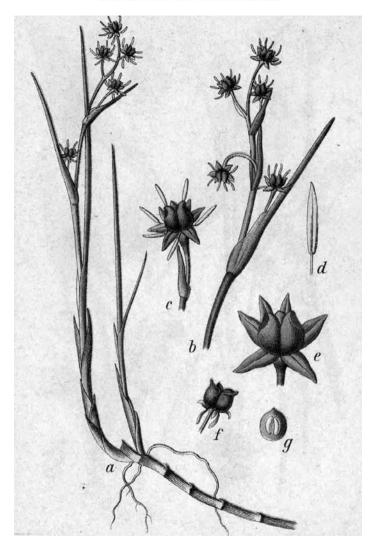


Figure 18: Rannoch rush, *Scheuchzeria palustris*.

Image Credit: Jacob Sturm (1796), Wikimedia Commons, Public Domain.

The creation of a National Peatland Park, pushed forward by local communities, deserves serious consideration and commands a degree of support from the Government. This proposed park could provide an opportunity to develop a centre of excellence for applied integrated peatland research and a national database for peatland related data and information as well as communicating information regarding peatlands. Department of Arts, Heritage and the Gaeltacht, 2015, p. 50.

DEEP MAPPING LOUGH BOORA SCULPTURE PARK



Figure 19: *The High Altitude Bioprospecting (HAB) team launching the helikite*, to explore microorganisms that might be found in the extreme conditions of the sub-arctic atmosphere. Work conducted at the 2019 'Field-Notes: The Heavens Residency' organised by the BioArt Society, Kilpisjärvi Biological Station, Finland, 2019.

With Till Bovermann sound artist, Melissa Grant biochemist, Hannah Imlach visual artist, Oliver de Peyer lab automation, Heidi Pietarinen Prof textile design, Noora Sandgren artisteducator, Anne Yoncha bio-data sonification and representation.

Photo Credit: Hannah Imlach, 2019.

This section is informed by conversations with Seamus Barron, Michael Bulfin, Alex Copland, Anna-Marie Curry, Sean Craven, Georg Dietzler, Tom Egan, Dave Fallon, Catherine Farrell, Chris Fremantle, Michele Horrigan, Hannah Imlach, Linda Kelly, Sean Lynch, Christine Mackey, Dave McAllister, Mark McCorry, Ruairí Ó Cuív, Sally O'Leary, Deirdre O'Mahony, Sean O'Reilly, Sinead O'Reilly, Amanda Pedlow, Sam Trotman, Nuno Sacramento, Sylvia Sweeney, Paddy Woodworth, Frank Heslin, Stuart Conaty and Denise Reddy.

Art | Society | Environment

This final section focuses on ideas and questions that might inform an interdisciplinary approach to the Arts, Ecology, Biodiversity, Society and the Environment at Lough Boora Discovery Park. This approach was discussed and confirmed by participants at an interdisciplinary workshop³⁵ on November 29th, 2019. On the following pages various vision statements are reviewed and examined. A series of institutional models are considered alongside examples of artwork and ideas about environmental art working that could be used to inform a discussion between potential partners about the form and function of a future-facing arts and ecology programme.

To get to this point this team has used a 'deep mapping' methodology, to understand boglands as both fuel resource and recovering nature. They have considered how ideas about land shape perception, meaning and value and how bogland became a transactional object or the embodiment of an idea. The Irish boglands have moved, in less than 100 years, from being a ubiquitous condition of Irish life, to wasteland, to resource, to carbon sink and valuable habitat. This is a breath-taking churn of ideas, social values

and economic relationships. With each phase there has been an upheaval: a radical shift in economy, society and culture; in day to day practices, and relationships to the land.

Review.

The intention of the Lough Boora 'deep mapping' process was to reveal opportunities and challenges related to the Lough Boora Discovery Park and Sculpture Park. The goal in the section on **Historic Context** was to lay out the full scope of history with a focus on the evolution of ideas and the experimental methods, tools and technologies that were developed, revealing the scope of change the industrial peat economy brought to Western Offaly County, prior to the focus on reclamation. The narrative of reclamation started with agriculture and forestry before developing narratives of public space, recreation, tourism and amenity. In the time provided by the push toward amenity, regeneration took hold in surprising ways leading to a sense of an emergent Irish wilderness.

Sculpture | Parklands interrogated the last two decades of artist involvement at Lough Boora. It considered both the achievements of the active phase between 2002 and 2010 and the challenges in the second decade as the partnership struggled to be productive. The Sculpture Park's particular gravitas came from the industrial materials and scale of work produced as artists were embedded with the Bord na Móna engineering and maintenance team during the seminars. While Kevin O'Dwyer's curatorial strategy was successful for almost a decade, the partnerships that were essential for delivering that work and maintaining it over the long term were somewhat less so. The effort to maintain and develop the Sculpture Park was compared to similar efforts on the North Mayo Sculpture Trail in County Mayo that began a decade earlier. In both projects artworks were central to a new idea about the form and function of public space. The artists working within communities contributed, in addition to artworks, intellectual content to landscape decision-making.

Ecology | Context looked at movements in the meaning and value of the peat resource / cutaway peat, which was in tension with living bogland. The narrative began in Pollagh in 1951 then quickened over the last thirty years, focusing on the remnant areas of raised bog and the interested parties who

were either trying to conserve them or trying to protect their interest in harvesting them. More recently there was significant interest and support for work that seeks to restore and regenerate the highest quality bog ecosystems. Another development was the move to restore baseline ecosystem service functions (carbon sequestration and biodiversity) to cutaway peatlands. The opportunity embedded in this is a repeated call for a national scale programme, based on the fact that western Offaly County has the greatest number of cutaway peatlands and conserved raised bogs in the country. With the end of the peat harvest in 2020 and the move toward renewable energy systems and a range of landscape development, there is significant scope for a research development approach to eco-cultural heritage in Offaly County.

Art | Society | Environment.

The first generation of Sculpture Park artists gave form to the industrial past. Artists today struggle with ecology and society: environmental change and a shift in vision, values, science, technology and ideas about nature and our place in this world. More locally in western Offaly County and Lough Boora in particular the challenge is about bogland values (natural and ecosystem services) in a sea of cutaway peatland. The by-product of the peat-mining operation is a landscape as disturbed as any strip mine. The vast estate of cutaway is an ecologically and hydrologically disturbed land where the responsibilities and targets for social economic reclamation of amenity; rehabilitation of specific ecosystems services such as carbon sequestration, biodiversity, and perhaps water quality, plus utility value are all regulated.

In conversations with some of the ecologists the team inferred that regulations around recreation, amenity and tourism are less clearly defined and open to amendment. They suggested that if there were advocacy for specific cultural elements of amenity-based public space, it is an interest that might be embraced in formal regulatory oversight by the Environmental Protection Agency (EPA). There has been a thirty-year period of discussion about the policies and regulations regarding the restoration of healthy, living boglands that escaped the mining operation but the responsibility for the costs of restoration, where there is need, is not always clear. Nationally the focus is on Bord na Móna's move from peat-fuel into renewable energies

and multi-use landscape. The relative flexibility about future land use will, in some ways, be dictated by the economics of renewable energy and how it measures against the financial needs of Bord na Móna. Ireland has the wind potential and industrial capacity for capture, storage and transmission. They broke ground in Offaly County in 2019 on large battery storage facilities which would ensure the efficacy of renewables where production is not in sync with demand.

The 21st century is about global carbon strategies and new relationships with nature. It is about a constant tension between day-to-day local experience, national interests, EU regulations and global policies. Moral principles are in flux because they must serve global future conditions and present local interest at the same time. Renewable energy, generative and restorative ecologies are occurring in the present and a renaissance in public space and public access to land is the future. The question is what is the role of the arts in a time like this; and can they make a small contribution to the public discourse about these potentialities in Western Offaly County?

The artists Newton Harrison and his late wife and collaborator Helen Mayer Harrison claim the first question is, 'How big is here?' The team would refine this by asking, 'how big is too big, how small is not big enough?' This section attempts to outline optional ways forward for a post-peatextraction arts and culture initiative. The Sculpture Park within Lough Boora Discovery Park is linked to the Boora complex which has a landscape ecology relationship to the Blackwater bog complex as well as to the six raised bog conservation areas in western Offaly County. The extant work at Lough Boora Sculpture Park is of a significant scale and proximity allowing visitors to appreciate they are in a landscape art space. In comparison, the North Mayo Art Trail relies on works placed over a 100km stretch of coastline, an arts and heritage network for those with the time and inclination to seek out that body of work. Western Offaly County is roughly 40km x 40km measured east-west from Tullamore to Clonmacnoise and north-west from Clara to Birr. The Boora bogs are 15km x 15km measured from Blue Ball to Cloghan and Pollagh to Kilcormac. Lough Boora Discovery Park is perhaps 3km x 3km. Just about any arts-based effort could be developed and realised on the Lough Boora site. It is only when you start to integrate ecology and its relationship to a modern narrative of integrated nature-culture heritage into the question that the full scope of cutaway peatlands and living boglands of western Offaly County demand attention.

Artists are funded to think and act in terms of weeks or perhaps a few months of effort. When industrial extraction of peat for energy production comes to an end, should the time frames and expectations be changed when artists or artists and scientists are asked to engage? Is it worth sitting down with a mixed group of artists, academics, and experts in relevant fields to talk about interdisciplinarity, to see if there are any research questions that could be answered within the complex bog landscape that is unique to Offaly County? The Sculpture Park as it is currently realised attests to the benefit of artist's engagement with the material culture of peat extraction. Is there any benefit to onsite research fellowships that engage the future conditions of post-peat landscape? The final questions are about how the social, cultural and political interests of Ireland and Offaly County are best served? When the industrial economy of peat extraction ends, how will Kilcormac, Ferbane and Tullamore benefit from cultural investment? Are these considerations too practical?

There are lots of questions that emerged in conversations: What resources and partnerships could be brought together to enable opportunity in western Offaly County? What kind of relationships would support consideration of art and design and craft studios or an industrial-peat museum (as outlined in the Tourism report)? Could the vast extant facilities and offices at Lough Boora be put to good use as studios or artist-in-residence accommodation? Would it be more productive to link residencies to the villages? Does the brown to green focus on renewables provide a unique opportunity to create a green beacon? Europe's first entirely carbon-free artist workshop and studio complex? Could there be a development of small huts throughout the Boora complex to open up contemplative access for poets and writers? Perhaps the development of artist live-work studios that would support artists and their families? Post-peat smallholdings could occur, small plots of land with access to shared workshops and a larger commons. Is there a

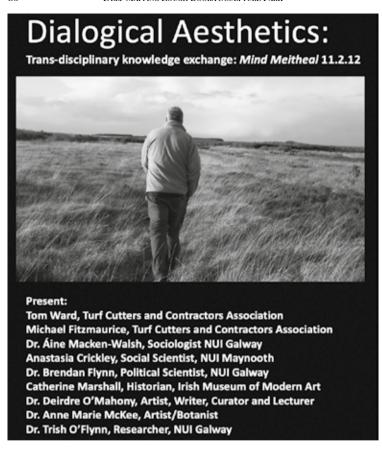


Figure 20: Deirdre O'Mahony, *T.U.R.F.* (*Transitional Understandings of Rural Futures*). "I devised a process called Mind Meitheal to create space for discussion amongst; local, academic, cultural and legal interests. The Turf Cutters Contractors Association (TCCA) wanted to discuss the conflicted consultation process regarding loss of turbary rights to Special Areas of Conservation in the run up to EU Natura 2000 legislation.

The T.U.R.F. archive includes films, interviews, reports and artworks reflecting the complexity of power relations between farmers, bog conservation, the Irish national regulators and EU policies. The body of work was exhibited in Ireland and the USA in 2012 and 2013.

Photo Credit: Deirdre O'Mahony, 2012.

public / private model that might serve a larger socio-ecological cultural aim? Or should the focus be on small scale arts and heritage interests?

Now that we are seeing the effects of climate change... the greatest challenge to the human and the non-human world, we need to imagine a way of being that re-thinks the idea of progress and development associated with the enlightenment (and in the present moment this is at its most dysfunctional) with the treatment of nature as an infinite resource for human consumption, and instead think about our relational interdependence and mutual precarity.

Dierdre O'Mahony, Oct 29, 2019.

Art and Ecology Visions.

Clarifying the scope and scale of an organisational vision is probably the important first step to development. There are three ways to think about an arts and ecology approach. This was also discussed at the workshop without any clear consensus, many felt the need for more information; others felt that elements from two or all three were relevant to a future vision.

A national initiative with significant regional focus.

An interdisciplinary initiative that looks to the arts to match extant expertise in Bord na Móna and the National Parks and Wildlife Service.

Working within existing boundaries building slowly by re-establishing past strengths and developing new arts and ecology opportunities.

As above these ideas are not mutually exclusive and may suggest an overlapping approach that could be most effective. The first is an initiative that requires champions who can garner political support to engage institutions and funding bodies in a discussion about a national park with an integrated arts, social science and ecology institute; a space that actively imagines and experiments with carbon, renewables and climate / landscape futures. Entities with an interest in landscape, ecology and social value include: Bord na Móna, Coillte the Environmental Protection Agency and the National Parks and Wildlife Service. They also have an invested interest

in the regulation and development of the future landscape in western Offaly County. Then there are the Irish funding bodies that support societal research and development. These would include: Arts Council Ireland; Creative Ireland, Heritage Council, Department of Culture, Heritage and Gaeltacht; the Higher Education Authority; the Science Foundation Ireland; the Sustainable Energy Authority of Ireland. It would only take a partnership across a few of these entities to enable a programme with significant impact.

The second arts and ecology option is about identifying interdisciplinary strengths and considering the opportunities as Bord na Móna downsizes its facilities. Some of the most interesting communities of third sector (non-profit) interests in the arts, environment and education have emerged in areas where vacant state properties and land have been transferred to entities specialising in creativity, education and innovation. The interdisciplinary opportunity is also considerable. There is current research and development in rehabilitation of ecosystem services and renewable energy systems on cutaway bogs at Bord na Móna and the final year of restoration work on the Living Bogs programme managed by the National Parks and Wildlife Service; the sensing systems are likely to be retained after that programme is complete. There is a broad and current dataset related to the post-harvest peatlands in terms of conservation and restoration mapping, and carbon, methane and hydrological sensing systems. There are visual artists and musicians with a significant interest in data sonification and visualisation. The challenge would be how to meaningfully engage institutional interests in art, design and social science in changes to landscape amenity, land restoration and public access supported by a bog dataset that is unique to western Offaly County.

The third arts and ecology option is about working within existing boundaries. A maintenance programme will stabilise the Sculpture Park. The next generation of artists and designers would work on the social, ethical and aesthetic issues of industrial peat harvest and post-harvest ecology and renewable technologies in order to reinvigorate the narrative. The development of socio-environmental artwork – temporary and permanent – would engage Lough Boora Discovery Park with its past and emergent land

/ industry / ecology heritage. The County Arts Officers and the Art Council of Ireland working from the current Memorandum of Agreement with Bord na Móna (the landowner) would re-establish the historic partnership and consider any emergent opportunities. It would be essential to reflect upon and consider some of the issues raised in the various reports and plans identified in the section on Sculpture | Parklands above.

Flexible spaces are preferable to buildings that require capital funding. A good partnership can't be pulled apart. Commission residencies by committee. Make the subject, the context, the criteria and decision-making process explicit. Decide if there is any measurable criteria, remain open to critical response, dialogue rather than voting, quality and originality, response to context, feasibility, consider innovation and unquantifiable ideals, consider that art and science need room to do their own thing.

Ruairí Ó Cuív, 2019, Nov 5.

Arts and Ecology Programming.

Once a post-extraction artists brief, which is both forward looking and engaged, is written, then the staffing, infrastructure and support systems needed should be considered:

What kind of socio-political networking would enable success?

How might an arts environmental arts, arts and ecology centre, residency or curatorial programme redefine the Sculpture Park?

What programme would ensure both local engagement as well as national and international impact?

Is an integration of art and science needed to enable the evolution of meaning achieved through arts practice?

How would funders support interdisciplinary working?

Could the arts work with cultural heritage and tourism funders?

Who would the audience be for rural arts and ecologies?

Art | Society | Environment

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Follow on questions included:

Which tools and technologies, buildings, residences and infrastructure could be assembled (or retained) onsite or in the midst of local villages to enable the new model?

Could new visions be fostered with arts and cultural funding alone? Are there any allies in other disciplines with a relationship with significant funders to engage in a dialogue about interdisciplinary futures?

Institutional Case Studies.

The team developed case studies to address the question raised by the Arts Council in our 'deep mapping' commissioning brief. The how and why, the methods and means that would allow "... artists to work in cross-disciplinary contexts within the arts, but also trans-disciplinary, across fields such as ecology, biodiversity and environmental issues." Working closely with Deirdre O'Mahony the team established the focus of the case studies and entered each meeting with an understanding of the scope of the work and interests of the individuals present.

The team prepared specific questions for curators and directors of arts organisations that embraced the idea that the changing environment is an essential topic for consideration by visual and performing artists, poets, philosophers and theorists. These questions focused on:

How the artist's brief, or curatorial statement might differ? Would it address the topic of environmental change in a direct manner?

What kind of infrastructure would be necessary for a socio-environmental approach? Was it a round of studios and workshops? Or if the focus should be more outward, then what material support would that require?

Finally, what social and professional networks might an organisation seek in order to support a 'more than one discipline' way of working? Or could an arts and ecology programme survive on artworld networks alone?

Askeaton Contemporary Arts.

Askeaton Contemporary Arts (ACA) is an ongoing project of Michele Horrigan (founder and curatorial director) who works with Sean Lynch. ACA has commissioned, produced and exhibited artists working in the small³⁶ town of Askeaton in North Limerick since 2006. The name of the town in Irish is *Eas Geitine*, the Waterfall of Géitine: it was built on the banks of the River Deele which flows north to the Shannon. The focal point of the town is the ruins of Castle Desmond, established in 1200 on an island in the river. The notorious Hell Fire Club³⁷ was established on the island in the 18th Century. To the northwest on the banks of the Shannon River, between Robertstown River and the mouth of Paularone creek, lies an island dominated by Rusal Aughinish Limited³⁸, an alumina refinery. It is the primary industrial / economic force in the region and was established at the height of the economy in 1982. Askeaton is south of the Shannon estuary on the R516 (Church Road). To the west is St Mary's church, to the north is an historic Franciscan Abbey and the Askeaton Town hall, to the east is the Askeaton football club. The city of Limerick is another 26km east.

ACA is a unique personal / public inquiry where Michele Horrigan produces a repeating summer programme 'Welcome to the Neighbourhood' which situates Irish and International artists within her hometown. Many artists work within the community in order to interrogate, reveal and engage the social, political and environmental conditions in the town in terms of both historic and contemporary experience. ACA works within a tradition of critical curatorial intent without a base of operations. There is no exhibition

³⁶ A rural area with a population of 1,137 people. For comparison Kilcormac has 900 and Ferbane a population of 1,200.

³⁷ The focus of one of a 2012 ACA commission Curated by Michele Horrigan. The effort included the artists Stephen Brandes, Diana Copperwhite, Tom Fitzgerald, Sean Lynch and Louise Manifold. In 2012 a subsequent ACA publication was released on the project with critical texts by Michele Horrigan, Padraic E. Moore and Brian O'Doherty.

³⁸ The focus of one of Michele Horrigan's own projects resulting in a performance and the ACA artist publication, "Stigma Damages."

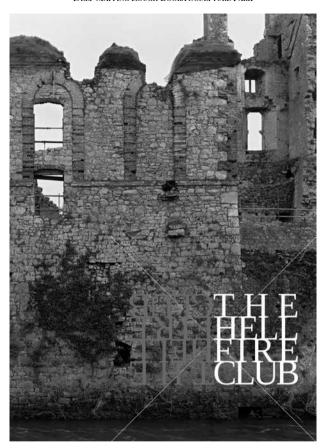


Figure 21: *The Hell Fire Club*. is situated on an island in the middle of Askeaton, the remains of the building from the 1700s. A scandalous gentleman's club established for the British and Irish aristocracy. Asking how this legacy might be further interpreted; artists Stephen Brandes, Diana Copperwhite, Tom Fitzgerald, Sean Lynch and Louise Manifold were commissioned by Askeaton Contemporary Arts to react to the Club's presence. After a series of site visits, their inquisitive approaches led to new artworks located throughout Askeaton, each engaging with a relic of history still prominent as a crumbling ruin. This publication features documentation of each realised commission.

Photo Credit: Michele Horrigan, 2012, pp. 3-4.

space or residency location, instead the town of Askeaton³⁹ is the focal point of artist inquiry and engagement. This curatorial effort and the complexities of inserting artists into various aspects of public and private life is supported by Arts Council Ireland funding. In the introduction to 'A C A Public', Horrigan claims, "Artists are not side-lined or marginalised here" they have become central to how the town understands itself and its public space (Horrigan, 2016). The ACA website describes the method as being "...built on a belief that contemporary art can be used as an active hub for local society, as a form of critique, investigation and celebration where artists are at the centre of these dialogues playing a primary and fundamental role" (Askeaton, 2019).

The team met with Sean Lynch, as Michele Horrigan had been called to other duties, in October 2019 in their studio at the Irish Museum of Modern Art. Their IMMA residency project was focused on artist residencies and engaged artistic practices in geographical, political, historical and everyday situations. Sean stated that [they] "...never wanted to have a gallery in the town. We just wanted to think about public space and how it would work down there" (Lynch, 2019). He went on to describe a residency that is something other than the traditional retreat to think about your own work. He described the Askeaton model as 'production residencies' where the curators facilitate anything needed to experiment with, to activate and engage ideas of public space. It is a long-term creative curatorial inquiry into the complexity of the town itself. Working with a range of international artists to interrogate and reveal historic institutions, commerce and industry, and the culture and people that define the character, spirit and life of the town. Major works included an extensive multi-artist consideration and publication on the Hell-Fire Club (2012). Horrigan's significant performative and carefully researched work on the Alumina refinery on Aughinish Island (Stigma Damages, 2014). And a project and seminar on the local seaweed industry with Belgian artist Filip Van Dingenen (The Algae Summit, 2017). About ten years into the work, Horrigan assembled

³⁹ Similar to Deveron Projects established in Huntly, Scotland (1995) where 'The Town is the Venue.' https://www.deveron-projects.com/



Figure 22: *The Algae Summit*, convened by Filip Van Dingenen, was an international conference taking place in Askeaton and nearby Shannon River Estuary concerning the seaweed rights and seaweed spirits. Commissioned by Askeaton Contemporary Arts and Lismore Castle Arts.

Photo Credit: Filip Van Dingenen 2017, p. 33.

a group of twenty colleagues to reflect on the work to date. The seminar titled 'Shape Shifting' resulted in the publication 'A C A Public' (2016), where Valerie Connor repeats the questions set out in Michele Horrigan's invitation to the seminar.

Can we as a community, commit to processes of engagement that might have no immediate outcomes, involving sustained dialogues, form and reforming opinions and continuously updating research? Can openended liberal approaches find a voice within broader social, cultural and political arenas?

Horrigan, 2016, p. 13.

In this quote Horrigan questions if there is room in the world for art and its focus on experience and ideas that shape perception and meaning, the fundamental building blocks of value. Can a rural community embrace (and benefit from) the idea of having artists in their midst who produce nothing more than dialogue, images, experiences and ideas that challenge extant values and perhaps a redefinition and consistent reconsideration of the historic and contemporary 'truths' that inform what is understood about the places of everyday life? It is a refreshing idea that prioritises the social discursive role of the arts over material artefacts. Although there is significant artwork permeating the public realm of Askeaton that has lasting value and import for the community as well.

Sean Lynch discussed the idea of an environmental brief by unpacking the algae project and the challenges of the alumina refinery. He described these as places artists gravitated to with little guidance from the curators. The work of Askeaton Contemporary Art begins with choosing artists who have the potential to embrace the residency model effectively. He described the role of producing the artworks as ever changing. Since there are no buildings or infrastructure, the curators have never created an institutional home for the projects but always sought out ways to serve the diverse needs of the artists working with them. Given that the work occurs in Horrigans's hometown we can assume the network runs deep













Figure 23: Michele Horrigan, stills from *What a Feeling*. "Stigma Damages is a term used by the legal profession to define possible loss or suspected contamination due to environmental circumstance. It could also describe a dance borne out of global flow and capital."

Photo Credit: Michele Horrigan 2014, p. 17.

and wide across the range of social, familial, economic, political and environmental communities that make up what it means to be Askeaton.

Leitrim Sculpture Centre.

Leitrim Sculpture Centre (LSC)'s Director is Sean O'Reilly. LSC is a complex of buildings in Manorhamilton in County Leitrim, which is a rural area with a population of 1,456 people. Manorhamilton was first known as *Chuainín Uí Ruaire*, meaning Uí Ruaire's small meadow, it was established along the banks of *An Abhainn Bheag*, the Little River, also known as the Owenbeg River. The land was seized by the British then granted to the Scotsman Sir Frederick Hamilton⁴⁰ in the mid 17th century. It was one of the first plantations in Ireland. The market town that evolved formed around the castle. The area is famous for the ruins, which lie just north of the town centre. Located on the N16, it is twenty-five kilometres west of Sligo and fourteen kilometres south of the border with Northern Ireland. Other well-known sites include the famine graveyard, nearby megalithic sites and the Leitrim Sculpture Centre, co-founded in 1997 by long-term Manorhamilton residents, and co-founders Jackie McKenna and Seamus Dunbar.

The centre consists of a large storefront gallery with studios and sculpture workshops on the N16, or New Line Street, in the town centre. There are three more buildings on Main Street that house printing, photography and computer workshops as well as the main office. There is one building that provides accommodation for visiting artists in residence. The team took a tour of the facilities in October 2019 with Scan O'Reilly. He talked about how LSC encourages artists to engage with the environmental, social and political context of the region. He began with a discussion of the Arts Council of Ireland's '2016-2025 strategy'. O'Reilly explained that the graphic (figure 24) places the artist in a fundamental relationship with the public. The Council's investment strategy is informed by provision across Ireland while developing capacity to deliver on this strategy. In light of this, all of

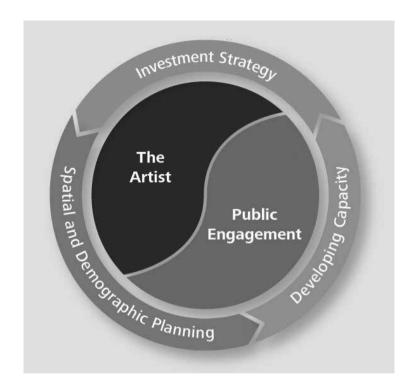


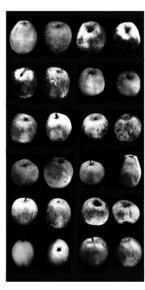
Figure 24: The Arts Council of Ireland describes their goals in terms of, "Artists are supported to make excellent work that is enjoyed and valued. Public engagement means more people enjoy high quality arts experiences. Public monies are intelligently invested to realize the Council's priorities. Well-planned arts provision benefits people across Ireland. The Arts Council and the sector have the knowledge, skills and inventiveness to realize the strategy and ability to develop new capacity where needed.

Image Credit: Arts Council Ireland 2015, pp. 14-15.

the LSC proposals, plans and reports follow that artist / public framework. Equally important is that sculpture is understood at LSC as performative interactions that involve "...human participants, materials, objects, plants, animals, landscapes, histories, heritage sites, physical spaces and structures, forces of nature as well as everyday practices, cultural representations and [the] public issues of concern" (LSC Programme Overview, 2019). This idea about sculpture opens up the production of artefacts to a much wider set of concerns. The team questioned O'Reilly about how he encouraged artists to think beyond the vast scope of the Leitrim facilities⁴¹ and the potential those tools and technologies have for creative expression. They also wondered how he encouraged artists to engage with the local social, political and environmental conditions.

In answer O'Reilly described three kinds of residencies. The first is an Exhibition Residency: Context and Collaboration that provides eight weeks at the LSC, six to conduct research and develop concepts and two to begin to develop new work; with exhibition to follow. The second residency is a Professional Development Research Residency which provides artists, curators and writers a month at LSC to investigate a specific idea or material and process without the requirement of exhibition or other output at the end of the process. They also have a Professional Development Technical Residency. This provides six weeks of support for work in relationship to the nine technical areas of LSC. Each of these residencies come with accommodation, studio, broadband and administrative, technical and curatorial support. Drilling down into the Exhibition Residency he drew attention to the current guidelines. The current brief is specific, "Exhibition Residencies are for artists who want to engage with place, people, industry, communities or landscapes in Leitrim." They provide examples of how this might happen and make it clear that "...a relationship to this context

Cast plaster and metal, welding and construction, blacksmithing, glass and ceramics, stone cutting, woodworking, woodcarving, printmaking, photography and digital production are all available supported by a group or resident master craftsman and a small team of technical experts. The energy intensive forms run once a year in concentrated master classes and studio rentals.



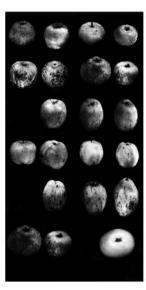




Figure 25: Christine Mackey, a creative exploration and representation of Dr. J.G.D. Lamb's research on 'The History of the Apple in Ireland.'

Photo Credit: Mackey 2013, pp. 74-79.

is an essential element of the programme" (LSC Residency Guidelines, 2020). The Professional Development Residencies are a little more openended, but they still promote 'issues or ideas' related to collaborative and material practices, writing, theory, history related to arts practice in the 'contemporary rural or environmental context.' The technical residencies have a tools and material focus.

Sean O'Reilly described the work that has been done as ranging from ongoing residencies where artists explore agriculture through research, exhibition and dialogue with farmers at the Manorhamilton Agriculture exhibition; to various explorations of border-issues and historic land use from agriculture to iron mining and spiritual sites. He discussed the fact that artists have diverse ways of engaging with the issues of landscape and environmental change. He made the point that he remains "very open to how artists might respond" to these kinds of issues ... (O'Reilly, 2019). Some of the projects embrace a restorative or healing ideal, a creative socioenvironmental interaction that intends some shift in values or perception about a relationship to nature. He cited Christine Mackey's Seed Matter II: Living Fields (2012), a social investigation of land use, plant culture and community gardening, as an example. The work was the second exhibition in a series of three that presented specific aspects of an ongoing social investigation into land use, plant culture, agriculture and community gardening. In the 2013 publication *Seed Matters* the artist described travels to seed vaults and meetings with seed ambassadors, farmers and scientists in Ireland, England, Iraq, Norway and Russia. Each exhibition added a new level of depth, revealing heritage seeds and narratives of indigenous agricultural practices. For the Leitrim Sculpture Centre the artist revealed the range of apples and the network of orchards that both developed and perpetuated diversity in the past.

O'Reilly then described working with artists who take a more metaphorical stance on environmental crises, bringing attention to issues such as climate change. For example, Gareth Kennedy's *The Future of Ice* (2008) started by





Figure 26: Gareth Kennedy, a video still from *The Future of Ice* an event with Dorothy Murphy. Kennedy 2009, Cover photo.

Figure 27: Elaine Reynolds, *I Always Wanted to be A Windmill*. A generator in a rowboat powers the projection of a film of its own destruction onto a remnant wall of a decommissioned coal fired powerplant.

Photo Credit: Elaine Reynolds 2009, p. 49.

taking two tons of water from Glenade Lough⁴² which the artist had frozen into two one-ton blocks of ice at a facility in Killybegs, Ireland's largest fishing port. The LSC then arranged transport and display of one block of ice to the gallery which is slowly melting. The other was brought back to Glenade Lough, north of Manorhamilton." Kennedy placed the ice block on a wooden platform on a pier at the lough; it sat there for some fifteen minutes while improvisational vocalist Dorothy Murphy sang a wordless lament. The ice was then launched into the lough by the artist and helpers and allowed to drift and slowly melt" (Reid, 2009, p.45). This can be usefully compared Elaine Reynolds I Always Wanted to be a Windmill another LSC project described in the same article by Reid. That work is focused on "... Ireland's landscapes of industry and energy production. [The] demolition of the former coal-fuelled ESB power station at Arigna in the 1990s." Reynolds designed a generator in a rowboat then used it to "... power the projection of a locally produced film (edited by the artist) of the dismantling of the station, from the lough onto the gable wall of one of the station's remaining structures" (Reid, 2009, p.47). Reid (a geographer) closed her review with the thought that artworks like these, which recognise natural and industrial histories, open up a discursive and contemplative public space in which we all have a chance to reconsider the present and future; a space that would not occur otherwise.

The Leitrim Sculpture Centre has a history of bringing technical talent and organisational will to significant artworks that function in a way that is quite different from a collection that is typical of a sculpture park. The LSC work has ties, perhaps, to the ephemeral efforts at Lough Boora, such as the work of Patrick Dougherty and Martina Calvin in 2008, or the work of Brandon Ballengée, Adele O'Dwyer and Grace Weir in 2010. Yet there are differences that are worthy of discussion, not least is the Director's intention. O'Reilly was quite clear he is a producer and researcher. His personal inquiry is in relation to the artists who make work at LSC. He is not 'curating artists' to be shown in Manorhamilton, rather he is constantly seeking deeper engagement with that place through a relationship with artists that

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apply to make work there. He is awaiting the next challenging proposal, "a chance to support an artist as they take on something they wouldn't do otherwise" (O'Reilly, 2019). Leitrim Sculpture Centre fields proposals from artists all over Europe and O'Reilly is convinced that some of the best artists have spent time at LSC and produced significant and unexpected new work that relates to a complicated social political and ecological landscape.

We function as a testing ground for creativity and innovation. Encouraging experimentation and material production and display of compelling and challenging new work. We facilitate the advancement of the artists and art forms with practical technical support [and residencies that allow for time to think] and exhibitions. We are dedicated to a fully inclusive mode of social engagement ...

O'Reilly, 2019.

Leitrim Sculpture Centre provides a unique and robust model to consider place; the environment and its social, economic and cultural conditions. It embraces aspects of a research centre in terms of the clarity of intention and questions, the assembly of tools and technologies, expertise and levels of partnerships. It is similar to Askeaton in the way it is grounded in place and focused on enabling new work to emerge.

Peacock Visual Arts | W OR M.

Peacock Visual Arts, directed by Nuno Sacramento is one of 'Scotland's workshops⁴³' a facility with regular support from Creative Scotland. The premises includes two buildings. One houses the offices and state of the art printmaking and digital arts facilities on Peacock's Close. The W OR M is an exhibition space in a storefront on Castle Street all within the city centre. There is no artist in residence component but there are significant commissions and fellowships. The exhibition programme has an alternative

sensibility with a range of interesting artists. In 2018 Peacock started a Peacock Associates effort that resulted in the funded year-long curatorial fellowship in the region. Peacock is located in the north-east of Scotland in Aberdeen a city of 197,000 with one ancient and one modern university, and a national landscape and land-use research institute. The economy has historically included agriculture, fishing, textile mills, shipbuilding and paper making. More recently it has been dominated by offshore-oil. It is presently struggling to rebrand itself as the 'Energy Capital of Europe.' It has significant parks and green spaces, theatres and concert halls, galleries and museums. It is also facing a significant crisis⁴⁴ in public investment in the arts at this time.

Nuno Sacramento has been the Director of Peacock Visual Arts since 2016. Prior to that he spent six years as Director of the Scottish Sculpture Workshop in Lumsden. His creative focus includes 'Deep Mapping', the W OR M project Room, and a Free Press a youth-led publishing project, the Curatorial Fellowships and the Castlegate Drawing School. He is involved in research, project curation, writing and lecturing. The team have known and worked with Sacramento for years. However, for this discussion the focus was on three key questions: How to approach a socio-environmental artist brief? What infrastructure is needed to deliver a consistent programme of social and environmentally conscious artwork? What networks are necessary to support a creative approach to complex interdisciplinary questions?

Sacramento is a researcher, curator and arts manager recognised for an interest in both radical activist practices, as well as traditional artist's media, material aesthetics and significant craftsmanship. Since leaving Lumsden for Aberdeen in 2016, the differential relationship between rural landscape and architectural cityscape has become significant in his thinking. He informed his current considerations with Rosalind Krauss' position on *Sculpture in the Expanded Field*, (1979). Peacock is the long-standing and

A formal network of eleven production facilities across Scotland including five print shops, four sculpture studios, two photo studios and one glass making facility. They all have 'regular funded organisation' status with Creative Scotland.

Aberdeen City Council has approved forty percent cuts in the funding of cultural organisations over a decade, nineteen percent over the last year alone. A recently reopened art gallery / museum complex has resulted in a £5M cost overrun. A new museums archive building saw additional costs of £3m.

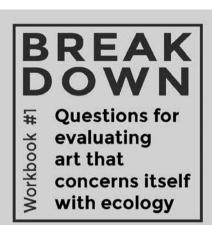
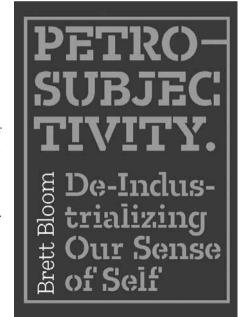


Figure 28: Brett Bloom, the cover of a workbook developed for the Breakdown Break Down series of interdisciplinary creative camps. Image Credit: Bloom 2016.

Figure 29: Brett Bloom, the cover of a deep mapping publication on petro-subjectivity.

 $Image\ Credit:\ Bloom\ 2015.$



highly regarded print studio and digital workshop and W OR M is a new public / civic endeavour which seeks to engage artists with Aberdeen and its social, economic, environmental and political conditions. He carefully chooses artists who have potential to push the dialogue. He characterises his interests as being grounded in cultural studies; understanding art as the means to interrogate contemporary culture, its historic foundations, defining traits, embedded conflicts and opportunities. His networks stretch from the American Midwest throughout Europe and the Nordic Region. It includes artists, poets and philosophers, social ecologists and permaculture activists. It is this breadth of interrelationships which provides the pool of talent that he is using to expand the dialogue in Aberdeen through WORM.

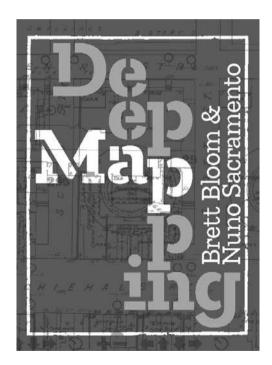
Nuno Sacramento does not write briefs for artists. He finds artists he wants to work with and begins a dialogue. He returns to many of the same artists over and over again. The outcomes from these dialogues result in exhibitions and public events, arts / activism, camps, fellowships and workshops. The programming model is unique. A case in point is a relationship begun many years ago with Brett Bloom. In 2017 they wrote a book together.

Deep Mapping: Encourages you to inhabit — through narratives or spatialized experiences — places you want to understand in a robust, inclusive, and expansive way... [Deep] Maps tell you more about yourself, the narratives you construct, and the values you explicitly or implicitly hold. To get an understanding of an actual place, one must inhabit its multiple overlapping contradictory stories simultaneously.

Bloom and Sacramento, 2017.

Sacramento uses this 'deep mapping' process in a range of workshops, talks and teaching as a way of grounding people in the places they seek to 'inhabit' as artists. It is one means of finding a semblance of an authentic voice when coming in from the outside. It can also be a means of bracketing what one thinks one knows about a place as a long-term resident. Learning to see anew, reconsidering ideas, perception and values with a fresh outlook. This is part of the intellectual infrastructure he has developed to support the artists, activists, poets, philosophers and curators he works with and help them come to grips with a complexity like Aberdeen.

Sacramento claims to see no need for costly infrastructure to support social and environmental practices. However, he described what he calls the DIY (do it yourself) elements of the *Camp Breakdown Break Down* workshop he developed with Brett Bloom in 2015. A gathering of diverse interests and expertise that sought to "challenge our industrialized sense of self and relation to the ecosystems we inhabit and rely on. It is for researching, debating, and practicing post-oil aesthetics and culture" (Camp Breakdown Break Down, 2015). In order to open up the potentialities for discourse beyond the workshops, a sauna was constructed; a temporary firepit was



 $Figure\ 30:\ Brett\ Bloom\ and\ Nuno\ Sacramento\ a\ collaborative\ consideration\ of\ deep\ mapping\ methodologies.$

Image Credit: Bloom and Sacramento 2017.

set up in the central courtyard and a long table for eating outdoors was constructed. A team of slow food experts oversaw the feeding of everyone. Incredible meals were followed by shared cleaning. Some of this spirit has infected the W OR M as well. There is a sense that people need to work together but also relax together, find a convivial pathway to deeper interrelationships. But it's the camp model that he wanted to close with, "A format that is as relevant to war zones as it is to utopian communities." When it functions well, "It is a deeply restorative space, where simple tasks are shared and there is a parity between everyone involved" (Sacramento, 2019). He talked about it as an appreciation for ongoing experimentation with diverse approaches to discourse, exchange, and even format. He is interested in the tension and release that occurs when ideas are placed in juxtaposition with divergent interests and practices.

Nuno Sacramento is presently focused on the W OR M's programme for 2020-2022 and working closely with the performance artist Esther Ferrer. He is initiating an anti-Brexit exchange of artists and curators with the Iberian Peninsula (Lisbon, Madrid and Catalunya).

Scottish Sculpture Workshop.

Scottish Sculpture Workshop (SSW) is directed by Sam Trotman. SSW is in the tiny village of Lumsden (population 300) and was the first of three national sculpture workshop / studios. It was established by Fred Bushe in 1979. SSW has four buildings onsite and separate housing for resident artists. Facilities include a metal foundry, wood workshop, metal workshop, ceramics studio, cold casting, fabrication room, studio and library. Lumsden is a fertile farming area. It is several miles northwest of the village of Alford, near the River Don and the upper course of the Water of Bogie. The Lumsden Garage and SSW are the most significant outward facing and generative concerns in Lumsden. Sam Trotman came to Scottish Sculpture Workshop in early 2017 with a range of experience. She describes herself as a producer not a curator. She had initiated the education programme at Artsadmin in East London and had worked as a producer developing interdisciplinary-arts programming

and support systems for early career artists; becoming a consultant to significant museums and galleries. However, it is her activist background working on Climate Camp⁴⁵ and Women for Refugee Women⁴⁶ that stand out in discussion about the Scottish Sculpture Workshop and how she understands the role of the arts in environmental futures.

Trotman began by saying she focuses on collaboration and collectivity. Part of her approach is to establish an institution that pushes against the myth of sole authorship and singular creative genius. The challenge is to establish value in reciprocity and participation in the arts rather than name-and- claim authorship. The other part of this approach is the idea of an institution and infrastructure that can be maintained (rather than grown) over the long term. She recently announced a major renovation of SSW's facilities, using a 'ground up' approach to local materials, skills and knowledge, with a focus on sustainability and creative functionality.

The first question asked was about the artists' brief and the topic of environmental change. Trotman described the range of residency programmes within SSW beginning with a Scottish Graduate School for the Arts and Humanities (SGSAH) residency⁴⁷ that supports three months of post-doctoral work at SSW. One aspect of the brief is concerned with multi-species values including new ideas, methods and pedagogies, an evolution away from extractive industries. The work is grounded in the "ecological, socio-economic and political concerns of our rural location." There is also an internationally funded 'North Air: Expanded Entanglements' residency⁴⁸" that focuses on the network's rural sites and

their 'proximity to nature / cultural entanglements.' Artists are encouraged to "....explore the multiple knotted knowledges and practices situated between ecology, location, community and history" through 'expansive research' creative work in Scotland and Finland. (Scottish Sculpture Workshop, 2019). There are also 'Lumsden', 'Summer' and 'Winter' residencies that are more about the uses of the tools and technologies onsite.

The other question was about the infrastructure and networks necessary for an artist to create work with a socio-environmental approach. Trotman is inspiring to talk to and unpacked the question by asking, "What kind of arts do we want to create?" Wanting to do things in a new way, and recognising that short projects and residencies perpetuate the precarity of artists and constrains possible outcomes, at SSW the question is how to "...connect making to environment, but also what does it mean to conduct collective [interdisciplinary] exploration in a sculpture facility?" Some of the answers were expressed in an overview of a work produced by SSW last year, Into the Mountain by artist / choreographer Simone Kenyon. Trotman describes this as a "... project that was ready to move, fit their fortieth-year anniversary goals and offered a space where questions were generated, and the idea of a monumental work could be challenged" (Trotman, 2019). Into the Mountain provides an excellent example of a significant networked (national) effort, with a plethora of partnerships and an extensive community of artist / performers. The work is the culmination of a long-held (five year) ambition by Kenyon to examine, with a group of women onsite in the Cairngorms National Park, The Living Mountain by Nan Shepherd. 49

The effort was developed through a Creative Scotland Research and Development grant and artist's residencies at Deveron Arts in Aberdeenshire, Cove Park in Argyle and Bute as well as 'Associate Artist'

week residency.

⁴⁵ A yearly event that served as a base for direct action environmental campaigns between 2006 and 2010.

A charity that provides a range of language, health and social support for refugee women. It sponsors research and documentation of women that have gender-based violence, with a focus on detainees at the Yarl's Wood Immigration Removal Centre.

 $^{47\,}$ Paying £14,553 per year pro rata for three months work, with housing and studio provided.

⁴⁸ Paying £3,000 plus up to £2,500 for travel and £500 in material fees for a four-

Written in the 1940s it wouldn't be published until 1977. It is essential reading for anyone interested in the Scottish landscape, and the ways that environment impacts body, minds and literature.

positions at Tramway and The National Theatre of Scotland in Glasgow. At the point of its final commission by SSW, partnerships were arranged with the Cairngorms National Park and Mountaineering Scotland as well as Dance North, City Moves, Tramway, Creative Scotland and Aberdeenshire Council. A core group of women directed the choreography, composition and voice, education and documentation. The commission supported four dancers and a choir of twenty-one. The performance was a demanding



Figure 31: *Into the Mountain*, performed in the Cairngorms National Park. Lead artist, choreographer, researcher and project initiator: Simone Kenyon. Performers: Claricia Parinussa, Caroline Reagh, Keren Smail and Petra Söör. Guided walks by Margaret Kerr, Jean Langhorne, Saffy Setohy. Composer and voice director: Hanna Tuulikki. Choir leader and vocalist: Lucy Duncombe. Choir: Alison Bell, Frances Davis, Beatrice Fettes, Anna Filipek, Caroline Gatt, Sarah Hobbs, Norma Hunter, Julie Lawson, Lisa Lawson, Sandy Leahy, Rebecca Livesey-Wright, Margaret Moore, Adele Napier, Angela Patterson, Sheila Pettitt, Sandra Robertson, Catherine Rose, Hannah Swift, Sheila Waterhouse, Ailsa Williams, Victoria Woodcock. Mountain leaders: Kathy Grindrod, Heather Morning, Sue Savege. Photo Credit: Felicity Crawshaw, 2019.

physical event to produce. The presentation would involve full days out in the hills with extensive mountaineering support and only thirty participants at a time. There is a lasting record in How the Earth Must See Itself50 a sevenminute film produced by the National Theatre of Scotland and Scottish Sculpture Workshop in 2019. Preparations for the work included Mountain Leader Training for the lead artist Kenyon and two project trainees. Simone Kenyon has led extensive workshops about the performance with the team and helped produce a publication on outdoor learning with the National Park. Not, unlike Askeaton and Leitrim Sculpture Centre, Sam worked with the artists' needs as they would arise. A robust group of partners were assembled: visual and performing arts organisations; the National Park and its Education Services and the mountaineering community all came together to ensure what might have seemed an impossible project actually became a model for socio-ecological interactions. This led to significant personal and organisational development for all involved. Experience of the performance, and even the film, impacts those on the periphery with an interest in the field of arts and ecology and its development. This is unique and significant work has every indication of creating a lasting impact, not only because of the depth of the inquiry and its relationship to the core text by Nan Shepherd but also by the sheer number of people and partners involved from beginning to end.

Sam Trotman concluded by talking about her interest in new questions and the cause and effect of direct action. She sees the Scottish Sculpture Workshop as an experimental space, where futures can be imagined. A space where new relationships to nature-publics are discovered, complicating what we know about the arts and public discourse and art in public spaces. Trotman seemed to be talking about turning the traditional residency model inside-out. Complementing the traditional idea of a residency as a place for quiet individual reflection and making; she also described experimental residencies that open up a wider discourse. She spoke about knowledge

The seven-minute film is available here and on the SSW and NTS websites and various other links. https://www.youtube.com/watch?time_continue=1&v=Tty8pAPD8HY&feature=emb_logo

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that comes from collectivity. She sees this as a porous knowledge developed through social interrelationships and interstitial points of agreement. She sees the arts as a place where ethics matter, where values are interrogated and where communities can all learn to walk, talk, work and think together in new ways. Obviously much of this resonates with the team's previous models. The core differences are the explicit activist and feminist roots and intent to shift ideas about the landscape as well as create new points of engagement where the landscape shapes the public perception, through the interface of art.





Figure 32: Detail: *Iarsma / Remnant*, a drawing and a painting (2019). Monica de Bath is recognised for significant work that emerges from creative inquiry and dialogue while working as long-term artist in residence on various cutaway peatland sites. The work above is from her studio at Bord na Móna Ballydermot Works, Bog of Allen. (2006-present).

"Through her practice de Bath is exploring the possibility of engagement with place through labour, conversation and collective action. ...The bog, once something perceived to be under attack by machines in the pursuit of fossil fuels is now acknowledged as a place where human exchanges are developed, where there is an emotional connection between worker and land and memory" (Maeve Mulrennan, 2010, pp. 32-37).

Photo Credit: de Bath 2019.

Artists.

In addition to conversations with the directors and curators Collins and Goto had plans to speak with many ecological and environmental artists about what they do. It proved impossible to get to all of them yet learning about their thinking and practices informed our thinking about how to support the work. Additional artists we spent time learning about as we developed this include Ruth E. Lyons, Fiona Woods, Francis Halsall, Eileen Hutton, Cathy Fitzgerald, Mark Clare and Fiona MacDonald.

One of the issues that emerged in conversation was about the challenges of becoming 'socially embedded'. There was commonality in the idea that working with curators who make introductions and facilitate engagement with local communities and experts saves a lot of time. Artists working to tight budgets and schedules and being asked to respond to issues in a particular environment, need guidance to find and talk to the right people. In some cases, technical expertise might be useful where the focus of inquiry includes a technological component; in other cases history, planning or policy expertise might help when artists are struggling to understand history, a current condition or future option. Understanding community ecologies and agri-cultures - both the traditional biological idea as well as the integrated relationship between people, places and things – is important, as is understanding the dynamics, tensions and experiences of landscape from different perspectives. Tools and technologies that allow artists to consider landscape, vegetation and microscopic scale are all useful. A significant consideration may be the ways plants mediate the space between earth and sky, then flood the winds over our heads at particular times of the year with spores and seeds. There are traditional forms of information ecology, for example biological systematics is the study of the form, differentiation and naming of individual species. Data ecology can provide an interesting basis for bio-acoustic music and data sonification efforts by artists and musicians. There are complex sensing devices that tell us about carbon sequestration, hydrological flows or even humidity and temperature differentials. Having a space to occupy and work from is essential for many of us, even when focused on external social and environmental topics. Some artists pointed out the value of a basic woodshop with a table saw and some hand tools. Others

brought up the value of being able to access various time-based media and desktop / video editing tools. Although most travel with what they need, extra tripods, microphones, monitors, projectors, various interactive tools, black box interface and a host of connectors are always a welcome find. Finally, artists traveling to make work always benefit from introductions that expand networks of people that speak to the issues central to our field of interest.

Ecological and Environmental Art Working.

During the workshop the idea of art and interdisciplinarity led to questions about the relationship between science, knowledge, creativity and artwork. Some discussions got quite tangled in language; as differences in areas of

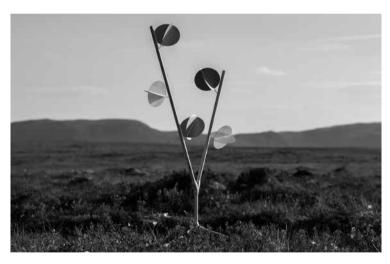


Figure 33: Hannah Imlach, 'Hazel (and Birch) Anemometer' with brass and 3D printed components, (2018) one of a pair of kinetic sculptures inspired by current peatland research. They form part of a series of sculptural "instruments" inspired by meteorological devices and peatland flora. The works were created as part of an 18-month residency with the Flows to the Future peatland restoration project, led by the Royal Society for the Protection of Birds (RSPB) in the Flow Country, Scotland.

Photo credit: Hannah Imlach 2019.

interest and expertise can make it difficult to communicate and find answers. At one table an ecologist asked, 'can all artists work across art and natural science'? This was followed by a discussion about artists working with ideas and practices that engage people and communities. Artist research was a particularly troubling term for some, as was the idea that theory is relevant to art practice. In appendix two you will find general thoughts about four relevant terms; art practice, critical arts practice, social and environmental arts practice and arts-based research. These are not silos but overlapping or relational ideas about what artists do and how they go about it. A broad consideration of what environmental artworking means.

Quotes from the Workshop 2019, November. 29, 2019:

There was a consensus regarding an integrated Arts & Ecology Research Centre, which could be housed in an existing building on site, that could be redesigned by an architect or architect team so it would be fit for purpose. It is important to identify the Centre's purpose / intention / objectives with Bord na Móna , Ecologists and Offaly Arts Office. Funding, staffing, commitment, buy in; are all essential for the sustainability of a centre. The centre should support artists and ecologist's residency programmes both national and international.

Denise Reddy, Curator, An Urgent Inquiry.

I think it was clear that the Sculpture Park is a stand-alone unit within the Discovery Park and any new pieces will be agreed by the new committee looking after the sculpture park. The rest of the discovery park should be open for commissions and development that includes local artists and craftsman. Helping to link the local villages to the park. The [existing] workshop and office space could house an integrated arts and ecology research centre and workshop space to make new sculptures. I think any artist coming to work should be staying in the local villages to gain economic value from them. The big question of rewetting the bog will need agreement from the local farmers.

Seamus Barron, Kilcormac Development Association.

These quotes establish three things. The arts and ecology focus, the challenges and details that need to be agreed as partnership activities are

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formed, and finally the practical realities of an appropriate interrelationship with people in the local villages and proximate farms.

Conclusion.

The Deep Mapping team has reviewed the history, sculpture and ecology sections and considered the issues and opportunities that emerge across those contexts. We have reflected on the potential scope and scale of a vision, supported with specific institutional case studies to inform thinking. Key issues have been raised by artists, curators and producers doing this type of work. This is supported by an appendix with ideas about how artists engage the environment as a topic; there is also a workshop review.

In terms of the overall project the biggest challenge was the 'deep mapping' of something so fundamentally open-ended. The team began this work excited about the ecological and biodiversity aspects and the potential for creative relationships working across the arts and science. The brief had requested consideration of cross-disciplinary and trans-disciplinary options, but the core challenge was how these priorities would be supported. We needed to return to the beginning to understand Pollagh, Lough Boora and the historic Sculpture Park boundary and grasp the essential import of landscape ecologies for future development.

This effort has focused on art-centric models because the arts offer 'open' approaches which can engage sciences, environmental reclamation and restoration, as well as communities. Another key challenge are the funding silos, ill-equipped to support work across these different dimensions. (Creative Ireland perhaps the exception.) It is unfortunate that, despite interest and a range of support for the environmental humanities, there is little complementary support for the development of specialist areas in the environmental arts. This can be considered either a significant constraint, or an opportunity to innovate and originate through future work in Ireland. During the workshop we all talked about appropriate scale of creative responses but that short duration exchange was largely inconclusive, so we have outlined three visions for further discussion:

The first would require an ideal expenditure of social and political capital to realise something that would be truly world class and sustainable. Ideally it would be an organisation that owns the property and has a small endowment or enterprise function that covers baseline costs allowing staff to focus on raising funds for the highest quality research and programme development.

The second option would involve strategic development of match programming and funding. This would require a more limited investment of social and political capital. If the arts and culture interests were prepared to seek a new inter-relationship with extant social and ecological research and development interests in Western Offaly County, something interesting could come out of this. The focus would be on residencies and research, with an intention to serve public interest, and enable discourse through resilient and sustainable public programming.

The final option is based on the historical example; a constrained investment in arts and culture programming with the landholder clear about how in-kind investment of land, materials and engineering expertise might look like going forward. This vision would need to take into account the equivalent of €25,000 invested annually during the heyday of the Sculpture park. The partners would refine the Memorandum of Agreement and develop a vision, objectives and business plan for curatorial effort and artist residencies for a period of not less than ten years. With this vision in place it is possible to refine and extend the models considered.

Each of the institutional models discussed are focused on place, meaning, history and current experience; each model has some level of commitment to questions of art, ecology and environmental change. The specific questions the team sought to answer focused on how the topic of environmental change was presented within the organisations, what kind of infrastructure was needed to support the socio-environmental approach and how the social and environmental topic altered network relationships within the organisation?

The team have also spoken to a range of artists most of whom are fully engaged in the forward-looking approach to arts and ecologies. They all had

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specific ideas about becoming embedded in socio-ecological communities and are articulate about the infrastructure that supports engagement with environmental issues outside the studio. What became clear as the team looked at institutional models is that the curator-producers of the various bodies described above are acutely aware of the effort it takes to support artists as they pursue significant work in this area. All of the institutional case studies reflect an artworld orientation although there is a difference by degree. Those that curate exhibitions and / or residencies function differently than those who have open calls for artists. Given the open ended, non-committal nature of the partnerships at Lough Boora that underpin this brief, the extra effort it would have taken to consider scientific institutions, academic bodies and funding systems⁵¹ that are either commissioning artists or bringing them on as environmentally active researchers did not seem to be a productive use of the team's time. The core partnership arrangements would have to be settled before scientific and academic partners could be productively engaged.

During the workshop in late October the parties were asked if a future Lough Boora arts programme should evolve out of the idea of an outdoor sculpture museum, an art and design workshop, or an integrated arts and ecology research centre.? Arts and ecology were easily agreed, given the near end of industrial peat harvest and the opportunities and challenges in the larger Boora landscape.

As described above the relationship with research was a stumbling block as many struggled with the idea in the context of art making. Others saw it as an endeavour that lacks 'doing', some claimed everyone does research, so it meant nothing. In the Appendix II the team offer four ideas about arts

and environmental working that starts with practice, critical art practice, social and environmental art practice and arts-based research, with the argument that art is defined by a set of relations rather than closely argued analytical truths. Environmental response occurs across this continuum of approaches.

Two colleagues having read through drafts of this wanted to know what we thought should occur with a project like this over the first five years. We spoke to others about ideals, and questions about the future. The list includes:

Artists and scientists have a constant presence onsite and in the local communities. They work together and apart.

A public archive of exhibition publications, conference presentations and documentation and reflection on experiments in interdisciplinary approaches should both develop and evolve.

A wide and diverse segment of the local community attend regular seminars, open studios, 'walk and talks' and workshops. Everything is always open to the public.

There should be a regular effort to secure public art funding to engage an artist to create work that engages ideas of deep time, environmental change and permanence within the bounds of the historical Sculpture Park.

Every three years a conference should be organised that explores the role of arts and sciences in ongoing global changes.

Every five years a Sphagnum Festival should be planned with musicians, composers, spoken word performers, field recording artists and sonification experts invited for a mass sound programme, performances and concerts.

The shift from curating art to an organisation that both produces and develops art and science relationships is significant. Talking about this during the workshop many saw art and ecology as the only direction that makes sense at the end of the harvest of peat as a national energy resource.

In the UK the Arts and Humanities Research Council funds artists to conduct research. The Valuing Nature Programme, with funding from the Natural Environment Research Council, the Economic and Social Science Research Council and other entities-incommon, work with artists to contribute to environmental research. There are also charities in the UK that integrate art and science in their core purpose.



Figure 34: Reiko Goto + Tim Collins, *Plein Air: Live at the Botanics* (2008-2019) A Climate Change initiated artwork that consists of a sound instrument embedded in a traditional wooden painting easel. Scientific sensors reveal photosynthesis and transpiration when attached to tree leaves; which is translated into real-time computer generated sound. The intent is explore the empathic potential of human - non - human exchange of oxygen and carbon dioxide.

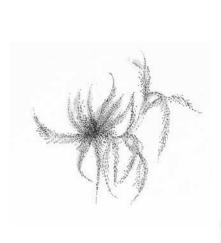
Photo Credit: Collins + Goto Studio, 2019

Some workshop participant were familiar with reports and studies that 'could' be used to buttress an argument for something ambitious, national and significant. But there were also people in the room that cautioned that big plans can easily go awry in Ireland. Best to shift what has been done or start small and test new ideas. Others were convinced until we had the local farmers and members of the regional communities involved, the 'work' was far from done. We have no answers to any of this, only provocations that tell us what has been done elsewhere, some ideas about meanings, and questions about what could be done. As artists we have a duty to think, write and act with a mix of responsibility and imagination. If only we had more time...

We believe that art does not fix things, solve problems, or predict change. It has a very particular kind of agency, one that creates space for comment and discussion, producing surprising changes to extant concepts and experiences. It is within this realm of human discourse, related to aesthetic perception and value, that art has its most inspirational and significant impact.

Collins, Edwards and Goto, 2017.

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Figure 35: *Sphagnum moss*.

Image Credit: Collins + Goto Studio, 2020.

AFTERWORD

In closing, the elephant in the room of this whole 'deep mapping' process is climate change. Without it the turn toward reclamation, rehabilitation and restoration would have played out differently. Whether conservation interests would have been able to protect the remnant raised bogs without the support of the European Courts and the driving interest in carbon sequestration and biodiversity is worth thinking about. Anthropogenic climate change has its root causes in over two centuries of greenhouse gases produced by the first and second industrialised nations of the world. Drying out boglands, removing the conditions that sequester carbon, then milling and burning peat for national energy production is an idea that made sense after the war, and at the point of the OPEC Oil Embargo. It makes little or no sense today, but the unanswered question is what will replace it? Will the response to the end of the peat harvest have the same cultural potential as the industrial peat harvest? Will the land that 'opens up' after harvest, shape the communities that surround it in new ways? Do the arts have a role to play in shaping that future condition? It is an interesting set of questions and Lough Boora is again at ground zero of the development of a new era of landscape relationships in Ireland.

It wasn't until the final steps of our work that a new report from Creative Ireland on climate change came to our attention, It concludes with the following thoughts and follow on questions.

...It is through the medium of culture and creativity that the underlying ethical, cultural, political and economic questions will be deliberated, and that new sustainable values and ways of living will be disseminated.

Are the sectors able to move beyond acting as a mediator between climate science and public awareness and understanding towards supporting more 'transformative' changes in society?

Can the sectors take a lead on the climate debate across society while ensuring that high quality cultural and creative works are made?

M.CO, 2019, pp. 20-21.

APPENDIX

APPENDIX ONE | PARTNERSHIPS.

There have been many workshops over the years that have focussed on the ideas essential to partnerships. One such example is a National Parks workshop which took place twenty years ago in Santa Fe, New Mexico. The nine partnership ideas which emerged were simple, straightforward and remain relevant today as a way to reflect on the partnership challenges at Lough Boora Discovery Park and the Sculpture Park as they provide both a structured approach to the past and a productive path to imagine futures. The characteristics are summarised thus:

The first idea is about developing a shared vision, created with full engagement of all partners; the second is about ownership of the partnership throughout each partner organisation. Sustained leadership at a variety of levels within each partner organisation is important, with each having a commitment to sharing responsibility in problemsolving and decision making. Partnerships should demonstrate strong interpersonal relationships, trust, and ongoing communication with an appreciation and reliance upon one another's strengths. A good partnership requires a flexible administrative environment that encourages and rewards creativity, risk-taking, innovation, and entrepreneurship. There is a strong local 'taproot' that grounds the partnership in place, heritage, and tradition. Place-based initiatives catalyse citizen engagement.

Tuxill, Mitchell and Brown, 2004.

Over time partners need to renew or revalidate shared vision. Changes in leadership and even membership of the stakeholders' groups need attention. Shared responsibility in vision, problem-solving and decision making must be based on trust, communication, and appreciation for the fact that each partner brings individual strengths to the table. Partners need to be able to reflect on the value of their investment within the broader vision of their own institutional interest and appreciate its sustained long-term

benefit. Where this ideal sometimes falls short is when the resource is not significant enough to support the level of effort required by everyone involved. Another problem occurs when changes have been identified, or issues have been clearly stated but are ignored. The end of the peat harvest is a very significant event in Irish culture. The partners should be considering all options, looking at opportunities and resources with clarity about the risks and constraints. The partnership must be based on risk-taking and the kind of innovation that can't be accomplished without the full partnership.

There is perhaps an emergent post-peat public realm in west Offaly County. Hints of this can be found in the early work of the Boora Enterprise Group. Their feasibility study of the Lough Boora Parklands may deserve a second look. There is a need for a locally relevant amenity and a new economic engine amongst the villages and towns dotted around the Boora complex. The idea of an 'Irish National Park' needs discussion. What is clear is that all the parties involved are creative, thoughtful and significant professionals in their fields. They clearly have core values in common and share a love of this place. Getting the balance of interest right is essential for the future. Getting the balance of interest, gender and skill right is perhaps the key challenge, followed by the need to establish a sustainable model that integrates art, science and the public interest in a productive imaginary endeavour, a series of cultural experiments that begin to give meaning and form to the future.

APPENDIX TWO | ENVIRONMENTAL ART WORKING.

Art can be determined by its cognate relations, its resemblance or similarity to work that is recognised as art in either form, content or concept. It can also be identified by its significant otherness, the way it engages meaning and value beyond the practical. It cannot be defined in such a way that any one term holds true for all work produced by artists. Art is a generative area of human inquiry that constantly challenges its own boundaries and as a result is resistant to any attempt at finite analytical definition. We offer the following ideas as a means of grappling with the approaches, methods and ideals that are found amongst artists with an interest in art, ecology

and the human dimensions of environmental change. This impetus to understand different forms of art-practice emerged during the workshop as we came around to arts and ecology as the future focus at Lough Boora Sculpture Park. Discussions of interdisciplinarity led to questions about the relationship between knowledge and creativity, how to know when an artist is intellectually or creatively prepared to work across art and natural science, social science, philosophy and / or ethics? What might we look for when considering a commission where the artist is asked to grapple with questions of society and the public good? Artist research was a particularly troubling term for some participants in the workshop. Others struggled with the idea that theory is relevant to art practice. Below are some general thoughts about the different ways artists come to questions of the environment. What we describe below are not silos but rather overlapping or relational ideas about what artists do and how they go about environmental art working.

Arts practice is the general term for the 'work' of artists. Contemporary practice is an evolving process of creative inquiry with specific ideas and materials. The outcome more often than not is a material object or an experience of materiality. The artist practitioner trusts that the work 'speaks for itself' in that once complete it leaves the studio; at that point the artist's intentions and ideas about meaning are not relevant to the experience of the work by others. A professional artist is aware of discipline specific context. A singular work or a body of work can be a strategic response to that past or evolving practice in the present. The artwork can also be experienced as a lyrical, expressive or metaphorical exposition of the artists' subjective experience of the world processed and considered internally before being externally explored and ultimately manifest through creative engagement with materials. Those that experience and engage the work complete the work through aesthetic perception ascribing their own meaning and /or value to the artwork. The artwork can also be informed by experience / response scenarios which shift the artists central inquiry.

A simple concept map would include artist-artwork-audience.

Critical arts practices are a creative inquiry where philosophy (ideas, beliefs and meaning) or critical theory (a focus on freedom) are embedded in, or perhaps tested, in practice. The outcome of the actual artwork has a conceptual clarity that can either be embedded in materiality, or performativity or it can forego physical experience altogether and rely on text or language-based forms of communication. In this kind of artwork an idea, a statement or an allegory is the essential aesthetic element perceived by the audience as they consider the work. Philosophies relevant to arts and ecology would include aesthetics and ethics, but also environmental aesthetics and ethics. Deep ecology, social ecology, feminist ecology are all relevant to the development of practice in art and ecology. Post-colonial theory and ideas about the indigeneity of people, living things and practices are all relevant to this topic. Critical theory is focused on liberating people, places and things from the circumstances that constrain them. Given that 'nature' is primarily non-verbal there is also discourse theory that informs ethical standards and constraints on how artists might represent the interests of more-than-human others. Ideas can be integrated with, informing practice, or tested through practice in a range of ways.

A concept map includes artist-theory-artwork-art-audience.

Social and environmental arts practices (SEAP) are embedded in a topical focus on ecological and environmental change with both singular and cooperative approaches to social and political conditions, the human experience of said change. An essential element is an ongoing interest in knowledge that informs our experience of changes to material conditions as well as the philosophical issues (questions of meaning, ethics, freedoms) that are embedded in human nature interrelationships. The social / environmental inquiry has a specificity and a consistency that is palpable and persistent. The artist's response can be embedded in forms of activism-critical art practice, community practice, or a more general material practice. It can be difficult to separate the social from the physical in arts and cultural inquiry; the physical, chemical and biotic factors are intertwined with the social and cultural conditions in terms of both cause and effect. A big part of the current evolution of this area of practice is defined by the announcement that we have entered the epoch of the Anthropocene, where we recognise

that the primary force of change on earth is humanity (or specific aspects of humanity). This concept and its historic and contemporary agents, the socio-political and economic conditions that manifest this point in time are contested in the arts and humanities. None-the-less its general truth opens up a sense of empathy and ethical duty owed to all living things; if not a sense of fundamental interrelationship. This concept challenges the principles of the enlightenment the idea that the earth is raw material to be harnessed by humanity to produce economic and political freedom. It also challenges the modernist ideal that science and technology resolves all risks and provide meaningful response to any discomforting change.

A concept map artist-socio-environmental-inquiry-public-output.

Arts-based research is fundamentally differentiated by attention to the social discourse; the reflective consideration of the development. process and outcome of the research amongst peers and interested parties. Responsibility for how one's work contributes, extends or critiques current ideas or practices. Arts-based research or practice-based research is informed by history and theory, requires an understanding of current work in the field and can address a topic within the field of art itself, or (like other disciplines) a topic out-with the field. Environmental Arts Research can be understood as a process of investigation leading to new insights, new outcomes and an evolution of values that are effectively shared. The focus is the same as the previous definition; it is on ecological and environmental change or the social and political conditions, the human experience of said change. Arts-based research is about the invention and generation of ideas, images, performances and artefacts where these lead to new or substantially improved insights about material and methods, the application of new technologies, or ideas that can be tested in practice. As impact is often a consideration for research we are talking about artwork with potential benefit to other artists, to a specific segment of society and /or an ecocultural body. Art working that reveals new critical awareness of aesthetics, behaviour, ethics, performance, practice, extant values or understanding.

The concept map artist-topical-inquiry-theory-artwork-discourse

Making art with a topical focus is alternately a usual and an unusual endeavour in our field. In one way artists have always responded to the world around them. In another artist have developed new intellectual and social entanglements that are essential to diversifying practices. This short appendix contributes to a discourse about how theory, science, socio-political engagement and research is relevant to what is generally understood as art; particularly artwork with an environmental focus.

Friends, acquaintances and colleagues in other disciplines often smile when we say, 'critical practice.' When we describe a creative focus on ideas, beliefs and meaning they find it less challenging. Freedom is about a fascination with the way things could be rather than the way they are. Most people that have lived for two or three decades understand changes to the environment. They have a lived understanding of post-industrial land, or perhaps have sought out a remnant natural ancient forest. Many have thought about restoration ecology and re-wilding. These changing conditions of our nature/cultural relationship are understood intellectually and experientially. The idea that artists can engage such changes through painting, sculpture, photography or other media is not hard to grasp. It takes a bit more effort to think art working that includes research linking intention to experimentation, reflective assessment and writing relevant to historians, theorists and practitioners in the field. The relationship between creativity and knowledge is a more difficult area; suffice to say that creativity is not confined to the arts and empirical investigation and knowledge are not confined to math, science and engineering. We want to close with the idea that art cannot be defined nor is it easily confined to one material, method or theory. The arts work from the historical centre outwards in search of boundaries to cross where new experience, perception or meaning is possible. This is a significant factor in why artist working on environmental conditions see the world differently, tend to reinterpret history and imagine unexpected futures. The preceding ideas about environmental art working are intended as a contribution to the discourse, how we talk about art working in relation to the world of ideas and materials we are immersed in. Everything described here is art. All art is not the same. Any artist's practice might embrace one or more, or all of these ways of environmental art working. One way is no more valid or important than the other although methods and outcomes differ in the way they engage the world and what it means. That cultural diversity is worth talking about.

APPENDIX THREE | THE WORKSHOP

Workshop Participants: Seamus Barron, Michael Bulfin, Stuart Conaty, Alex Copland, Sean Craven, Tom Egan, Dave Fallon, Catherine Farrell, Frank Heslin, Hannah Imlach, Linda Kelly, Christine Mackey, Mark McCorry, Sally O'Leary, Deirdre O'Mahony, Sinead O'Reilly, Amanda Pedlow, Denise Reddy, Joe Ryan, Sylvia Sweeney, Paddy Woodworth.

Apologies: Anna-Marie Curry, Michele Horrigan, Brendan O'Loughlin, Sinead O'Reilly.

Participants: Artists, Offaly Council members planners and arts and heritage officers, Bord na Móna ecologists and land managers, curators and writers.

The Public Meeting: Included local community artists, a farmer, business interests, Bord na Móna staff past and present as well as artists, musicians, educators, conservationists and landscape architects.



Figure 36: Sally O'Leary providing an overview to a community group. Photo Credit: Collins + Goto Studio (2019).

How do our models inform these ideas? - Are we talking about an outdoor sculpture What museum updated and maintained to a high as the standard with a resident curator? energ - Or perhaps a post-peat-extraction artist, designer, craftworker workshop. With regular Are w residencies for outside artists? Sculpt - Does it make any sense to consider an perhap Integrated arts and ecology research centre? embrac An international residency programme? that ma community export of optims 2+3 opportuities typy lied by tabricanin facilities and local skills + unique opportunity to artists > Poes the (natural tous on art + ew losy of miscom 4Lough + Lorgh 2 (an other be sited > Variety brought by artists in skills processes needed to make work - toleration thinks > Affirt-in-residence / ecologist-in-residence / sourgist-in-residence >1s there tending / aportice for large-scale sulptime? Mainstaince of large scale sulptire > What are the other resources /centers in frelled to fabricating sculpture? Coffer something different

Figure 37: Notes from the workshop. Photo Credit: Collins + Goto Studio (2019).

The Workshop began with three presentations on the History of Lough Boora. We then had six presentations on various aspects of Art, Society and Ecology. This was followed by a workshop session, in two separate groups, lasting two hours. We closed with an overview of outcomes and final feedback by Paddy Wordsworth. We then broke for dinner before welcoming the community for another round of presentations and discussion.

Key Workshop Questions.

1. Are we talking about an outdoor sculpture museum with a resident curator?

Or perhaps an artist, designer, craft workshop? With regular residencies for outside artists?

Should we consider an integrated arts and ecology research centre?

2. What is the appropriate geography-of eco-social aesthetic concern?

How big is too big, how small is not big enough?

Are we talking about the boundaries of the Sculpture Park?

The whole Discovery park or perhaps the full Boora complex?

Does the work embrace villages, and conservation boglands at Clara and Mongan?

3. How are the social, cultural and political interests of Ireland and Offaly County best served? How will Kilcormac and Ferbane and Tullamore benefit from cultural investment as the industrial economy comes to a halt?

Responses.

1. Museum, workshops, residencies or integrated arts and ecology centre?

Both groups agreed that the only viable plan was to look forward to the ecological future and support the local villages and engage the local work force. The secondary issue was a need to establish a boundary with agreements necessary to support the Sculpture Park into the future. Finally there was a blend between workshops / residencies and the arts and ecology

















Figure 38: Photographs of artists, ecologists, BnM staff and planners at the workshop. Photo Credit: Collins + Goto Studio (2019).

research focus that was attractive to many. Although questions were also raised about research and its meaning as it applies to work across arts and ecology. Some pointed out that the focus needed to include the arts, the humanities, ecology and social science as well.

Strategy: The need for partnership agreements with clear commitments was discussed as well as the need for a business plan that would establish:

The relative need or cost of any building, workspace.

The year-to-year costs of an arts/science residency programme.

The long-term costs of maintaining the large format Sculpture Park likely without access to the Bord na Móna tools, facilities and expertise that were available onsite, ten years earlier.

2. The geography of concern.

A clearly delineated boundary of responsibility and curatorial policy is essential for the Sculpture Park. With consensus that this should not be used to restrict a wider area of socially and environmentally engaged research and practice. Arguments were made for the larger Boora complex as a focal point of ecology, history and industry. Others suggests common landscape ecology in western Offaly County including cutaway peatlands and conservation boglands would be an ideal scale for productive creative inquiry. A follow-on discussion focused on how big is too big, how small is not big enough, but it was felt that this level of detail would be addressed in subsequent planning. The other issue that came up was the name. Does the Lough Boora Sculpture Park or Sculpture Parklands restrict expectation and miscommunicate intentions? Would something like the Lough Boora Landscape Residency Centre (LB | LRS) or the Lough Boora Arts Ecology and Society Centre (LB | AES) or perhaps the Centre for Arts, Science and Environmental Change (CASE-Change)?

3. The final question was about the interests of Ireland and Offaly County, Kilcormac and Ferbane and Tullamore?

This is a practical problem that the arts struggle to answer. Many in the group felt that to have the most significant impact, the effort needed to evolve into a national scale effort. How to get there was a conflicted discussion with some arguing for slow growth and iterative development and more than a few having misgivings about any large-scale effort. The general thoughts were about holistic ecologies and the social, natural, political economy of land and labour which has been the dominant force in the region up to this point; is it changing and can culture help it change for the better? The second point was about getting people to spend more time rather than trying to grow the region, finding ways to develop programmes and process that get those that come in from the outside to engage the social economy within the villages and city. The final point was about slow tourism and attention to the entire historic picture – agrarian land use, industrial energy harvest, agriculture and plantation reclamation, ecological restoration of conservation bogs and generative ecologies that seek to rewet and rewild, to establish biodiversity and carbon sequestration values where they have been lost.

The Sculpture Park has established a baseline understanding about how the arts contribute to heritage, to culture and new ideas about place. Having said that there needs to be clarity that the arts have neither the power nor the access to resources that would alleviate the significant challenges faced by the adjacent farmers or the laid off workers in the villages. Artists are very good at new ideas, critical creative review of options and explorations of ideals images and opportunities that the more practical disciplines, aligned to the practical mission and brief of a commissioning body, may never see. That input can have significant future value; it has clear historic impact at Lough Boora.

BIBLIOGRAPHY

Askeaton Contemporary Arts (2019) *About Askeaton Contemporary Arts*. Limerick, Ireland: Askeaton Contemporary Arts. Accessed November 15, 2019. http://www.askeatonarts.com/about.html

Barron, S., Egan, T., Feighery, T., Fleming, E., Healy, K., O'Boyle, D., O'Hara, A. and O'Riordain, P. (1994) *Lough Boora Parklands Pre-feasibility study by Boora Enterprise Group*. Ferbane, Ireland: Brosna Press.

Bellamy, D. (1986) The Wild Boglands. Dublin, Ireland: Country House Dublin.

Bloom, B., Sacramento, N. (2017) Deep Mapping. Auburn, Indiana: BKDN Press.

Bord na Móna (1996) 'Scéal na Móna, Vol.13, No.11, December.' In, *Bord na Móna and Bog Conservation*. Accessed online April 7, 2020.

Bord na Móna (2010) *The Bord na Móna Biodiversity Action Plan 2010-2015*. Newbridge, County Kildare, Ireland: Bord na Móna.

Bord na Móna (2011) *The Future Use of Peatlands*. Newbridge, County Kildare, Ireland: Bord na Móna.

Bord na Móna (2015) *The Bord na Móna Biodiversity Action Plan 2016-2021*. Newbridge, County Kildare, Ireland: Bord na Móna.

Bord na Móna (2017) *Third Development Program: Excerpts from Scéal na Móna, vol 1, number 1, Summer 1974, p. 20-4*. Accessed December 18, 2019. https://www.bordnamonalivinghistory.ie/article-detail/third-development-programme/

Bulfin, M. (2019) Interview with Michael Bulfin Oct 23, 2019, At his home, Dublin, Ireland.

Counihan, A., Egan, T., O'Boyle, D. (2015) An Audit and Maintenance Survey of the Existing Sculptures at Lough Boora by Sculpture in the Parklands 2002-2010. Compiled by Counihan, A. A report to the 'new' Lough Boora Sculpture Park Steering Committee.

Counihan, A. (2019) Email conversation. October 19, 2019.

Coyne, J. S., Willis, N.P. (1841) 'The Bog of Allen and Observations on Irish Bogs'. In, *The Scenery and Antiquities of Ireland.* Accessed online Library Ireland. April 9, 2020.

https://www.libraryireland.com/SceneryIreland/V-10.php#anchor5a

Cross, J. R., (1990) *The Raised Bogs of Ireland: Their Ecology, Status and Conservation*. Report to the Minister of the Department of Finance. Dublin, Ireland: The Stationary Office.

Department of Arts, Heritage and the Gaeltacht (2015) *National Peatlands Strategy*. Dublin, Ireland: National Parks and Wildlife Service.

Dooley, E., (1997) *Bogmen be proud: Toward a History of Bord na Móna Boora*. Ferbane, County Offaly, Ireland: Brosna Press Ltd.

Egan, T. (Editor) (1998) *The Future Use of Cutaway Bogs*. (Lough Boora Parklands Conference Proceedings.) Ferbane, County Offaly, Ireland: Brosna Press Ltd.

Egan, T. (2019a) Interview with Tom Egan and introduction to Seamus Barron at Lough Boora Discovery Park. Lough Boora, Offaly County Ireland: September 13, 2019.

Egan, T. (2019b) Interview with Tom Egan in his Bord na Móna office with a subsequent tour of the Boora complex. Lough Boora, Offaly County Ireland: Sept 27, 2019.

Fáilte (2014) *Ring announces -€1-4m for key Wild Atlantic Way Sites*. Dublin, Ireland: Fáilte Ireland. Accessed online December 13, 2019. https://www.Fáilteireland.ie/Footer/Media-Centre/Ring-announces-€1-4m-for-key-Wild-Atlantic-Way-sit.aspx.

Farrell, C. (2020) Email conversation with Catherine Farrell. February 10, 2020.

Feehan, J., Kaye, B. (1998) 'Creating Space for a New Irish Wilderness.' In *The Future Use of Cutaway Bogs*. (Lough Boora Parklands Conference Proceedings.) Editor Egan, T. Brosna Press Ltd., Ferbane, County Offaly, Ireland.

Forest Service (2010) *Irish Forests - A Brief History*. Kildare, Ireland: An Roinn Talmhaiochta, Bia agus Mara, The Department of Agriculture Food and the Marine. Accessed October 15, 2019.

https://www.agriculture.gov.ie/forestservice/forestservicegeneralinformation/irishforests-abriefhistory/

Foss, P., O'Connell, C., (1997) 'Bogland: Study and Utilization'. In *Nature in Ireland: A Scientific and Cultural History*. Editor. Foster, J.W., Dublin, Ireland: Lilliput Press.

Griffith, J. P., Young, S., Ryan, H., Fletcher, G. & Purcell, P. F. (1921) *The winning, preparation and use of peat in Ireland, Report of a Committee of Enquiry, Fuel Research Board.* Department of Scientific and Industrial Research, London.

Horrigan, M. (2016) 'Introduction'. In *A.C.A. Public*. Editors Daly, W., Horrigan, M., Lynch, S. Askeaton, Ireland: Askeaton Arts.

Hynes, P. (2001) 'Introduction.' In, *The North Mayo Sculpture Trail.* Editor, Lonergan, A. Foxford, Ireland: Dealbhóireacht 5000 Teoranta.

Irish Peat Conservation Council (2020) *Dutch Irish Bog Conservation*. Accessed online 2019 Jan 17.

http://www.ipcc.ie/a-to-z-peatlands/dutch-irish-bog-conservation/County

Kildare (1948) 'Lullymore Peat Briquettes in the Irish Press, 17 November, 1948'. Archived in the *County Kildare Online Electronic History Journal*. Accessed April 9, 2020. http://www.kildare.ie/ehistory/index.php/lullymore-peat-briquettes/

The Living Bog (2020) Saving Mongan, the Dutch Connection. Accessed online Jan 17, 2020. http://raisedbogs.ie/the-dutch-connection/

Lyderson, K. (2011) 'Ireland Amidst Turf Wars, Literally'. Online in *Working In These Times*. Accessed 2020 Jan 15. http://inthesetimes.com/working/entry/13345/ireland amidst turf wars literally

Lynch, S., (2019) Conversation in artist in residence studio at Irish Museum of Modern Art. October 23, 2019.

Bibliography

Mac Nulty, D., (2019) *The Lough Boora Discovery Park: Feasibility Study / Strategic plan (Draft)*. Dublin, Ireland: Tourism Development International.

Magan, M. (2016) *How Irish Culture Got Sucked in by the Bog*. Dublin: The Irish Times, August 16, 2019. Accessed November 6, 2019. https://www.irishtimes.com/culture/how-irish-culture-got-sucked-in-by-the-bog-1.2750541

Mayo Ireland Ltd., *Tír Sáile: The North Mayo Sculpture Trail*. Mayo, Ireland: Mayo Ireland Ltd. Accessed online November 3, 2019. https://www.mayo-ireland.ie/en/things-to-do/museums/tir-saile.html

M.CO (2019) Engaging the Public on Climate Change through the Cultural and Creative Sectors. Dublin: Creative Ireland Programme Office of the Department of Culture, Heritage and the Gaeltacht.

Moriarity, C., Corless, A. (2016) *New Discovery Pushes Back Date of Human Existence in Ireland-by-2500-Years*. Wexford, UK: Irish Archaeology blog. Access November 1, 2019 http://irisharchaeology.ie/2016/03/new-discovery-pushes-back-date-of-human-existence-in-ireland-by-2500-years/

Mottiar, Z, Quinn, B, Ryan, T, Stacey, J (2013) *Building Collaboration Between the Arts and culture and Tourism Sectors in the West of Ireland*. Dublin: The School of Hospitality Management and Tourism Dublin Institute of Technology. Funded by the Fáilte Ireland Applied Research Scheme.

Mulrennan, M. (2010) "Collective Consciousness." In *Plot 1 / Ceapach 1*. By Monica de Bath, Edited by Fiona Fullam. Kildare, Ireland: Kildare Local Authority Arts Service. Online at: https://c9066084-9fbc-4ac5-bdb7-d334a9181bed.filesusr.com/ugd/abd0ef 059c56ca8a3648a88cb7252b8df72be3.pdf

National Parks and Wildlife Service (2013) *The Status of Protected EU Habitats and Species in Ireland. Overview Volume 1. Unpublished report, National Parks and Wildlife Services*. Ed. Lynn, D. Dublin, Ireland: Department of Arts, Heritage and the Gaeltacht.

O'Cuiv, R. (2019) Telephone interview on November 6, 2019.

Offaly County Council (2007) *Arts plan 2007-2011*. Offaly, Ireland: Arts Office, Offaly County Council, Áras an Chontae.

Offaly County Council b (2012) *Arts plan 2012-2016*. Offaly, Ireland: Arts Office, Offaly County Council, Áras an Chontae.

O'Leary, S., (2019) Personal communication. December multiple dates. Offaly County, Ireland: County Council Arts Officer.

O'Mahony (2019) *T.U.R.F. Transitional Understandings of Rural Futures*. PowerPoint Presentation for the Deep Mapping workshop at Lough Boora Sculpture Park, Oct 29, 2019. Kilcormac, Ireland.

O'Reilly, S. (2019) Personal communication. Dec 13, 2019. Dublin Ireland: Arts Council Ireland. Head of Local Arts.

O'Shea, V. (2011) *Sculpture in the Parklands*, Review. Unpublished report commissioned by Lough Boora Parklands Group. Offaly County Ireland.

O'Toole, A., (2019) Email conversations. November 8, 11, December 11, 2019; January 20, 2020. County Mayo, Ireland: Assistant Arts Officer.

Reid, B., (2009) *The Territory of Art and the Territory Underfoot: A Reading of Three Artworks from Leitrim.* In Circa 127. Contemporary Visual Culture in Ireland, Spring 2009. Dublin, Ireland: Circa.

ROSC (1977) "Joseph Beuys, Irish Energy 1." Exhibited in, *Rosc (Poetry of Vision)*. Dublin: Municipal Gallery of Modern Art and National Museum.

Ryan, M. (1998) Archaeology and the Bogs. In, *The Future Use of Cutaway Bogs*. (Lough Boora Parklands Conference Proceedings.) Ed. Egan, T. Ferbane, County Offaly, Ireland: Brosna Press Ltd.

Sacramento, N. (2019) Skype interview on 2019, Oct 23. Nuno was at work in Aberdeen.

The Irish Press 17 November 1948, Lullymore Peat Briquettes. Accessed December 10, 2019. http://www.kildare.ie/ehistory/index.php/lullymore-peat-briquettes/

 $\label{lem:composition} Tipton, G.~(2010) \textit{Culture in the Cutaway}. April~3.~Dublin: Irish Times, April~3, 2010. \\ Accessed online, Nov~3, 2019.~https://www.irishtimes.com/culture/art-and-design/culture-in-the-cutaway-1.647575$

Tipton, G. (2018) What are these strange artworks popping up all over Mayo? Dublin: Irish Times, Jan 6, 2019. Accessed online, Nov 7, 2019. https://www.irishtimes.com/culture/art-and-design/what-are-the-strange-artworks-popping-up-all-over-mayo-1.3331499

Trotman, S. (2019) Telephone interview on Oct 29, 2019. Sam was at work at Scottish Sculpture Workshop.

Tuxill, J. L, Mitchell, N. J., Brown, J. (2004) Collaboration and Conservation Lessons Learned from National Park Service Partnership Areas in the Western United States. Woodstock, Vermont: the Conservation Study Institute.

Woodworth, P. (2013a) Bitter dispute over turf-cutting on raised bogs has gone on for far too long. In the Irish Times, Friday Aug 2, 2013. Accessed online Jan 21, 2019. https://www.irishtimes.com/news/environment/bitter-dispute-over-turf-cutting-on-raised-bogs-has-gone-on-now-for-far-too-long-1.1482085

Woodworth, P. (2013b) 'Making the Black Deserts Bloom: Bog Restoration on the Brink of Extinction.' In *Our Once and Future Planet*. Chicago Illinois: The University of Chicago Press.

Wikipedia contributors. (2020, March 9). 'Bord na Móna'. In *Wikipedia, The Free Encyclopaedia*. Accessed online October 9, 2019, https://en.wikipedia.org/w/index.php?title=Bord na M%C3%B3na&oldid=944742092

FIGURES

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Figure 1: Collins, T., Goto Collins, R. (2019) *Turbary Traces*: Glasgow Scotland: Collins + Goto Studios.

Figure 2: Egan, T., (unknown) *The View from Lough Boora*. Courtesy of the Bord na Mona Archive.

Figure 3: (1816) *Sphagnum cuspidatum*. Missouri Botanical Garden, Peter H. Raven Library. Accessed April 11, 2020. Suppl.1:v.1: https://www.biodiversitylibrary.org/item/58 Tab XII (Illustration), CC by 2.0.

Figure 4: Egan, T., (unknown) *Peat Being Carted to Market*. Courtesy of the Bord na Móna Archive.

Figure 5: Goto Collins, R. (2020) $Sphagnum\ moss$. Glasgow Scotland: Collins + Goto Studios.

Figure 6: MacDonagh, E., (2002) *Boora Pyramid*. Curated by Kevin O'Dwyer. Offaly County: Lough Boora Sculpture Park Bord na Móna Archive.

Figure 7: O'Dwyer, K., (2002) 60 Degrees. Curated by Kevin O'Dwyer. Offaly County: Lough Boora Sculpture Park Bord na Móna Archive.

Figure 8: Bulfin, M., (2002) *Sky Train*. Curated by Kevin O'Dwyer. Offaly County: Lough Boora Sculpture Park Bord na Móna Archive. Figure 9: Wild, J., (2009) *System number* #30, Curated by Kevin O'Dwyer. Offaly County: Lough Boora Sculpture Park Bord na Móna Archive.

Figure 10: Counihan, A., (2009) *Passage*. Curated by Kevin O'Dwyer. Offaly County: Lough Boora Sculpture Park Bord na Móna Archive.

Figure 11: Madden, C., (2006) *Cycles*. Curated by Kevin O'Dwycr. Offaly County: Lough Boora Sculpture Park Bord na Móna Archive.

Figure 12: Kinane, D., (2006) *Boora Convergence*. Curated by Kevin O'Dwyer. Offaly County: Lough Boora Sculpture Park Bord na Móna Archive.

Figure 13: Scki, N., (2002) A Tree in a Sculpture. Curated by Kevin O'Dwyer. Offaly County: Lough Boora Sculpture Park Bord na Móna Archive.

Figure 14: Collins, T., Goto Collins, R. (2019b) *Reiko Goto with a wind-blown birch tree on Mongan bog.* Glasgow Scotland: Collins + Goto Studios.

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- Figure 15: Cross, J. R., (1990) *The Raised Bogs of Ireland: Their Ecology, Status and Conservation*. Report to the Minister of the Department of Finance. Dublin, Ireland: The Stationary Office.
- Figure 16: Bord na Móna (2015) *The Bord na Móna Biodiversity Action Plan 2016-2021*. Newbridge, County Kildare, Ireland: Bord na Móna.
- Figure 17: The Living Bog online (2020) Welcome page. Accessed 2020, Jan 7. http://raisedbogs.ie/
- Figure 18: Jacob Sturm (1796) *Rannoch rush*, *Scheuchzeria palustris*. Wikimedia Commons. Accessed April 11, 2020. https://commons.wikimedia.org/wiki/File:Scheuchzeria_palustris_Sturm3.jpg Public Domain.
- Figure 19: Imlach, H. (2019) *The High Altitude Bioprospecting (HAB) team launching the helikite*. Kilpisjärvi, Finland: The BioArt Society. Online at: https://bioartsociety.fi/projects/field-notes-the-heavens/pages/hab-group
- Figure: 20: O'Mahony, D (2012) *T.U.R.F. (Transitional Understandings of Rural Futures)*. Limerick City: Gallery of Art. Online at: https://deirdre-omahony.ie/works-and-projects/42-artworks/2000-s/67-turf.html
- Figure 21: Horrigan, M. (2012) *The Hellfire Club*. Askeaton, Ireland: Askeaton Contemporary Arts. Online at: http://askeatonarts.com/publications.html
- Figure 22: Van Dingenen, F. (2017) The Algae Summit: Selected Research Documents. Askeaton, Ireland: Askeaton Contemporary Arts. Online at; http://www.askeatonarts.com/algae-summit.html
- Figure 23: Horrigan, M. (2014) 'What a Feeling', in *Stigma Damages*. Catalogue for exhibition at Occupy Space, curated by Orlaith Treacy. Limerick, Ireland: Occupy Space.
- Figure 24: Arts Council Ireland (2015) Making Great Work: Leading the Development of the Arts in Ireland. Arts Council Strategy (2006-2012). Dublin, Ireland; Arts Council Ireland. Online at: http://www.artscouncil.ie/uploadedFiles/Making_Great_Art_Work.pdf
- Figure 25: Mackey, C. (2013) *The History of the Apple in Ireland*. In *Seed Matters* [2010-2013]. Manorhamilton, Ireland: Christine Mackey. Online at: http://www.christinemackey.info/wpcontent/uploads/2017/03/PUBLICATIONSPORTFOLIO.pdf
- Figure 26: Kennedy, G. (2009) 'The Future of Ice'. In *Contemporary Visual Culture in Ireland*, Spring. Dublin, Ireland: Circa. Online at: https://circaartmagazine.website/issues/?issue=127
- Figure 27: Reynolds, E. (2009) 'I Always Wanted to be a Windmill'. In *Contemporary Visual Culture in Ireland*, Spring. Dublin, Ireland: Circa. Online at: https://circaartmagazine.website/issues/?issue=127

Figures

- Figure 28: Bloom, B. (2016) Breakdown Break Down Workbook 1: Questions for evaluating art that concerns itself with ecology. Ft. Wayne, Indiana: Breakdown Break Down Press. Online at: https://breakdownbreakdown.net/publishing/
- Figure 29: Bloom, B. (2015) *Petro-Subjectivity: De-Industrializing Our Sense of Self.* Ft. Wayne, Indiana: Breakdown Break Down Press. Online at: https://breakdownbreakdown.net/publishing
- Figure 30: Bloom, B., Sacramento, N. (2017) *Deep Mapping*. Ft. Wayne, Indiana: Breakdown Break Down Press. Online at: https://breakdownbreakdown.net/publishing\\
- Figure 31: Crawshaw, F. (2019) *Into the Mountain*. Produced in Lumsden, Scotland: Scotlish Sculpture Workshop with Cairngorms National Park Authority, City Moves Dance Agency, Dance North and Tramway. Online at: http://www.intothemountain.co.uk/commonplacebook/
- Figure 32: de Bath, M. (2019) Images Iarsma/Remnant. From an ongoing (2006-present) residency at the Bord na Móna Ballydermot Works, Bog of Allen.
- Figure 33: Imlach, H. (2019) *Birch Anemometer and Hazel Anemometer*. Artwork from 18 month residency with Flows to the Future. Caithness, Scotland: Royal Society for the Protection of Birds. Online at: https://www.hannahimlach.com/Birch-Hazel-Anemometers.
- Figure 34: Collins, T., Goto Collins, R. (2008-2019) *Plein Air Live at the Botanics*. Clasgow Scotland: Collins + Goto Studios. Online at: https://collinsandgoto.com/portfolio/plein-air-southern-appalachian-forest/
- Figure 35: Collins, T., Goto Collins, R. (2020b) *Sphagnum moss*. Glasgow Scotland: Collins + Goto Studios.
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- Figure 37: Collins, T., Goto Collins, R. (2019) *Notes from the workshop*. Glasgow Scotland: Collins + Goto Studios.
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