

Meadow Meander pedagogy project: developing a 'living laboratory' for Warwick campus. June 2014-December 2015

IATL Strategic Project: Final Report, January 2016

INTRODUCTION

Meadow Meanders are simple maze-like pathways modelled on major ecological features of Earth in meadows, parks, city squares, playgrounds, sports-fields, beaches, moorlands and other open spaces. They combine land art, nature trail, gallery display and immersive performance to produce dynamic and enlivening experience of 'glocal' ecosystem processes. They include environmental puzzles whose playful 'open-secret' solutions can involve a very diverse range of individuals and groups across generations in exploring the ecologies of interacting climates, landscapes and species. As a popular hybrid art form they encourage challenging and enjoyable discovery of ecological connectivity – econnectivity – for all.

Since 2011 Meadow Meanders have been created and tested in Devonshire rural meadows, a former city cemetery in Leeds, an urban ex-airport in Berlin, for a former council-housing estate in Saltaire, West Yorkshire, plus at three linked locations (2014) and on the International Digital Lab lawn (2015) at Warwick in a collaboration between Warwick Arts Centre, University Estates Department, Stan's Cafe (Birmingham) and Earthrise Repair Shop (Devon)¹. They have also been included in two major international theatre and performance conferences. All eleven meander iterations were based on one of three different versions of the same ecological 'model', whose pattern loops back on itself severally before ending back where it starts: a physically closed circuit but perceptually a radically open system. On exit, a small 'Open Secret' pack provides information about the modelled ecological system and human bearings on Earth. Over c1400 people have used the meanders and feedback indicates ecologically widely diverse and dynamic experiences with potential mild-to-major transformative effects. Their combination of somatic ecological pleasures and gently challenging cognitive puzzles of coded environmental facts offers an in-between zone that can uniquely engage individual disciplines even as they overlap and interact. So the designs of Meadow Meanders offer highly accessible sites for developing innovative pedagogies and curricula, multi- to inter-disciplinary research methods and trans-disciplinary explorations.

Project outline, phases and outcomes (from Application)

The Meadow Meander pedagogy project evolved a series of unique outdoor ecological puzzles for use in teaching, learning and research across University disciplines. Following recommendations outlined in *The Building Bridges* report (2013)², four different Meadow Meander installations were created as 'living laboratories' that provided opportunities for accessible ecological experimentation by University students, staff, conference/symposium delegates and local publics, including pupils from Coventry schools, plus a range of other campus visitors.

¹ Meandering and meander making project, created by Baz Kershaw in 2011. See: <http://performancefootprint.co.uk/projects/earthrise-repair-shop/>

² Ria Dunkley, *Building Bridges for Education for Sustainability*, University of Warwick, 2013.

It achieved this through three 'phases' of work, initially described as follows:

Phase 1: Pilot our 'eco-pedagogy' methods with a group of Warwick students, local primary and secondary schools and adult community groups in 2014;

Phase 2: Train a further group of Warwick students in the academic year 2014-15 so that we can offer further public trails and workshops;

Phase 3: Consult with the student group and further Warwick staff about designing an interdisciplinary module on EfS for academic year 2015-16.

In practice these inevitably were developed and elaborated in response to practical conditions and as the project's aims and methods evolved.

Accordingly the project outcomes were refined and extended beyond those initially proposed, though the focus overall mostly adhered to its original purposes in:

- engaging with actually existent eco-systems in order to raise understandings of endangered and successfully surviving animal species on a local-global scale;
- recruiting students to develop new meander methods and pedagogies to engage university peers;
- training by the first student group of a further group of students to become workshop leaders;
- developing a module on Education for Sustainability which uses meadow meanders as an integral aspect of its teaching and learning.

In practice, then, the project itself met the outcome description for that module by creating 'a multidisciplinary pedagogic resource; a novel cross-disciplinary research lab; a non-threatening environmental "window" on species extinctions/survivals, climate change dynamics and twenty-first century futures.'

Hence the format of the Application Form was especially helpful for this project as it enabled a focus on the conditions of the learning environments required for an open-ended investigation. This matched the deliberately indeterminate 'nature' of meadow meanders and 'meandering' itself as an ecological feature, allowing the project to assume the value of an inevitable 'lack' of knowledge necessary to an effective address of multi-, inter- and trans-disciplinary creative processes. So what the participating students did *not* know, together with what the project team did not know about *them*, potentially placed everyone involved close to an 'equal footing' from the outset.

Thus the Meadow Meander project application provided more of a wish-list than a set of specific aims, objectives and outcomes, though all three were more or less implicit – and sometimes explicit – in its different parts. This report aims to indicate its overall outcomes by: (a) describing the three Phases in some detail, (b) specifying key specific aims/objectives of their various practices, (c) defining the varied pedagogies evolved by those practices as actions; (d) commenting variously on the functional and strategic implications of each 'set' of practices for the evolving project; (e) briefly noting aspects of the original proposal that were not achieved. In conclusion it indicates the already achieved and prospective 'legacy and 'dissemination' of the project and suggests how it exemplified IATL's core concerns with 'innovation, interdisciplinarity, inclusiveness, internationalism and diversity' by drawing on the application's statements under those headings. More detailed operational procedures are presented through project documentation in the appendices.

THREE PHASES

Phase 1: Educational workshops for local young people, plus meadow meander 'minder' training of Warwick students and staff (June-August 2014)

The timing of this phase was designed to take advantage of the availability of secondary school pupils in the final week of their summer term, plus the hosting by the School of Theatre, Performance and Cultural Policy Studies of the 2014 International Federation of Theatre Research Congress (IFTR) attended by 600 international scholars and practitioners. As part of the Congress arts programme, STPCPS part-commissioned the creation of three ecologically linked meadow meanders in collaboration with internationally acclaimed, Birmingham based performance group Stan's Cafe, Warwick Arts Centre and the University Estates Department.

In June 2014 two doctoral students were recruited as research assistants with the project – Hanzhi Ruan (Centre for Cultural Policy) and Emily Temple (Centre for Education) – to create, with PI's Baz Kershaw and Rachel King, a team of four practitioner-researchers. In early-July the first of the three Meanders was created on Tocil Field, with Estates staff and James Yarker, Director of Stan's Cafe. The installation was a 60x20 metres grassy rectangle based on Mercator maps of the world and its meandering pathway modelled a global ecological feature. Alongside the path were twelve low plinths for Kilner jars of various sizes containing pulses or seeds that represented different animal species, each placed on the grassy 'map' close to their actual habitats. The number of pulses/seeds in each jar exactly matched population statistics of the animal species in a range of environments from tropical rain forest through deep-sea ocean to arctic icecap.

In mid-July meander workshops were provided for four Coventry-area secondary schools, run by researchers Rachel, Emily and Hanzhi. Each involved fourteen to sixteen school pupils (Key Stage 3) plus two teachers for 5+ hours, the first half in WAC's Helen Martin Studio and the second on Tocil Field and in the meander. The pupils were welcomed as fellow 'researchers' and invited to focus on particular aspects of the meander, including its many textures and sounds. The indoor session explored their personal sense of everyday travel routes by making rice 'maps' plus drawings on projector transparencies. The outdoor session explored the meander through exercises in various ways of encountering/engaging its environment. Each pupil then took a Kilner jar with 'animal' contents into the meander for a game that placed them in the correct habitat on its Mercator 'map'. They worked in groups to produce and perform a poem in the meander pathway. Feedback from pupils and teachers overall was strongly positive. The workshops were fully documented in a range of media.

In late-July two further meander versions were made for the IFTR Congress, one alongside Tocil Lake, the second near Heronbank Student Residence. As part of the IATL project, 40 Warwick student volunteers were introduced to the meanders, and twelve were trained to set up and de-rig them during the six days of the event. Several students also were trained as Meander Minders alongside an international group of 20 Congress delegates, their task being to introduce all comers to meadow meandering and elicit their responses to the experience. Around 350 conference delegates, plus Warwick staff, campus visitors and general public, used the paths. About 200+ contributed verbal responses/comments and c180+ produced permanent

feedback items. Countering the 'closed' design of the meander pathways, the feedback clearly indicates the paradoxically open-ended and highly diverse affects that they foster individually and collectively.

In mid September the Tocil Field meander was re-opened for a final half-day to university members and campus visitors. A display of documentation materials from the schools workshops and IFTR Congress meander events traced key practices of the project to date. Around fifteen people, four of whom were re-visiting, used the meander. All contributed verbal feedback and seven produced permanent records. A few lingered for longer conversations, making a relaxed closure just a few weeks before the meander became building site for an innovative new Teaching and Learning Centre.

PhD student research assistant training: pedagogies of meandering.

Overall aim: to devise and provide opportunities for developing new pedagogical strategies, primarily by hosting/preparing/guiding diverse groups to engage with meadow meandering: specifically local young people, community groups, Warwick students and congress/conference delegates.

Pedagogic methods:

Adapting existing skills to meander practices, principles and creative/ethical demands, plus review of skills and their past/future applications.

Registering and evolving aims and principles of meadow meandering, such as: meander-users interactivity; dynamics of choices/restrictions; individual movement & group synchronicity; route flows & animal display diversions; somatic experience & 'econnectivity'; cognitive mapping & 'econnecting'; engagement & recalling reflective/reflexive responses; etc. – all considered as 'components' of an immersive simultaneity of multiple meandering experiences.

Understanding and evolving group dynamics of people in environmental meandering practices, initially with school students age 10-14, to develop: skills of interaction, observation and responsiveness.

Understanding and evolving dynamics of indoor/outdoor learning, e.g. enclosed workshop teaching spaces (Helen Martin Studio, WAC); grassy open places (Tocil Field); skills of somatic/cognitive awareness; dynamics of psycho-somatic experience; multiple performance modes and performativity.

Devising, designing, implementing, analysing, displaying documentation methods for teaching/learning of meandering practices, including especially interactive feedback methods, using: digital media ranging from high-quality film cameras through smart-phones and other mobiles to standard audio recorders, plus non-digital media of many kinds from crayons through notebooks to meadowland materials.

Training in 'meander minding', i.e. facilitating meander uses for visitors, initially with project-volunteering conference delegates and select student-support volunteers of IFTR Congress, by – more or less obliquely – introducing: pathway modelling/basic 'rules' of system, playful puzzle/mystery qualities of design, modes of travel/'journey', wayside 'creature' features, exit-sharing opportunities/feedback methods and processes.

Comment: In effect this span of research assistant competences produced an – initially implied – network of reference points for evolving more detailed pedagogical practices and principles that could adapt flexibly to a widening range of user communities throughout the project. Hence, each ‘set’ of participants collaborated in generating – primarily through practice *then* reflection – particular skill-sets and understandings according to their individual and collective educational histories. In turn this enabled development of epistemologies of teaching/learning appropriate for each group within a spectrum of pedagogical practices ranging from, for example, multi- through inter- to trans-disciplinary ‘frames’ of reference.³

School workshop pedagogies (Key Stage 3: age 10-14)

The basic conceit of the workshops was to explicitly position the school pupils as researchers investigating dynamically novel environmental uses of common open spaces and places, such as meadows, playgrounds, and so on.

Aims: to introduce young people to the nature, uses and select purposes of public meanders; to find ways to look at the world from different angles; to explore personal and group interactions with meadow (and other) meanders.

Helen Martin Studio:

Pedagogic methods: exploring the qualities of indoor space (individual perception and collective world-mapping); using personal experience as base for understanding/engaging with pathways/meandering; drawing on everyday routine pathways as meander ‘proto-models’; modelling personal pathways as rice-maps and transparency-patterns; layering personal pathways to produce unique patterns of flow; expanding pathway terrains/perspectives from local to global.

Tocil Field and Meadow Meander

Pedagogic methods: scaling-up rice-maps using long blue ropes and walking them as meanders; questioning what the grassy meandering pathway might be (performance space/habitat/ecosystem/etc.); exploring the path in different modalities (follow-my-leader/individually varied speeds-rhythms/special focus) with feedback collectively/individually; understanding meanders as Earth-related eco-puzzles with ‘open secrets’ inviting interpretation; populating the meander with animal species (represented by seeds/pulses in jars); imagining/naming individually allocated species; positioning species on the meander as global map; figuring locations of animal/seed/pulses as clues to meander model (quiz questions give clues); animating meadow through collaborative performance poem sequences in favourite locations; debating what the meander ‘open secret’ might be.

Three IFTR meanders and meadow minder pedagogies

The chief purpose of these short workshops was to introduce forty Warwick students and an international group of IFTR delegates to the practice of successfully running three meadow meanders for visitors.

Aim: to provide research assistants with substantive experience of ‘meander minding’ for a wide spectrum of academic and other visitors.

³ See: Baz Kershaw & Helen Nicholson (eds) *Research Methods in Theatre and Performance*, Edinburgh: Edinburgh University Press, 2011, pp. 1-13.

Pedagogic methods: on entrance – presenting invisible paths as always loopy in mimicking Earthly ecologies; withholding meander information explicitly to conserve an open secret; on exit – inducing desire to openly reflect on affects/effects of meandering as such; convincing users to continue that practice while keeping an open secret.

Comment: The overall pedagogic function of this phase was to establish for students (including congress delegates) the practical ‘ground rules’ of using, and potentially making, the *ecological value* of meadow meanders. Most particularly by evolving an understanding that through meandering some inevitable *lack* of knowledge – or ignorance – is likely an advantage to improving ecological awareness as a basis for ethically sustainable living. This lack being an inevitable component in affective/effective multi- and interdisciplinary research processes.

Notes on changes: Contact was made with local community groups – such as allotment clubs, amenity groups, etc. – but unfortunately the timing of the workshops did not fit with their existing commitments.

Phase 2: Development of practices and pedagogies October-June 2014-15

Drawing on initial analysis of Phase 1 meander activities, in November 2014 a call was sent to all undergraduate students for an Introductory Workshop on meadow meandering. This produced a strong response, with over 40 expressing interest and 30+ attending from 19 different degree programmes. The four-hour session used the meadow meander ‘Open Secret’ information pack as a puzzle for participants to work out how it might figure in the design of meanders, followed by the pathways exercises from schools’ workshops. Both explored the key project themes of knowing/ignorance and generating contrasting perspectives on planet Earth. Further project concepts were introduced in presenting details of the Term 2 eight Workshop series. Divided into two stages, the plan included recruitment of an initial undergraduate group which would go on to train a smaller group of postgraduates in meadow meandering principles and practices.

Twelve students were able to commit for all eight workshops, representing Law, Physics, Biological Sciences, Chemistry, Economics (4), Philosophy, Mathematics, Warwick Business School, English and Theatre Studies, English and Comparative Literature. In January a further call to postgraduates and undergraduates produced nine sign-ups, of who five were available for the final five workshops, representing Economics, Life Sciences, Education, English and Comparative Literature: a total of 17 students from 12 disciplines.

In January-February Term 2 the first three workshops with the undergraduate group explored meander practices, principles and design. Initially by focussing on mapping exercises based on student personal histories plus evolving shared conceptual understandings of ecology in relation to their individual disciplines, then through investigative site visits that traced the remnant pathways of the 2014 Tocil Field and Heronbank meanders to establish their key components, including animal/foodstuff displays. Finally students matched actual meander images and their creative components to produce descriptions of the project overall, followed by Baz Kershaw’s evolutionary account of meadow meandering ‘principles’, especially uses of ‘ignorance’ and ‘open secrets’ as playful aspects of meander making. Overall student responses were very enthusiastic, engaged and intelligent.

The five workshops in February-March included a preparatory session for new group members run by the team. A whole-group session followed in which the u/g group

taught meandering practices, components and principles to the newcomers. Also James Yarker, director of Stan's Cafe, explored the art of adding imaginative statistical displays to meanders. The remaining workshops focused on devising processes and principles for designing 'alternative' meanders. The students formed four groups, each with a different mix of disciplines. Their projects involved identifying and researching globally spread locations for four new meanders, each based on different eco-systemic models. This aimed to embrace diverse scales of actual spaces and places that could stimulate outline designs for innovative types of meander, to include locally angled eco-statistical (or equivalent) displays. In the penultimate workshop each group presented proto-designs and Stan's Cafe co-director, Craig Stephens, joined the team to assess and give feedback advice on potential improvements.

The concluding presentations revealed a remarkable imaginative reach, as the location choices of each group opened up fresh perspectives on the potential of meanders to critically model and animate very diverse ecological 'sites'. Group A presented a 'Meddle Treadle' flow of invasive species between and across oceans and continents, investigating traces of interactive patterns between human and other animals on a range of geo-scales and intensities. Group B focussed on 'Footprints' of human species as they spread from Africa, part tracing older animal migration routes, part wandering through contemporary trans-mediated urban landscapes, exposing complexity in current rights of movement for human/animal species. Group C pitched an environmental conceit called 'Tree Lungs', in which the Pangean world became a floating quasi-jigsaw puzzle of multiple conjoined continents, overlapping historically with contemporary woodlands imagined as 'cathedrals' to global deforestation traces. Group D explored ecological 'Sea Change' through Loc Nur, a huge dried up salt lake in northwest China. Tracing human effects of the 20th century damming of its river sources by State decree alongside rising climate-change ocean levels, these comparative soundings resonated with its popular name: the Earth's Ear. Contrasts between the four experiments opened up prospects for splendidly alternative versions of meandering pathways for the 21st century.

Phase 2: key pedagogies and methods – workshop series

These workshops followed the project's basic conceit of explicitly positioning the students as researchers exploring further investigations of dynamically novel environmental and ecologically engaged uses of common open spaces and places, such as meadows, playgrounds, parklands, and so on.

Overall Aims: to undertake a collaborative workshop series that models key processes of inventing and making meanders; to produce a structural reiterative process which involves students inducting peers to meander practice-and-design reflexivity; to incorporate critical revisions of established meandering factors/vectors plus functions of ignorance/knowledge in constituting disciplines as such; to engage radically with current epistemologies/ontologies of meander practices and principles in creating novel meandering designs.

Specific objectives of pedagogic practices/methods:

Phase 2a Aims: to encourage group cohesion via disciplinary differences plus contiguous interests; to engage the remnant components of past meanders as clues for future revivals and renewals; to explore the components and principles of meandering as always emergent factors in its practice.

Phase 2a Pedagogic methods: mapping personal geographies beside existing disciplinary connections; co-constructing common concepts as ecological vectors relating different disciplines; tracing collective orientations through past spectral meandering pathways; compiling crucial meander components as staged routes to reflexivity; imagining labelling of meander photos as pointers for eco-tweaking pathway lacunae; factoring ignorance as integral to meander knowledge/understanding.

Phase 2b Aims: to integrate groups through nascent meander alternatives; to explore withheld animal statistics as tools for altering ways of knowing; to discover ecologically diverse models for meandering; to present alternative meanders as modelling fresh environmental futures.

Phase 2b Pedagogic methods: deliberating preliminary projections of challenging meander ecologies; discriminating knowledge lacunae for enrichment of prospective meandering innovations; evolving perceptual perspicacity through focal precision on model environments; analysing influence of emergent global conditions on dynamics of model designs; translating conceptual revisions of modelling processes in light of materially practical plans; evaluating contrasting sites as sources of refinement for alternative alternatives; devising varied protocols for interpreting critical environmental evolutions shaping the chosen locations/sites; creating vary-layered multi-media presentational frameworks/tropes for projecting ecologically responsive remediation of future-oriented meandering models.

Comment: The open-ended pedagogic vectors of the workshop series were designed to provide, initially for Phase 2a students, a skeletal sense of the 2014 meander practices that was sufficient in exposing the basic principles of meander making, operational practicalities and subsequent variety of affects/effects as reference points for 'alternative' design processes. Then in introducing Phase 2b students to meander-making methods, the Phase 2a group had a 'good-enough' grasp of the basic *simplicity* of ecologically-based meandering procedures to present a clear general ur-model of meander design and practice, besides their nascent ideas for alternative models and potential evolutions. Stan's Cafe's James Yarker added pragmatic questions of 'animal' equivalent path-side displays, evening-out the two groups' differences. Sub-groups focusing on selected alternatives quickly emerged, each with increasingly specific ecological models that open fresh dimensions of meandering as emergent exploratory research method. Because, for each model, lacunae were prominent features confirming ignorance as a critical factor of understanding/knowledge 'results'.

The overall pedagogic function of this phase was to extend for students the forever emergent practical 'atmospheric' principles of imagining, and potentially creating, the implicit *ecological values* of specific meanderings as such. Most particularly by further confirming a sense that some inevitable significant *lack* of knowledge/understandings – the more intense the better, perhaps – is almost certainly an advantage to improving ecological awareness as a basis for ethically sustainable living. This being likely a crucial factor in achieving trans-disciplinary research processes.

Note on changes: A multi-disciplinary advisory group of eight academic colleagues was formed during Term 1 (2014), with membership representing science, education, humanities and arts. However, start-of-year pressures of work and other commitments of the team caused delays to the Introductory Workshop, making it necessary to postpone the Phase 2 workshops into Term 2 (2015), by which time it

proved difficult for most team members to attend any sessions.⁴ However, Susan Haedicke (STPCPS) and Jonathan Heron (IATL) were able to visit key workshops and attend the symposium. The notional plan to mount workshops for other students/tutors and 'local publics' proved impractical given the intensive time demands of the core workshops.

Phase 3: Module consultation and design

Term 3 plans to model new meanders based on student proto-designs, potentially linked to campus trails, proved unfeasible as University building projects and related works severely reduced availability of appropriate sites. However, a request to use the lawn overlooked by the International Digital Lab (following a failed one in 2014) was very kindly agreed by WMG in March 2015. This was just in time to make an 'outline' meander possible for the project's concluding symposium in mid-June, then to include it as a University 50th Anniversary feature during July's degree ceremonies week. Most project students gained the advantage of their first full meander encounter alongside Symposium delegates and Warwick staff, plus remunerated training and experience in running an experimental meander with varied publics was available in July for 4/5 of them.

The Symposium title – 'Evolving Eco-creative Pedagogies in Living Laboratories' – indicated a process that the event aimed to reproduce through an experientially reflexive program. Hence the first hour involved the thirteen invited delegates, seven project students plus project team, walking the nascent IDL meander and figuring how animal statistical display and meander global geography could variously make environmental sense. Two brief introductions to meander principles (Baz Kershaw) then eco-pedagogy and living laboratories (Ria Dunkley) provided contextual framing for the two main interactive sessions: first students reported on inventing their own meanders as learning process (facilitators Rachel/Hanzi), followed by a critical practice review of the 2014 school's workshops (Rachel/Emily/Baz). Both sessions elicited especially lively responses from delegates keen to explore how their earlier meander experience refracted with pedagogic processes in both sets of workshops, and how those related to points of meandering principles and living laboratory practices aired earlier. A final whole group discussion punctuated by brief invited critical-analytical observations by performance practitioners Susan Haedicke (Warwick) and Emma Mehan (Coventry), plus Kershaw and Dunkley, was focussed, informative and energetic in reflecting on the whole day.⁵

In July the IDL 'grassy meander' provided an exceptional opportunity for extending and testing the earlier findings of the project in innovative ways. As a relatively small installation in a high profile and attractive central location on campus its gradual evolution through June into July generated much curiosity from a wide spectrum of

⁴ In retrospect it is notable that most of the advisory group did not visited the September 2014 special meander opening, which was largely designed for their and other colleagues benefit. Also, in the following Term the team was careful to keep the group fully informed of the issues preventing the planned start of Phase 2. Perhaps this indicates wider issues for engaging staff from the full range of disciplines in inter/trans-disciplinary projects by arts and humanities.

⁵ List of symposium delegates: external – Dr Lesley Delminico (Grinnell College, Iowa), Dr Ria Dunkley (U. of Cardiff), Prof Tony Jackson (U. of Manchester), Dr Emma Mehan (U. of Coventry); internal: Prof Joe Winston (Centre for Education Studies), Dr Ruth Leary (Cultural Policy), Julie Hudson (PhD student English), Joel Cardinal, Judith Kilgallon (Estates Dept), Dr Dr Becky Fisher, Philip Gaydon, Jonathan Heron (IATL), Susan Haedicke (Theatre and Performance).

people. In June six students were recruited as ‘minders’⁶: four from the Workshop Series⁷, two from the Introductory Workshop, plus three others as admin/promotion/technical support team. Following a half-day training session, for seven days students facilitated the first stand-alone meander featuring a ‘do-it-yourself’ system for visitors, used by an estimated 200-250+ University staff/students, degree ceremony guests, conference delegates and off-campus meandering folk.

Phase 3: key pedagogies and methods – Symposium & IDL meander

These activities explicitly positioned the students as researchers both presenting and facilitating novel approaches to environmental and ecologically engaged participatory performance making. To achieve this, the day-long symposium included (a) project students as collaborating delegates directly giving accounts of meander design processes and results to varied disciplinary experts, reflexively coupled to (b) project researchers analysing schools workshops, which produced (c) methods adapted to students’ devising experiments for the designs they presented. Likewise, the IDL meander cast students as researcher-practitioners who were reflexively facilitating monitoring of its DiY methods, whilst also performing as trained minders for a selection of visitors.

Overall aim: to test development and outcomes of pedagogical strategies achieved by the project through: (a) formal presentation of main practices and methods to teachers, researchers and policy project champions from Warwick and beyond; (b) experimentally involving student participants in new approaches to meander making, presentation, operation and evaluation.

Further long-term objectives: to produce a postgraduate module design which uses meandering/meadow meanders as sources for multi-/inter- and trans-disciplinary environmental education and sustainability teaching/learning; to create an accessible project archive that will facilitate teaching/learning and research in meandering/meanders and related installations for ecological/environmental sustainability understandings and practices.

Symposium: specific objectives/pedagogical practices

Aims: to consider how ‘sustainability’ can become a new normal of cross-curricular education in HE internationally; to review how curricular innovation can provide students with ‘sustainability’ practices relevant to specialist subjects; to explore how participatory performance can critically access ecological systems on multiple scales through everyday experience.

Pedagogic methods: investigating experiential processes and aesthetic/ecological structure of a (global) grassy meander with animal statistics display; engaging dynamics between meandering affects/conundrums and structuring eco-pedagogic laboratories; encountering/evaluating systemic ambivalences as key vector of experimental meandering designs; discriminating varied modes of meander ‘econnectivity/econnecting’ for creation of multi-generational sustainability workshops; constructing/conducting meandering eco-forums with diverse panellist experts through democratic ethics.

⁶ One as a reserve.

Comments: The combination of practical meander experience initially led by the students, followed by detailed discursive comments and questioning by delegates responding to the presentations, produced shifting synergies between ignorance and expertise resulting in a notably critical/collaborative ethos on the day. That allowed for a final forum in which 'feedback panel' contributions from the four, internal/external respondents could be incorporated into the discussion as and when they were appropriate. It is tempting to note this as a form of socio-professional quasi-econnectivity fostered by serendipity. But a more likely source was the overall exhaustiveness of proceedings created by the lively continuous commitment to clarity of expression by everyone concerned.

IDL Meander: specific objectives/pedagogical practices

Aims: to create a small scale National Geographic/oval 'grassy meander' on the International Digital Lab lawn; to devise a 'do-it-yourself' system of meander visitor guidelines and feedback processes, including a simple website for visitor use; to train 4-5 IATL pedagogy project students in 'minding' and monitoring the meander; to recruit and induct three further students as an administrative/publicity/technical support group.

Pedagogic methods: adapting to immersion and ambivalences of grassy meandering in highly public location; assisting visitors when entering and exiting the meander; observing diversity in modes of travel and engagement by visitors; monitoring do-it-yourself system of meander guidance and feedback; recording reactions to and interpretations of meander routines, notable events and visitor reactions.

Comments: The meander was open 10.00am-6.00pm for seven days, 2.5 of which had rain, mostly heavy. The student 'minders' were present for one hour at the end of each day (1.5 hours on changeover days). Using data from four sources – minder records/visitor feedback/take-away instruction cards & 'open secret' envelopes – estimated visits over 5.5 days = 200-250+. Pathway wear and tear plus visitor creation of additional meander paths possibly suggests more. However, written/verbal feedback – at just 10% – was disappointing, though very positive in its responses overall. The student minders' feedback indicates valuable critical learning from meander design innovation and experimental access systems. The support team produced workable digital prototypes of pre-visit 'inductions' for DiY meanderers, using social media and blog-site, contributing exceptionally to visitor numbers. In these respects the operational and public profiling of the IDL meander added promising future prospects for the project's core purposes.

Note on changes: The plan to form a group of student 'workshop leaders' and tutor advisors for involvement in designing and testing development of an interdisciplinary p/g EfS module proved premature at this stage in the project. However, the Symposium and IDL meadow meander project produced significant preliminary reference points and inspiration for its design.

P/G teaching module and project archive

In October-November 2015 Dr Jonathan Heron and Baz Kershaw worked on drafts of the curriculum for the module. The final version – submitted in December 2015 titled as Experimental Ecologies in Practice – has three Phases: 1. draws on research and practices in ecology, sustainability and environmentalism for 'unlearning' humanistic and anthropocentric perspectives using critical concepts/practices such as 'meandering', 'greening', etc.; 2. engages practically with active ecology through methodological and epistemological strategies discovered by

honing the locational techniques of making and refining 'meander/meandering' as diverse environmental laboratories or test beds ; 3. develops student-led projects which use 'meandering/meanders' to pursue transdisciplinary exploration for ecologically sustainable practices in workshops, archives or otherwise dynamic sites (including the module meander), with results presented for assessment individually or collaboratively as appropriate.

Preparatory development of the project archive was done in October/November 2015. Work to organise, catalogue and store its materials continued in January 2016 and archivists Susan Brock and Tracy Cattell will assess a date for completion as soon as it becomes practicable.

LEGACY AND DISSEMINATION

The impact of this project on Teaching and Learning in HE

- IFTR meadow meanders visited by c350 international delegates and c80-100 others
 - 50th Anniversary Meander used by c200-250 (mostly University) visitors
 - Project Symposium attended by 4 external colleagues (Cardiff, Coventry, Manchester Universities, and Grinnell College, Iowa), plus 9 colleagues from 5 Warwick departments.
 - Research presentations including the meander project presented by Kershaw at:
 - Department of Theatre, University of Manchester, 10 Feb. 2015.
 - Department of Theatre, Canterbury Christ Church University, 1 July 2015
 - Arts and Media Studies, Norwegian University of Science and Technology, Trondheim, 15 Oct. 2015.
 - Independent Dance, Siobhan Davies Studios, London, 4 Nov. 2015
- Relevant recent and forthcoming publications by Kershaw include:
- "‘This is the way the world ends, not ...?’: On performance compulsion and climate change’, *Performance Research: A Journal of the Performing Arts*, 17:4, 5-17, 2012.
 - “,Wir sind wie...’. Szenarien des Klimawandels, das Belandschaften von Natur und das Wissen der Performance,” in *Ökologie und die Kunst*, Hg. Daniela Hahn & Erika Fischer-Lichte, Paderborn: Wilhelm Fink, 2015, pp. 117-140.
 - ‘Performed by ecologies: How *Homo sapiens* could subvert present-day futures’, *Performing Ethos: International Journal of Ethics in Theatre and Performance*, 4: 2, 2015, pp. 113-133.
 - ‘Projecting climate scenarios, landscaping nature, and knowing performance: on becoming performed by ecology’, *Green Letters: Studies in Ecocriticism*, forthcoming 2016.
 - ‘On PaR: A dialogue about Performance-as-Research,’ in *Performance as Research: Knowledge, Methods, Impact*, eds Bruce Barton, et. al. Publisher TBD, forthcoming 2016/17 (with J. Heron). *Doing Performance Research*, Palgrave Macmillan, forthcoming 2017 (with R. Mock).
- Project archive will be available to all Warwick colleagues when completed.
 - Invited proposal by Kershaw and Susan Haedicke for a pedagogy project to create a three-meander prairie grass installation accepted by Grinnell College, Iowa, for September 2016.

- King and Kershaw will continue discussions with Education Director Brian Bishop (Warwick Arts Centre) to integrate 'meandering offshoots' into the current WAC sculpture trails.
- The new IATL p/g module could include Warwick's partnership with Monash University, i.e. students could present findings to fellow Monash students via the international portal space on campus.

The impact of this project on Public Engagement in HE

- An estimated 150-200 non-university visitors used the four project meanders
- An 'offshoot' project created a fifth community-based meander alongside the River Aire in Saltaire, West Yorkshire on 11-12 July 2015. Around 40 local ex-council housing estate residents used the meander, plus c40 riverside walkers; supported by AHRC funding as part of Multi-Story Water research project led by Prof Stephen Bottoms of Manchester University. See <http://multi-story-shiplay.co.uk/?m=201507>
- Kershaw and King with Brian Bishop will seek further investment to inspire and support local schools to create their own meanders in playground/playfield spaces.
- Negotiations to incorporate 'meandering' into other on-going 'green campus' projects, such as *Future Foodscapes: Grow Warwick*, will be pursued.
- Funding will be pursued to develop an online Meander Making and Resource Guide 'handbook' to encourage public and HE engagement in meandering through new types of meander design, including potential creation of project materials ('handbook'/powerpoint presentations/etc.) for Warwick academic staff to include in EfS presentations nationally and internationally.

CONCLUSION

Innovation, interdisciplinarity, inclusiveness, internationalism and diversity.

The following main outcomes of the project are derived from the general 'aims' sections of our original application. They indicate potentials achieved by the project under the categories above.

Innovation

The meander/meandering practices established place-based, experiential and experimental outdoor 'sites' especially useful in developing new environmentally-oriented curricula, pedagogies and modes of assessment in Higher Education.

The unique and site-specific nature of meander/meandering installations enabled undergraduate and post-graduate students to evolve new pedagogical models and methods appropriate to their disciplines.

The meanders/meandering produced an environmentally resonant opportunity for the multidisciplinary development of EfS and 'eco-pedagogy' by creating four 'living laboratories' on campus, thus constituting exceptional opportunities to extend open-space, student-led and ecologically responsible research learning programmes.

Interdisciplinarity

The outdoor opportunities provided by meanders/meandering offered students an experience of immersive performance ecologies that fostered interdisciplinary heuristic learning processes and hermeneutic investigative methods potentially relevant to all disciplines.

The highly accessible environmental and ecological dynamics of meanders/meandering reinforced 'inquiry-led' education and 'creative learning' relevant to all students and staff by exploring and evolving pedagogic methods that can be easily incorporated into different disciplines.

The interdisciplinary potential of meanders/meandering is inherent to their participatory qualities, in which especially accessible somatic, affective, analytic, diagnostic and other learning modes intertwine productively.

The meander/meandering designs can be adapted and evolved exponentially to suit specific learning agendas and/or practice-based explorations across and between disciplines as their basic performance mode is transdisciplinary.

Inclusiveness

The meander/meandering model provides for especially convivial sites through which students and staff could connect with a very wide range of communities, including primary and secondary schools, adult special-interest groups, expert groups of many kinds and so on.

The meander/meandering model can be easily 'overlaid' with a very wide range of data sets (i.e. animal/plant populations, topographies, weather events, etc., and much more) drawn from sources especially relevant to multiple special interests and therefore greatly varied user groups.

The basic simplicity of meanders/meandering can embrace pleurably challenging environmental puzzles that have profound ecological resonance, hence like other mazes, labyrinths and related participatory 'puzzles' they have unusual potential for high accessibility ratings and widespread popularity.

Internationalisation and diversity

The meander/meandering practices provide immersive performances that can create fresh and enlivening experience of local-global ecosystem processes, thus they produce a rich learning context for a great diversity of people 'to engage in activities which enhance their international and intercultural awareness'.⁸

The local-global ecological features of meanders/meandering models can offer all people uniquely 'international' opportunities to engage past and current histories of, say, migrations, power dynamics of shifting territories, etc., by evolving contemporary perceptions of the 'natural world' as shaping such movements.

The creative flexibility of meanders/meandering models to incorporate environmental/ecological and many other data sets accords with very diverse educational/research

⁸ University of Warwick Teaching and Learning Strategy (2012)

interests and aims, thus extending the international reach of open-space pedagogical processes and collaborative student/tutor learning methods and methodologies.

Finally: The Meadow Meander project was fortunate to have excellent support from a wide range of University Departments and individual colleagues as well as external participants, not all of which are mentioned above. However the acknowledgement sheet in the Appendices lists the majority of the Warwick based contributors to whom, of course, we are greatly indebted and grateful. But special thanks are due to all the staff of IATL, without whom none of the project could have been achieved, especially with such pleasure.

Baz Kershaw with Rachel King, January 2016.

APPENDICES (pp. 16-33)

1. Short version of original proposal linked to IFTR Congress.
2. Schools Workshop Plan.
3. Student Workshop Series: Preparatory Workshop Plan.
4. Student Workshop Series: Summary of Workshops Plan.
5. Symposium Description and Program.
6. IDL Grassy Meander: Guidelines for Student Minders.
7. Acknowledgments list for IDL Meander & other key aspects of project.

1. Short version of original proposal linked to IFTR Congress.

EARTHRISE REPAIR SHOP

Mend your broken imaginings of Earth

A proposal by Baz Kershaw for

Meadow Meanders and Animal Wonders: A performance eco-installation

University of Warwick, July-August 2014

This environmental amenities research project has two main aims: first, to make a trio of experimental 'meadow meanders' attractive and accessible especially to schools, local community and other groups in and around Coventry, partly by incorporating a new version of a globally successful performance installation by Birmingham's Stan's Café Theatre Company; second, to make them available for use by 600+ delegates attending the World Congress of the International Federation of Theatre Research at Warwick in July-August this year.

Main project collaborators: School of Theatre, Performance and Cultural Policy Studies; Warwick Estates Office; Warwick Arts Centre, especially Education Dept.; Stan's Café; Earthrise Repair Shop (ERS).

1. Meadow Meanders

Meadow meanders combine land art and immersive performance to create fresh and enlivening experiences of local-global ecosystem processes. They are simple labyrinth-like paths modelled on major ecological aspects of the Earth in meadows, parks, beaches and other open spaces. They are presented as 'open-secret' puzzles to involve very diverse individuals and groups in exploring the eco-dynamics of interacting climates, landscapes and species. They function as countryside rambles, slow orienteering, simple mazes/labyrinths, gentle rollercoaster rides, easy-access creative laboratories and more in a popular pastime hybrid art form that encourages enjoyably challenging experience of ecological connectivity for all.

The first meander was made at Earthrise Repair Shop, a performance eco-diversity project set up by Baz Kershaw in a Devonshire microclimate meadow in 2011. A second version was piloted at ERS in 2012 and the prototype recreated for the annual conference of Performance Studies International and LUDUS Arts Festival in Leeds, where it proved very popular with 250+ diverse visitors. In 2013 ERS made a third version through a research project with Berlin's Freie Universität at the former city airport Tempelhof Feld, now a public eco-park. That explored collaborative methods in making meanders, eventually for licensing this new performance genre with Creative Commons.

2. Creative partnership with Stan's Cafe and Warwick Arts Centre

Of All The People In All The World is an internationally acclaimed performance installation by Birmingham-based Stan's Café. It uses grains of rice to bring formally abstract human statistics to powerful and startling life. For the biggest version each rice grain = one person, so 104 tonnes of rice = global population; a standard small version uses 1000Kg of rice. First presented at Warwick Arts Centre in 2003, it has been further evolved in many venues around the world.

The partnership with Stan's Café and Warwick Arts Centre will reinvent the rice show for the trio of current versions of ERS meadow meanders at Warwick in July 2014. *Of All The Creatures Across The Globe* integrates an intriguing puzzle-maze exhibition

of animal statistics into the meander paths. The display will add other edible materials to rice in representing key species and link them spatially to actual habitats on the map projections of Earth (Hemispheric/Mercator/National Geographic) that meander paths model. So they will incorporate two overlapping environmental puzzles to explore: what ecological feature do the meanders represent and what/how are the selected species related to it? Visitor quiz lists will give clues for identifying each species included and their place in the lottery of animal survival. Their selection will be informed by the dynamics of species' future prospects. As these meanders have proven capacity to expose how all ecosystems intertwine whatever their scale (see refs sect. 5), we anticipate nontrivial outcomes for sustainability learning and debate in education and elsewhere. We also expect them to be pleurably challenging, even amusing, to use.

Introductory and/or follow-up workshops to the three *Of All the Creatures...* meadow meanders will be run in Warwick Arts Centre for local schools, community and possibly other groups. An environmental 'exploration-station' will be created, based on indigenous nomad shelters to provide an explicit human environmental theme to the whole event. Potential for including access to meanders for Degree Ceremony guests, university staff and general public will be explored.

3. Three meanders for Warwick 2014.

The three meanders are planned for locations by Tocil Lake western end, at Tocil Field eastern end, and on wild-growth land near Heronbank Student Residence. Each will model a variation of the same ecological feature in circular, rectangular and ovular format, designed respectively for use by 25-35+, 15-25 and 10-15 visitors at a time, and each function differently in the event as a whole. The Heronbank (c50mtr circular version) will include 15 animal species statistical 'exhibits' and conceivably could be available for use any time during the day. The Tocil Field (c60x40mtr rectangular) will include 15 exhibits and access will be restricted by booking at all times. The Tocil Lake (c30x15mtr ovular) will include 30 display plaques that indirectly but clearly identify all species in the puzzle mazes and could be open continuously.

Workshop groups will have a leader/guide and visit 1 to 3 meanders according to age group and time available, and have worksheets/information packs as appropriate. For IFTR, meanders are designed to be self-running except for breaks/early evening, when volunteer delegate/student 'meadow minders' will be in attendance. An Eventbright booking system will moderate conference visitor numbers for all days of the Congress (and potentially earlier days as well). Booked delegates receive an information pack with guidelines for use of the meanders. Feedback for analysis of research results and impact will be elicited from all workshop groups, delegates and further potential users, such as select Degree Ceremony guests, university staff and other groups.

NB A meander becomes a puzzle-maze when users know it represents major ecological features of Earth and its species, but not what they are. All Warwick users can learn what the paths and exhibits represent from information/work packs or a visit to the Tocil Lake meander. They are also asked to treat this information as an 'open secret' so as not to spoil the 'game' for later users. They can share the meander experience with others however they like (including self-made meanders) but please never actually name the features and creatures 'modelled' by the paths.

4. Meander logistics

4.1 Proposed schedule.

Sept 2013 – March 2014: meadow meander areas prepared

March–early-July: meander areas mown and grown

4-7 July: meanders created:

8-11 July: school groups visit meanders + WAC workshop

14-18 July: follow-up workshops in schools

(access: Degree Ceremony attendees/university staff/etc.?)

20-25 July: community groups visit meanders + WAC workshop

28 July-2 August: open to IFTR Congress (& general public?)

3 August: meanders dismantled and mown, as appropriate.

4.2 Staffing. 1. Meander making/maintenance

Project director (BK)/Estates staff/2 student assistants (p/g)

2. Schools/community programme:

Project leader/student assistant(s) (p/g)/admin support (WAC)

3. IFTR Congress

Project director (BK)/2 student assistants (p/g)/10 volunteers/
admin support (WAC/STPCP)

4.3 Making.

Meadow meanders are easy to make and light on resources. Map projection grids of fence posts are set in March/in place through March-August. Tocil sites also require simple cordoning. All three meander entrances display guidelines for use. For IFTR (and possibly earlier?), Tocil Field has small feedback gazebo/booth with furniture, equipment, materials, etc.

4.4. Promotion/opening times/booking system.

Promotion provided through existing University/WAC/Stan's Café channels.

5. Further information.

For ERS visit: <http://performancefootprint.co.uk/projects/earthrise-repair-shop/>

For Stan's Café visit: <http://www.stanscafe.co.uk/project-of-all-the-people.html>

Baz Kershaw (2012): 'This is the way the world ends, not ...?': On performance compulsion and climate change, *Performance Research: A Journal of the Performing Arts*, 17:4, 5-17

Baz Kershaw

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EARTHRISE REPAIR SHOP

North Devon, UK

01769 540100

12 January 2014

Short-form feedback from University of Leeds meander 2012 ... in former City Cemetery.

Open secret. What is this 'open secret'? I think the secret of this project is that there is no open secret! We miss so much of life, of living, every day... My mind and eyes were so much more open walking around St George's today. But I have been walking these grasses for four years. I saw nothing new today but everything I saw was in a new light. **2. Lying down.** I held myself back from lying down in the long meadow grass, so I wouldn't make new paths, but that was my desire – to stack my body on the bodies beneath – to relax, to rest, to enter the space of oblivion and laugh. **3. Gait of delight.** A ladybug crept up my right forearm. I saw a native bee on some vetch. I closed my eyes and was wonderfully cradled on this good green earth, who has her particular way of remembering and renewing and is never the same and needs no cement of firm directions other than the easy gait of delight. **4. Big bear.** I thought of stars in the sky. The big bear came to mind. A wonderful idea to let the grass grow. When I was told what it was, I got it straight away. THANKS for a good hour of my time on a Sunday.

'The importance of developing a **holistic, university-wide commitment to EfS** cannot be underestimated; this includes recognition of how campuses can operate as living laboratories for EfS...'
Ria Dunkley, *Building Bridges for Education for Sustainability*, Monash/Warwick 2013.

2. Schools Workshop Plan.

Meadow Meander School Workshop Plan

<u>Time</u>	<u>Activity</u>	<u>Resources</u>
9.45	Welcome, intros and housekeeping	
9.50	1. Object game... 2. Go, Stop, Jump, Clap plus different levels and speeds (to prepare them for meadow activity) 3. Mapping ourselves onto the space – if the space is a map of the world, where are we from? Where would we like to go?	
10.15	<p>Making pathways</p> <ol style="list-style-type: none"> Group split into A and B A work with mounds of rice B work with sheets of OHP photocopier film As = mark out a pathway that shows an everyday journey you make in the morning Bs = mark out a pathway that shows an everyday journey you make in the afternoon As and Bs join together and then they guess each other's journeys <p>Discussion: What are the commonalties and differences? What is it like thinking of you movements from a 'bird's eye' perspective?</p> <ol style="list-style-type: none"> Turn on OHP and place one of the 'journeys' onto it. Experiment with this by getting them to hold up paper and move around the image. Start to play different journeys on top of each other. What happens now? Have we made a kind of maze? (i) Get the others to stand inside the image at various 'crossroads' and 'junctions'. Generate discussion around patterns, systems, pathways. (ii) Introduce crop circle images – what do we know or think about these? We don't know what they might mean but we know it isn't random. We then use the rice patterns (As) and copy them onto paper. We take these drawings out to Tocil field. Using the rope we split the group up into 3 groups of 6/7. Each group works with 2 rice journeys and they work together to recreate them on a larger scale on the grass. 	<p>AV equipment with slides? OHP Transparencies Plain paper Trays for rice mounds? Rice Ropes</p>

	6. We then get a chance to meander around these rope mazes. Generate discussion about what strangers might think these patterns represent.	
<u>11.15-11.30</u>	Break (RK, HR and ET to collect food jars)	
<u>11.30-12.50</u>	<p>MEADOW MEANDERS</p> <p>RK to lead discussion about the features of the meadow. We will stand at the edge. RK to ask questions about the space such as ‘Is this a performance space?’ ‘What might be about to happen?’ ‘What might already be happening?’</p> <p>Rules of the space – respect for the space is key! Explanation about navigating the space i.e. follow the lay of the grass, go straight ahead at crossroads, stick to the path.</p> <p>Meander 1: Pupils are invited to go on the meadow meander – they just explore it for what it is the first time. Feedback – could be captured through ipod, words etc</p> <p>Meander 2: 4 different instructions are given out to the group Feedback</p> <p>Meander 3: Group members explore using different speeds, rhythms (crawl, slow motion, run, skip laydown) Feedback</p> <p>Meander 4: Introduction of Animals. Each member is given a jar. What foodstuffs are inside? If these represent animals, what would they be? They then enter the meadow again, placing them on the corresponding plinths.</p> <ol style="list-style-type: none"> Put them in and walk out Go through and look at each – any idea what’s happening? Quiz sheets are given out – work in pairs. <p>Feedback</p>	<p>3 Ipods (sound recorders) 19 clip boards and pens Post it notes 5 copies of the 4 instructions Animal jars Quiz sheets</p>
<u>12.50</u>	<u>Lunch</u>	
<u>1.30-2.30</u>	<u>Recreate the meadow in HMS</u> Groups are split into 3	OHP Ipods

	<p>RK, HR, ET to work with each group. They have a collection of the feedback from the meadow meanders.</p> <p>We work with them to create a sound poem that will be no more than 2 mins in length. Record onto ipods</p> <p>Played back to the whole group with music.</p> <p>Stand in the 'virtual meadow' where they think it should be performed.</p> <p>We watch back and give feedback.</p> <p>Discussion of the day – what do we think is the 'open secret'?</p>	<p>Speakers for music or AV? RK to get music options</p>
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3. Student Workshop Series: Preparatory Workshop Plan.

Meadow Meander Preparatory Workshop

<u>Time</u>	<u>Activity</u>	<u>Resources</u>
11	<p>Welcome, coffee/tea and intros</p> <p>Sign in sheet</p>	<p>Organise catering for 30 people</p>
11.20	<p>1. Name game</p> <p>2. 'The sun shines on' game ...</p>	
11.35-12	<p>Open Secret</p> <p>Students are put into groups of 4/5 and are each given the 'Open Secret' envelope.</p> <p>We explain that they are a unique group - no-one else has ever been given an Open Secret without having meandered through one of the meadows.</p> <p>We explain how the 'Open Secret' works and we get them to discuss, briefly, about the paradox at the heart of an 'open secret' (this sets up the tension between knowing/ignorance which we will come back to later and next term)</p> <p>In the groups, students are invited to open the envelope and peruse the information. Using this knowledge, they then have work out how this material related to creation of the meadow mazes across campus.</p> <p>We are interested to see if they work out that the ocean currents were translated into the 'pathways' of the maze.</p> <p>Once they've come up with their theories, we then feedback and share.</p>	<p>30 Open Secret envelopes with info</p>

<p>12-12.40</p>	<p>Making pathways</p> <p>Following on from the previous discussion, we then introduce them to an exercise we did with the young people to help them to introduce the idea of pathways</p> <ol style="list-style-type: none"> 7. Group split into A and B A work with mounds of rice B work with sheets of OHP photocopier film As = mark out a pathway that shows an everyday journey you make in the morning Bs = mark out a pathway that shows an everyday journey you make in afternoon 8. As and Bs join together and then they guess each other's journeys <p>Discussion: What are the commonalties and differences? What is it like thinking of you movements from a 'bird's eye' perspective?</p> <ol style="list-style-type: none"> 9. Turn on OHP and place one of the 'journeys' onto it. Experiment with this by getting them to hold up paper and move around the image. Start to play different journeys on top of each other. What happens now? Have we made a kind of maze? 10. (i) Get the others to stand inside the image at various 'crossroads' and 'junctions'. Generate discussion around patterns, systems, pathways. (ii) Introduce crop circle images – what do we know or think about these? The pathway may appear random but we know they signify something. 11. Generate discussion about what strangers might think these patterns represent. <p>We could show them the 'earthrise' image as a way of emphasising that the whole point of this project is to look at the earth from different perspectives. We are learning <i>about</i> the Meadow Maze, <i>through</i> the Meadow Maze.</p>	<p>OHP Transparencies Plain paper</p> <p>A3 Paper for Rice Rice</p> <p>Crop circle images and Earthrise images</p>
<p><u>12.40-1</u></p>	<p>Discussion of the project</p> <p>In the final part, we gather students around the projector and we present the key ideas of the project, outlining their involving etc</p> <p>Time for questions</p>	<p>PowerPoint presentation</p>

3. Student Workshop Series: Summary of Workshops Plan.

Meadow Meander: Summary of Student workshops (Phase 2a and 2b)

Workshop	Aims	Activities	Location
1 21 st Jan	<ul style="list-style-type: none"> To meet fellow group members To introduce the Meadow Meander background and current project To explore the different disciplines studied by the group To understand why students were interested in doing this project 	<p>Introduction to Phase 2a students</p> <p>Name games to get to know each other</p> <p>Details of the project Overall structure and aims Consent forms filled out and followed by questions & answers</p> <p>Mapping activities in the space to establish: a) where students are from in the world b) where they are in Warwick campus i.e. departments The aim of this activity is to discover connections between our disciplines</p> <p>Students were then put into two groups. Using their responses in their application forms, we found the most common concepts used by all students. Using these key phrases, we then invited them to co-construct connections between these phrases and the overarching term ‘ecology’. We also asked them to discuss this in relation to their own subject disciplines.</p> <p>We then shared our discussions as a whole group.</p>	Reinvention Centre
2 28 th Jan	<ul style="list-style-type: none"> To get a sense of the original MM sites by visiting Tocil Field and Heronbank To carry out simple map-related 	<p>**THIS WAS THE SESSION WHEN THE TREE FELL IN TOCIL FIELD**</p> <p>We met in Tocil Field and responded to fallen tree. We gave the students the Mercator maps of the meander and invited them to tour the space, seeing if they can navigate it (even with the tree in amongst the pathway!)</p>	Tocil Field, Heronbank and then Ramphal Building

	<p>meandering using previous MM maps</p> <ul style="list-style-type: none"> • To appreciate the key components that make up a MM • To consider what knowledges and practices they will need to start making their alternative meanders. 	<p>We then set off to Heronbank. We invited them to retrace the remnants of the pathway. We gave them the map and invited them to orientate themselves.</p> <p>We asked them to compare their experiences of Tocil field and Heronbank.</p> <p>We then moved to a classroom space in Ramphal. RK led a workshop that introduced students to:</p> <ul style="list-style-type: none"> • the key components of Meadow Meanders, • a selection of the animal foodstuff jars, • We also discussed the process of making meanders may require us to become ‘reflective practitioners’. Students all received ‘reflective journals’ to start collecting ideas etc. 	
<p>3 4th Feb</p>	<ul style="list-style-type: none"> • To recall the learning from previous work • To understand more about the MM project from BK • To reflect on the ‘components’ and ‘principles’ of MMs 	<p>Students entered the space to see photo images of the meadows. Using their knowledge of the ‘key components’ from last week, students were invited to identify these by labelling the images.</p> <p>We then invited the students to think about how they would describe the project to others. We invited them to think about how they would ‘tweet’ about this project to encourage outsiders to visit the meander.</p> <p>For the second part, Baz joined group. He presented on the background to MM and we held a Q and A. Susan Haedicke joined us.</p> <p>For the final part, we then discussed this central idea:</p> <p style="text-align: center;">‘Ignorance is a factor of understanding and knowledge’</p> <p>How does this connect with their experience of the MM project so far?</p> <p>Baz then discussed the ‘principles’ of MM and the notion of ‘open secret’</p>	<p>Reinvention centre</p>

4 11 th Feb	Same as Week 1	Introduction to Phase 2b members The new group members joined. We repeated similar activities as we did in Week 1.	As above
5 18 th Feb	<ul style="list-style-type: none"> • To introduce new members • To listen to Phase 2a students' initial ideas for MMs. Phase 2b students listen and ask questions. • To learn more about Stan's Café's involvement in the project. 	Phase 2 a and 2b met each other and Stan's Cafe Initial ideas from Phase 2a are shared with all group members. James Yarker from Stan's Café does presentation and we have Q&A	As above
6 25 th Feb	<ul style="list-style-type: none"> • To work in groups to plan and prepare their own MMs 	Planning session in groups Students worked in groups to plan their alternative meanders.	As above
7 4 th March	<ul style="list-style-type: none"> • To work in groups to plan and prepare their own MMs 	Planning session with support from Craig from Stan's Café Student groups worked on their ideas with input from Craig.	As above
8 11 th March	<ul style="list-style-type: none"> • To present their ideas and listen to fellow groups • To draw out interconnections between ideas 	Final group presentations Students presented their emergent ideas and designs for meanders 'alternative' to the ones already successfully established.	As above

4. Symposium Description and Program.

Evolving Eco-creative Pedagogies in Living Laboratories

A symposium exploring cross-curricular sustainability learning through ‘meadow meanders’

How can ‘sustainability’ become the new normal of cross-curricular education in higher education internationally? What kinds of curriculum innovation could ensure that students at key stages in their studies gain access to ‘sustainability’ practices relevant to their specialist subjects?

This symposium aims to address these questions via a current investigation into creative eco-performance experimentation sponsored by Warwick’s Institute of Advanced Teaching and Learning (IATL). It focuses on a participatory performance practice that addresses fundamental questions about how ecological systems on multiple scales can be accessed directly through everyday experience. It draws on recent workshops with school pupils and university students exploring pedagogies for practices that might engage those possibilities. Plus installations for an international conference on theatre and performance research which modelled the creative potential of such pedagogies.

The principal creative source for this IATL project are ‘meadow meanders’, which consist of simple maze-like out-door pathways modelled on major ecological features of Earth. First prototyped in 2011 and subsequently tested in Leeds, Berlin and Warwick, they now combine land art, nature trail, gallery display and immersive performance to produce dynamic and enlivening experience of ecosystem processes. They create environmental puzzles whose playful ‘open-secret’ solutions can involve a very diverse range of individuals and groups across generations and continents in exploring the ecologies of interacting climates, landscapes, species and more. Hence they could present measures for evaluating the ecological potential of innovative sustainability curricula across a wide reach of disciplines.

The symposium will provide delegates with the opportunity to collaboratively explore the work of this IATL project through practice, theory and ‘hands-on’ speculation. It might even constitute a minimalist training into making ‘alternative’ meadow meanders.

Research Team: Co-investigators Prof Baz Kershaw (Performance/Theatre Studies) and Dr Rachel King (Centre for Education); P/G Research Assistants Emily Temple (Centre for Education) and Hanzhi Ruan (Centre for Cultural Policy).

Meander Feedback

I think it’s a seminal project! ... I think the whole world should do a meander
EVERY DAY! Alan Rivett, Director, Warwick Arts Centre (9.16.14)

Programme – Wednesday 17th June 2015

PLEASE NOTE: We will begin in the **IATL foyer** (Senate House, Grid: D5, Building 57). As shown below, following our visit to the Meadow site, we will go to the **The Reinvention Centre** (Westwood campus, Grid: G2, Building: 73). Please see map for directions.

Free, Booking required, Lunch provided

10-10.30 Registration and refreshments in IATL foyer

10.30-10.40 Guided walk over to the new Meadow Meander site

10.40-10.50: Professor Baz Kershaw and Emily Temple introduce the Meadow Meander

10.50-11.20: Meandering in the Meadow

11.20-11.35: Guided walk to the Reinvention Centre

11.35-11.55: *Meandering affects to present*
Professor Baz Kershaw

12-12.30: *Eco-pedagogy and the 'living laboratory'*
Dr Ria Dunkley (University of Cardiff)

12.30-1.30: Creative Practice B: *Nurturing interdisciplinary student collaboration*
Dr Rachel King, Hanzhi Ruan and IATL students

1.30-2.30: Lunch in the Jam Grove

2.30-3.30 Creative Practice B: *Developing enticing eco-pedagogies for local schools*
Rachel King, Emily Temple and Baz Kershaw

3.30-4.30: Closing panel and whole group discussion:
Dr Ria Dunkley, Dr Susan Haedicke (University of Warwick),
Prof Baz Kershaw and Dr Emma Meehan (Coventry University)

4.30-5: Wine reception

5. IDL Grassy Meander: Guidelines for Student Minders and Support Team.

A Grassy Meander: Of All The Creatures Across The Globe

University of Warwick, 9th-24th July 2015

[How to know and run an environmental meander](#)

This is to explain in more detail how the final making and running of the meander will be organised in terms of your various duties/tasks and how its maintenance will be managed.

Meander processes

There are two main ways in which visitors can use the meander: as a Do-it-Yourself activity by following guidelines and other information on notices, or by being introduced to the meander by one or more of the four minders (or reserve minders), plus using the DiY notices if they need/wish to. When they exit the meander they then have two options for giving feedback on their experience (which they can ignore if they wish); a FAST TRACK and a SLOW TRACK one. The FAST TRACK involves writing/drawing a response on a small postit sheet and 'posting' it into a bird nesting-box; the SLOW TRACK gives them more feedback option methods. There is also a quiz relating to the animal boxes, and finally a chance to learn about the meander's 'mysteries' through finding out about its 'open secrets'. Of course there's more to it than that, which you might learn on the opening day, but will definitely be told about during the introductory workshop on the following day, 11th July.

Meander people

As you know, there are nine of you on the meander team as well as a host of backup supporters working in different parts of the University:

Four meander minders: Hu, Maria, Bushra and Grace – working directly with visitors in late-afternoons and maintaining meander systems.

Two reserve minders: Emily and Kitt – doing the above and possibly other jobs in case the minders can't, for whatever reasons.

Two promoters/website/etc.: Ella and Jamie – creating meanderers galore, keeping me sane, etc.

One technical/maintenance organiser: Chase – part making/minding feedback areas and managing running of meander July 14th-24th.

Friday afternoon's opening is an informal opportunity to get to know how meanders work as Baz - with your support if you can be there - works as a full-time grassy meadow minder to run the meander for invited visitors. This should be a relaxed and enjoyable amble as the meander is designed to run itself, so just groups who are deliberately gathered together get the full-scale introduction and exit follow-up spiel.

Meander program 9th-24th July

Date	Action	Team members
Thursday 9th July AM:	Baz arrives on campus	
10.00-12.30	Walking meander & install animal boxes	Baz/Chase
1.30-6.30	Installing signage and feedback set-up (may continue till later if not mostly finished)	Baz/Chase
Friday 10th July AM:		Baz meandering all day anyone available
9.30-12.30:	finish installation inc. feedback docs./set-up	
1.30:	Prompt: Baz introduces minders to meander	minders (and reserves?)
2.15:	Short break.	
3.00-5.00:	'Official' opening for invited colleagues Baz becomes meadow minder welcoming/ inducting visitors to meander ... minders (if present) practice this process with him, etc.	all team? (but not all time)
5.00-6.00:	Putting the meander to bed.	Baz + others?
Saturday 11th July		
10.00am-7.00pm:	Meander mostly runs itself.	
11.00am-12.30pm:	Rachel and Emily run 1.5 hour meander workshop for minders (and Reserves) plus any others who want to be there.	
5.00-6.30:	First Meander session - Hu & Maria (1 hour each inc. ½ hour overlap)	
7.00pm:	Meander Day Closes (no access to Meader)	

The rest of the sessions are managed in four-day slots by individual and pairs of minders, following the same schedule as Saturday in 'overlap' days, as follows:

Sunday 12th-Tuesday 14th July: Hu (5.00-6.00)
Wednesday 15th July: Hu & Maria (5.00-6.30: 1 hour each inc. ½ hour overlap)
Thursday 16th-Friday 17th July: Maria (5.00-6.00)
Saturday 18th July: Maria & Bushra (5.00-6.30: 1 hour each inc. ½ hour overlap)
Sunday 19th-Monday 20th July: Bushra (5.00-6.00)
Tuesday 21th July: Grace & reserve TBD (5.00-6.30: 1 hour each inc. ½ hour overlap)
Wednesday 22nd-Thursday 23rd July: Grace (5.00-6.00)
Friday 24th July: Grace (5.00-6.00 and party/de-rig)

Meander maintenance processes

As the meander will be mostly ‘unmanned’ during each day we have to have a reliable system for keeping its production quality up to scratch on a day-to-day basis, through regular and quite rigorous maintenance systems. Everyone on the team is partly responsible for that, but especially the minders who, through having interesting fun with the visitors are onsite every day and so are best placed to help maintain the meander’s basic systems. So next is how that will work, with Chase being responsible for the overall running and organisation of looking after how the meander is doing between 14th-24th July.

Various consumable materials – from guide sheets to crayons – are needed for the meander to run successfully, mostly in the feedback areas but also elsewhere, and as they’re used up they need to be replaced. Obviously it will be very hard to predict how often the materials will have to be restocked, so that restocking has to be assumed as an every-day possibility and monitoring and renewing stock levels is an essential and important daily task. Here’s how we aim to make it an accessible and automatic top priority.

On the day of the opening (July 10th) by 2.45pm the meander system needs (if possible!) to be well stocked with materials needed. As part of their training with Rachel and Emily on July 11th the meander minders (and any others of you who are attending) will be made familiar with the materials system and how it will work. The maintenance routine will be done every day by the duty minder, as follows.

- (1) Before or after attending to visitors (as appropriate) all the stock will be checked by the minder against a list of materials.
- (2) If any stock is running moderately low (e.g. by 25-30%) the minder renews it from a small box of materials in the feedback area.
- (3) If it is running lower than that the minder calls Chase, who the following morning (as appropriate) replaces stock by drawing on a bigger store in WMG.
- (4) If the meander is busy and stock getting used up quickly the duty minder tops it up at the start of the late-afternoon session from the WMG store, then calls Chase if the stock in that store needs replacing.

(5) Chase replaces the WMG stock as soon as possible and the cycle of report and replacement continues throughout the two weeks. Chase has the job of monitoring and replacing the flow of stock overall, so it is important that reports to him are detailed enough so he can decide to proactively replace stock if that is needed at any time. Note that there might be adjustments made to this system for the weekend of 18/19th when WMG may be shut, but Chase will keep an eye on this to make sure there will be enough stock always available on-site. Meanwhile your colleagues working on promotions will be working to do exactly the same with people.

Obviously there will be other less frequent (but better known and more predictable) maintenance tasks that might/will need to be done and Chase will be responsible for those. But minders will also need to check the meander and DiY notice boards daily in case there are problems and report them to him. This is particularly the case for the animal display. But that and less important stuff will be explained at the workshop with Rachel and Emily on 11th July.

Meanders what else?

Meanders are a serious creative business but they are also designed to produce playfulness, pleasure and fun. So you should also be on the lookout for the oddities and absurdities and sometime sheer weirdness of the effects and affects they seem routinely to produce for people including, I hope, your good selves. They can be miserable when it rains, of course, but also maybe a joy to wallow in on the self-same day. Yet also, because they are serious, you should all benefit from tuning in to the sensitivities, attitudes, behaviours and assumptions that meanders can bring out in an apparently vast variety of ways. Even though these paths are usually closed systems, they can be as open as the sky on a dry and sunny day. So I hope you enjoy your time of meanderings for the differences it can make to a future that is, after all, always ahead of its time.

Have a great meandering time and lots of luck for the coming week.

Baz.

Devised/presented by Stan's Cafe & EARTHRISE REPAIR SHOP
<https://agrassymeander.wordpress.com>

7. Acknowledgements list for IDL Meander & other key aspects of the project.

A Grassy Meander Of All The Creatures Across The Globe

Role Call

Warwick Meander Minders/Makers

Kherallah Bushra
Emily Dunford
Hu Haomiao
Anna Hawkins
Chase Heltzel
Grace Evangeline Holme
Maria-Chistina Stavridou
Kitt Wong
Jamie Wright

Meander Co-Researchers

Ruan Hanzhi
Rachel King
Emily Temple

Stan's Cafe

Roisin Kaffrey
Craig Stephens
Rowena Wilding
James Yarker

Warwick Estates

Roger Boxall
Wayne Bailey
Dean Jackson

Warwick Colleagues

Kate Brennan
Jim Davis
Susan Haedicke
Tracy Cattell
Ian O'Donoghue
Sarah Shute

Warwick Colleagues

Susan Brock
Jane Coleman & Colleagues
Christine Fearn & Colleagues
Caroline Gibson & Colleagues
Jonathan Heron
Nicholas Monk
Will Thomas

Honorary Meander Minders

Professor Lord Kumar Bhattacharya
Professor Sir Nigel Thrift
Mr Alan Rivett

Special Mention

Stephen Bottoms
Tony Jackson
Emma Meehan

Special Mention

Paul Taylor
Sandra Reeve
White Trilby Woman

Students of IATL Meadow Meander Project, 2015

The first 1000+ Meander Wanderers

Special Thanks

Gillian Hadley
Eleanor Hadley Kershaw

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Griffins Yard, South Molton
Watsons, South Molton

And to the many unnamed ones

Thank you ... and may your meandering be forever fruitful

With many thanks in this University of Warwick 50th Anniversary year from

EARTHRISE REPAIR SHOP and **Stan's Cafe**
<https://agrassymeander.wordpress.com> & www.stanscafe.co.uk