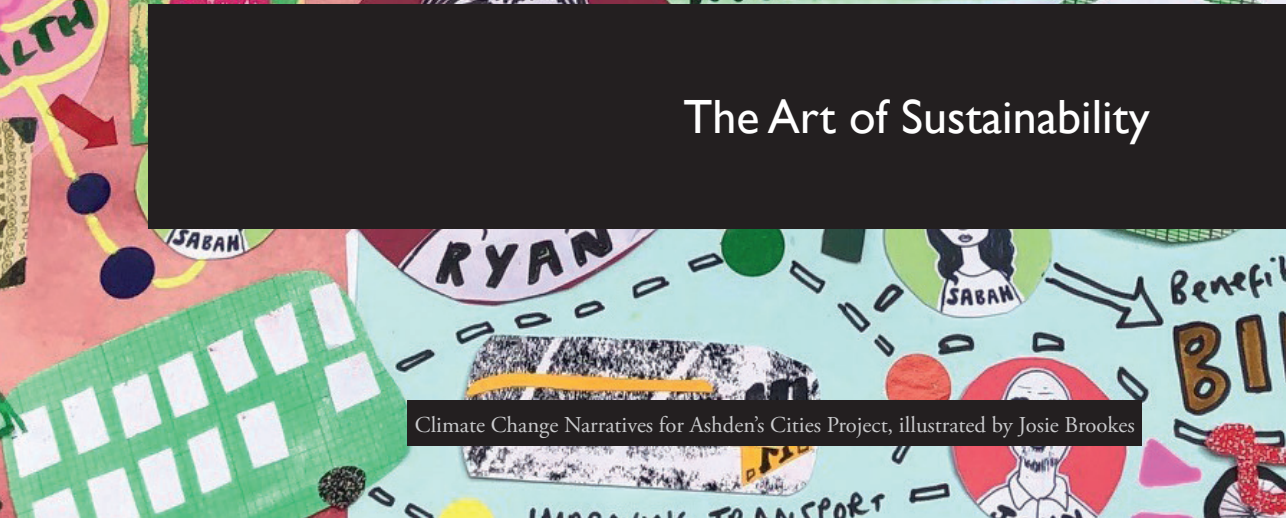


Article



The Art of Sustainability

Climate Change Narratives for Ashden's Cities Project, illustrated by Josie Brookes

The Art of Sustainability

By Sarah Woods

Introduction

This article explores how systems thinking can be useful in the fields of the arts, arts education and activism as a way of thinking, creating, communicating and catalysing change. Twenty years ago, I was asked to take over and redesign the Mphil(b) in Playwrighting at Birmingham University, which had been started by the playwright David Edgar. Looking at the writers who had taught the course before, including David and Stephen Jeffreys, they had methodologies and theories – which I did not. I thought I'd better have one and started by looking at patterns, specifically patterns in nature. What follows is an exploration of elements of the methodology I've developed in the intervening years.

This issue of *Peripeti* called for papers on Sustainable Theatre and Performance Practice. Something that is sustainable is “able to continue over a period of time”¹. In 1972, the seminal Limits to Growth report, which I recently dramatized for BBC Radio 4, was published. The report is the findings of research carried out by a team led by Dennis L Meadows and commissioned by the Club of Rome. Using computer modelling and systems thinking, it clearly reveals that the issue uniting the world's ‘sixty six critical problems’, or ‘the world problematique’ as the Club of Rome² identified it, is growth. Fifty years later, their argument is as important and compelling as ever. The authors note that:

Population cannot grow without food, food production is increased by growth of capital, more capital requires more resources, discarded resources become pollution, pollution interferes with the growth of both population and food (Meadows, Meadows, Randers and Behrens 1972, p. 89).

Just like the coronavirus pandemic, their research shows that everything is connected and everything affects everything else. On our planet, these five basic quantities of population, capital, food, nonrenewable resources, and pollution “are joined by still other interrelationships and feedback loops” to create “such a complicated structure that one cannot intuitively understand how it will behave in the future, or how a change in one variable might ultimately affect each of the others”. To achieve this understanding of complexity, to “follow the complex, interrelated behavior of many variables simultaneously” and understand how we might reach a sustainable equilibrium, they use systems thinking. I will do the same.

First I will delineate my key lines of thinking, situating the work in the field of relational art. Next, I'll define what is meant by a system, drawing principally on the work of systems thinkers Donella Meadows and Fritjof Capra. Finally, I'll explore the application of the methodology in three different situations, utilising and focussing on three basic patterns of systems thinking: the

1) Cambridge Dictionary online (2022). Available at: <https://dictionary.cambridge.org/> (accessed 7th August 2022).

2) The Club of Rome is a platform of diverse thought leaders who identify holistic solutions to complex global issues and promote policy initiatives and action to enable humanity to emerge from multiple planetary emergencies. <https://www.clubofrome.org/>

semi-permeable membrane, leverage points and side effects. All of the examples used were facilitated by me and explore the methodology as: a relational way of working for the arts, in the participatory theatre show *The Roadless Trip*; a creative educational methodology for playwrights, called *The Play as System*; and as a campaigning tool to facilitate processes of change, in workshops for Ashden's *Cities* project.

Relational Art

In 1991, Suzi Gablik published *The Re-enchantment of Art*, an attempt to redefine art and culture along relational lines. We can see this as the fulcrum from which the field of what Gablik calls 'relational art' was leveraged, art that is in relationship with rather than free from community and society.

Relational art was founded in the visual arts. Taking the baton in 1998, Nicolas Bourriaud states that:

The possibility of a relational art (an art taking as its theoretical horizon the realm of human interaction and its social context, rather than the assertion of an independent and private symbolic space), points to a radical upheaval of the aesthetic, cultural and political goals introduced by modern art. (Bourriaud 1998, p. 14)

This upheaval has since moved into the performance arts and it is this field that my research and methodology is situated in. While the interest in the relationship between art and society goes back much further than this, this iteration is particular and in line with Gablik's prediction:

I believe that what we will see in the next few years is a new paradigm based on the notion of participation, in which art will begin to redefine itself in terms of social relatedness and ecological healing, so that artists will gravitate toward different activities, attitudes and roles than those that operated under the aesthetics of modernism. (Gablik 1991, p. 27)

Themes of participation, social relatedness and ecological healing run through all the work in this emerging "wide and rangy field of social art practice", as Shannon Jackson calls it (2015, p. 105). Returning to the genealogy of the field, Jackson reminds us of Marx' thoughts of relationality, the "reciprocal and all-sided dependence of individuals who are individuals who are indifferent to one another forms their social connection"³, through Gramsci to Raymond Williams' discourse about the problems of the medium or the form as being "directly linked with a sense of crisis in the relationship of art to society"⁴.

Claire Bishop also maps this expanded field back to the 1990s, and while the artists she focusses on in her book *Artificial Hells* are "less interested in a relational aesthetic than in the creative rewards of participation as a politicised working process"⁵, she is also clear that the shift towards a social context has been huge:

3) Marx, Karl, 1993. *Grundrisse*. Nicolaus, Martin (Tr). London: Penguin Books. P87.

4) Williams, Raymond, 1977. *Marxism and Literature*. Oxford: Oxford University Press. P163.

5) Bishop, Claire, 2012. *Artificial Hells*. Londond, New York: Verso. P9.

Up until the early 1990s, community-based art was confined to the periphery of the art world; today it has become a genre in its own right, with MFA courses on social practice and two dedicated prizes.⁶

She shares the view that “the hallmark of an artistic orientation towards the social in the 1990s has been a shared set of desires to overturn the traditional relationship between the art object, the artist and the audience”.⁷

This overturning of the traditional relationship between art object, artist and audience inevitably creates new ones. *Encounters Arts* was set up in 2003 with the opening of a disused shop in Sheffield, where “nothing was for sale but lots was on offer”⁸. They continued until 2020, working on over 80 projects with thousands of participants, including community visioning events, citizen anthropology and community growing projects. As founder Ruth Ben-Tovim says:

The gold at the heart of Encounters’ intimate, invitational practice evolved by so many practitioners, is simple but often very profound moments of inter-connection between people, between the places they live and the wider web of life that we are all part of (...) Creating the conditions for these moments to arise, in which people experience their own agency, value theirs and others’ voices in new ways and even hear an unexpected call to act and stand up for that interconnection, is what really matters to me.⁹

That idea of ‘creating the conditions for’ is central to the field in which this research is situated. It’s about democratizing the means of production and enabling participation and co-creation. These patterns are now evident in many campaigns too, from XR¹⁰ to This is Rubbish¹¹ and many that I have worked on.

Formed of a collective of artists exploring the role of creative intervention in social change, Liberate Tate is a good example of this relational mix of art and campaigning. The organization was founded at an art and activism workshop held at The Tate in January 2010, when Tate curators tried to censor the workshop from making interventions against Tate sponsors, even though none had been planned. Since then, in response to an open call, artists and members of the public have gathered to make creative acts of protest in order to free art from oil. The combination of art, mischief and direct action that the group employs exemplifies the ways in which the relational arts field reaches into protest.

What all of this work has in common is a feeling that there are gaps in society that art can usefully fill, often working in ways and with skills that are not part of our traditional, singular roles as writers or directors or performers. This growing sensibility is something I explored as part of the *Culture Shift* report, commissioned by Arts Council Wales, in which we identified a response by

6) Ibid. P9.

7) Ibid. P10.

8) Encounter-Arts Legacy Website: <https://encountersarts.wixsite.com/legacy>

9) Encounters-Arts Legacy Website documents: https://drive.google.com/drive/folders/1FXZ8_p3KZdLoqZlIxFA1lS15jmcXbUny

10) <https://extinctionrebellion.uk/>

11) <https://www.thisisrubbish.org.uk/>

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artists to a perceived need, to a sense that circumstance has created an ‘art shaped space’¹² around some of the biggest challenges we currently face – and that it is our responsibility to inhabit that space in ways that are useful, to encourage agency and enable cultural shift and change.

As one of the core contributors to Lucy Neal’s *Playing for Time: Making art as if the world mattered*, I had the opportunity to facilitate, explore and research with a large number of the 64 “artists, creators and agents of change”¹³ who co-authored it. Through this project, we uncovered the patterns of what I call relational art and what Neal calls “transitional arts practice”.¹⁴ I have continued this observation since and, as the field becomes more familiar, its spread becomes easier to spot. There are a series of things that work of this kind has in common. All of it doesn’t feature all of them, but most of it features most of them:

- Relating to the world through research and interviews
- Seeking to create change or the conditions for change
- Holding a safe space in which things can happen
- Enabling dialogue, often about difficult and complex subjects
- Creating connections between people, groups of people, people and issues, people and their communities and societies
- Distilling complex ideas and information
- Creating empathy
- Working with values
- Working through diversity and plurality

Systems

The Austrian biologist Ludwig von Bertalanfy is often credited as being the father of systems thinking and general systems theory, followed by prominent thinkers like the German sociologist Niklas Luhmann and diversifying into cybernetics, chaos theory and complexity theory, among other disciplines. My work follows the lead of Donella Meadows and Fritjof Capra. Donella Meadows, systems thinker and lead author of the *Limits to Growth* report, says:

12) Allen, Paul; Hinshelwood, Emily; Smith, Fern; Thomas, Rhodri; Woods, Sarah, 2014. *Culture Shift: How Artists are responding to Sustainability in Wales*. Wales: Arts Council Wales. P8.

13) Neal, Lucy, 2015. *Playing for Time, making art as if the world mattered*. London: Oberon Books. P10.

14) Ibid. P10.

A system is an interconnecting set of elements that is coherently organised in a way that achieves something (...) a system must consist of three kinds of things: elements, interconnections and a function or purpose. (Meadows 2009, p. 11)

She goes on to identify a range of different things as systems, from our digestive systems to a football team, a city, a school or a tree. As she says, each of them have elements, interconnections and a function or purpose. Given that so much of ourselves and the world around us is made up of naturally designed or human-designed systems, it's surprising that its basic elements and patterns are not more overtly familiar to us.

Systems thinker Fritjof Capra points out that:

As the twenty-first century unfolds, it's becoming more and more evident that the major problems of our time – energy, the environment, climate change, food security, financial security – cannot be understood in isolation. They are systemic problems, which means that they are all interconnected and interdependent. (Capra and Luigi Luisi 2014, p. xi)

Capra continues that throughout history western societies have given more attention to elements than to interconnections, tending to think more mechanistically than holistically, asking “What is it made of?” rather than “What is the pattern?” (Capra and Luigi Luisi 2014, p. 6). Sometimes however, as he identifies, the study of patterns and relationships comes to the fore. Now, in our networked, digital world, as we wrestle with systemic problems like climate change, global inequality and migration, is one of those times.

It is this shift, from elements to connections, from things to relationships, that for me resonates so usefully and clearly between systems thinking and relational arts practice. Shannon Jackson speaks of it as she digs into what sorts of work are being made in what she calls the cross-disciplinary, socially-engaged art field. In doing so, Jackson refers back to Notebook 1 (October 1857) of Marx' Grundrisse¹⁵, noting “what he called the ‘relationality’ of persons, worlds and things that appear as given and discrete”¹⁶. Here Marx reveals how, even in an individualized, capitalist society, we are relationally dependent. This relationality, however, “can be achieved only within the conditions laid down by” the dominant economic system of our time, in capitalism's ceaseless exchange of products and activities. Which is harder to see clearly when you are in it. As Jackson points out: “The trick of capitalism and of other restraining forces was that they prompted us to repress that relationality, repress the social practice that is a person, to sublimate the social practice that is a thing”¹⁷.

It is the release of this relational repression that we are seeing in so many areas of life and which systems thinking enables us to identify and work with so readily. As Capra argues, solving the problems of our time demands a radical shift in our perceptions, our thinking and our values. A change as big as the Copernican revolution. Getting into the habit of thinking more systemically can help.

15) Marx, Karl, 1993. *Grundrisse*. Nicolaus, Martin (Tr). London: Penguin Books. P87.

16) Jackson, Shannon, 2015. Social Turns. In: Martin, Randy (ed), *The Routledge Companion to Art & Politics*. London: Routledge. P108.

17) Ibid. P108.

My methodology explores and deepens the connections between relational art and systems thinking, to create a robust set of tools that can be applied to a wide variety of situations that are either creative in and of themselves or benefit from creative methodologies, and which many participants, commissioners and collaborators have identified as an original and useful contribution to the field.

I'll now explore the application of the methodology in three different settings: education, the arts, and campaigning. In each case study, I'll focus on one particular aspect of systems thinking: the semi-permeable membrane, leverage points, and side effects.

Three applications

The semi-permeable membrane

Donna Haraway, in her *Cyborg Manifesto*, identifies “three crucial boundary breakdowns”¹⁸ between humans and machines, humans and animals, and between the physical and the non-physical. Those leaky distinctions, I'd argue, are at every border because borders are not the neat places we often think they are, they're messy and blurred:

There is no clearly determinable boundary between the sea and the land, between sociology and anthropology, between an automobile's exhaust and your nose. There are only boundaries of word, thought, perception, and social agreement—artificial, mental-model boundaries. (Meadows 2009, p. 95)

While the current attacks in Ukraine are being waged by Russia, there are Russians living in Ukraine and Ukrainians living in Russia. Disorderly and mixed-up borders, as Donella Meadows points out, are “sources of diversity and creativity”¹⁹.

The cell, the smallest system of life, found in all living things, has a semi-permeable cell membrane that is always active, always participating in the activity of the cell. Without that flow, it ceases to exist. As Capra says: “Boundaries in the realm of the living are not boundaries of separation but of identity... there's constant interaction with the environment” (Capra 2004).

This pattern is at the heart of our cellular lives, it was at the heart of the coronavirus pandemic, and it is at the heart of how we connect with ideas, people and events. It's also a very useful pattern to hold in mind as we start to think in systems.

In 2015 my then teenage daughter, Lil Woods, and I made and toured a show called *The Roadless Trip*. It was mix of game show, stand-up and analysis that laid bare the major systems we live with: politics, economics, food and energy. The show asked: What do we want to take with us into the future?

Over five months we visited twenty two community groups across the UK, focussing on audiences that UK arts funders call ‘hard to reach’, including a Sikh women's knitting group, an HIV positive support group and a refugee centre.

The Sikh women's knitting group didn't communicate by ‘phone or email, so we had to post them letters. The show needed to work in a diversity of venues, so we had to be proactive in managing change and difficulty when we arrived to get in. While we were professional and put

18) Haraway, Donna, 2016. *The Cyborg Manifesto*. Minnesota: The University of Minnesota Press. P10.

19) Meadows, Donella, 2009. *Thinking in Systems: A Primer*. Wright, Diana (ed). London: Earthscan. P95.

on a show that exceeded people's expectations, it was also important that we were deliberately rough round the edges, or semi-permeable and in, as Capra says, constant interaction with the environment, in order to foster the feeling that anyone could join in.

As we learnt by doing, we realised that to co-create something relational, that depth of connection, that semi-permeable quality had to be present in every aspect. Our team became a semi-permeable membrane and the project would not have worked otherwise.

The ideas the show covered were complex: how our economic system works, why food banks may not be the answer, the origins of the universe and our place in it. Communicating these to a huge range of people turned out to be the simplest part of our job. People were engaged, activated and often excited by the level of thinking and debate.

In Lancaster, we performed at a drop-in centre for people experiencing homelessness, as they came in for breakfast. The audience arrived directly off the street, some with recent cuts and bruises, and watched the performance with bowls of breakfast cereal. One scene, VEG-O-NOMICS, explored the economic system, from the days of exchange and barter to now.

As we performed, a man in the audience started to heckle. First, as I remember, with questions: "So you mean..." and "Are you saying...". Remaining permeable to this input, responding to him and looping that response back into the show was challenging, but not impossible. The scene became a dialogue. At the end, I remember, he stood up and announced to the room "Now I know why everything in my life has happened to me". It was as deep a moment of communication as any I've ever had.

There were lots of moments like that. Through journeying to them, rather than expecting them to journey to us, we learnt a lot from audiences who weren't constrained by classic theatrical rules of engagement.

After the show we asked our audiences about our collective future in over 100 filmed interviews that formed the basis of a new version of the show: *The Roadless Trip 2*, which we toured to our partner venues, with our original community groups invited to attend.

We had no problem with volunteers for the filmed interviews, people wanted to talk in depth and personally. Due to the deeply human nature of the performance, focussed on a mother-daughter relationship and helped by the fact that audiences were on their home territory, people felt that they were 'in relationship' with us by the end of it. The interviews were framed in the same way as the performance, asking 'What do we need to take with us into the future?'. Diverse interviewees gave the same answers, which were largely values based, around love, hope, freedom and equality. People were treated as equals and experts, and they talked through the lens of their own lived experience, applying what they knew to the systems we had explored in the piece. The interviews were hugely moving, the interviewees very trusting.²⁰

The material always belonged to the people and their communities. We transcribed each interview and sent the sections we wanted to use back to the relevant interviewee, to ask for their input and permission. This is an important part of the pattern of the work: changing the output to fit the input. Much of the time in the arts, we are trying to change the input to fit the output.

We were, from the outset, looking for collaborators rather than bums on seats. The effect this had was that, rather than creating audiences, we were unwittingly creating fellow artists. I had a number of conversations with groups at the end of the project about the shows they want to make with us next, focussing on important issues they want to communicate.

20) *The Roadless Trip*, interview archive.

Of our audience, 77% said they had never been to anything like *The Roadless Trip* before in their lives, but would again. Whether it takes place in community spaces or theatres or both, this sort of artistic process – offering its audience the means of production – isn't just about experiencing art, it's about a way of connecting, building dialogue, creating a space where conversations about difficult things can happen safely, towards a renewed sense of what might be possible in the world.

Leverage points

The aspect of complex systems that is useful to us in this next example is that of the leverage point. Leverage points are places to intervene in a system. As Donella Meadows says, they're: "places within a complex system (a corporation, an economy, a living body, a city, an ecosystem) where a small shift in one thing can produce big changes in everything"²¹.

A good example of a leverage point is in the story of Hansel and Gretel, where the witch has locked Hansel in a cage and is going to eat him. She asks Gretel to lean into the oven to see if it's hot enough, with the idea of pushing her in and eating her too, but Gretel asks the witch to show her what she wants her to do – and Gretel pushes the witch into the hot oven and bolts the door shut. This moment, this leverage point, changes everything: the brother and sister escape, they find some treasure, a swan gives them a ride across a lake and – when they get home – the wicked stepmother is dead and their father is delighted to see them.

While it's clear when we look at a story like Hansel and Gretel that everything happens at once, interconnected and relational, when we learn and teach how to write a play, we usually focus on the basic elements. For me, these elements are: story, plot, structure, character, dialogue and theme. Where working with the Play as System methodology departs from more traditional methods, is in remembering that the interconnections and relationships between these elements are as important as the elements themselves.

The Play as System methodology explores how each element is linked to the others. In a strong play, all the elements are connected in multiple ways, to create a whole system. As Donella Meadows points out: Words and sentences must, by necessity, come only one at a time in linear, logical order. Systems happen all at once. They are connected not just in one direction, but in many directions simultaneously. To discuss them properly, it is necessary somehow to use a language that shares some of the same properties as the phenomena under discussion. (Meadows 2009, p. 5)

As writers, our inspiration often starts with one element or another. This singular journey into the world of our play can become habitual. It might focus on what motivates us in what we say and do. It might start with ideas, issues and themes, or it might begin with a story, plot or 'big idea'.

If we start with character, we find ourselves writing about people or writing pages of dialogue. If we start with plot, structure or story it will be events, causation and consequence. If we start with the theme or 'big idea' it will be an interconnected set of things that carry meaning for us and that we want to communicate.

So while we can use the Play as System method to start to identify what makes a play tick, and how the different elements interact, we can also use it to better understand ourselves as writers and directors, by identifying what gives us that energy, that moment of creative excitement.

We can then use it to trouble-shoot: What does our current method mean we might be focussing on less? What might get left behind? Mapping the connections between these elements

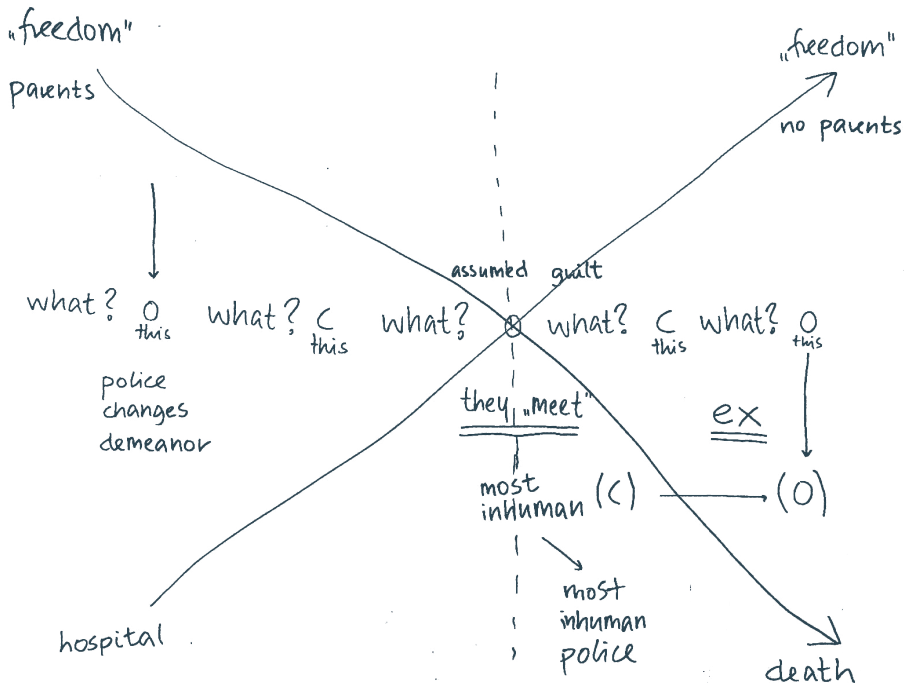
21) Meadows, Donella, 1999. *Leverage Points: Places to Intervene in a System*. The Donella Meadows Project: <https://donellameadows.org/archives/leverage-points-places-to-intervene-in-a-system/>

will help us balance our craft. A good way of testing out a character or a scene or event in a play is to look at what else it's connected to and to ask: How does it relate to the theme, to the characters, to the structure?

Once we've worked with the basic elements of a play and explored the connections and relationships between those elements, it can be useful to identify the leverage points, or lack of them, in the play. I explored this as an exercise with BA Playwrights at Den Danske Scenekunstscole in 2019. First I asked the six students to discuss, in pairs, where they thought the leverage points in their play were, to ask: Are they doing enough for you? Are you getting the most out of them?

We discussed Augusto Boal's description of the Chinese Crisis in a forum play as being a place of both danger and opportunity and how leverage points are the same. I then asked each of the students to map their play as a system, taking a whiteboard each. The object of the exercise was not to create a beautiful model, but to explore the system of their plays. They were to keep in mind the inputs, the relationship between the elements, the outputs and the leverage points.

It soon became clear from the images when a student had found a leverage point. It was the obvious place in their drawing where something or things turned to their opposite. Identifying these moments enabled students to explore the deeper patterns of their work, to notice the relationships between the elements and to better set up and realise their dramaturgy. In strengthening a leverage point, a student could explore how one that focussed on a character – perhaps someone who is in a position of power becoming vulnerable – could extend across story, structure, plot, theme and dialogue. This often had other knock-on effects as scenes, revelations, conversations needed to be moved or refocussed to better enable the leverage point to take full effect in the architecture of the drama.



Identifying Leverage Points in a Play, diagram made as part of class teaching by Mathias Baby Ravn

Students found the ability to track the energy of their plays, which we might identify as dramatic tension and dramatic action, which in this methodology I call potential energy and kinetic energy, through set-ups, revelations and leverage points, hugely valuable. Gaps, disconnects and repetitions become clear when the text is turned into a model in this way. We also realised how, as dramaturgical tool, this method enables others to see the play with the writer and to take a journey with them.

Side Effects

As the ecologist Garrett Hardin notes, systems thinking teaches us that there are no such things as side effects:

When we think in terms of systems, we see that a fundamental misconception is embedded in the popular term “side-effects” (...) This phrase means roughly “effects which I hadn’t foreseen or don’t want to think about” (...) Side-effects no more deserve the adjective “side” than does the “principal” effect. It is hard to think in terms of systems, and we eagerly warp our language to protect ourselves from the necessity of doing so. (Hardin 1963, p. 8)

Ashden is a London-based charity whose mission is to accelerate transformative climate solutions and build a more just world. I joined them to explore how storytelling and creative campaigning can support their co-benefits work with local authorities. In this article I’ll focus particularly on the work I developed and delivered as part of their partnership with the North of Tyne Combined Authority²², bringing together council officers, elected officials and a broad range of local stakeholders. As Ashden say on their website, we set out to use:

Creative tools to unlock a new policy development methodology – one that helps decision makers take a holistic and systems-based co-benefits approach. Crucially, we’re supporting staff from different parts of the three authorities to connect climate change action with broader community benefits²³.

Co-benefits is another way of expressing the idea of side-effects, those effects we haven’t anticipated or don’t want. In this project, we looked at how a systems view can enable us to work positively with them. My role was to design events that would enable the wide range of attendees to explore a multi-solving or co-benefits approach to some of their problems, specifically around the three areas of active and sustainable travel; fuel poverty and decarbonisation; and green infrastructure, including nature based solutions and local food supply chains.

While many projects and policies ignore the negative ‘side effects’ of their implementation, where climate action is concerned, we often ignore the positive ‘side effects’ or benefits of transitioning to a more sustainable way of living. Drawing on extensive reading and interviews, I created four local characters who between them encapsulate a holistic range of issues currently faced by people in the region. From pollution to homelessness to mental health issues, the characters have lives heavily affected by local authority decisions and to which a multi-solving or co-benefits approach could usefully be applied.

22) <https://www.northoftyne-ca.gov.uk/>

23) Ashden. <https://ashden.org/north-of-tyne/>

When we talk about co-benefits we're talking about how one thing that we're trying to solve is connected to another that is perhaps someone else's specialism or in someone else's budget area.

Our first event focussed on active and sustainable travel and when asked in a pre-event survey about the challenges or barriers to policy or project development in this area, the issues participants identified were largely disconnects. In transport, this is clearly seen as people move across geographical funding boundaries and find that their journey is affected physically, practically or financially. One participant picked up on the "Lack of coordination between providers (so integrated ticketing for the region can happen)"²⁴, while another pointed out the contradiction between the journeys made and the policies and management of them, "Confusing geographies of responsibilities and funding where the content of policy (i.e. transport) is about moving across boundaries"²⁵.

Transport, because of its physical nature, clearly reveals the effects of these disconnects and enables us to see that any solutions implemented need to be about creating connections between things, rather than the creation of more stand-alone projects, which is what people thought would help.

The second pattern, which really falls out of the previous one, was about the relationship between causation, or inputs, and consequences, or outputs. So rather than reacting to 'things' or 'elements' as they emerge, to ask more questions such as: "What led to this?" and "What are the inputs to this situation?", or "What are the outputs?" and "What will this produce?"

The basic thinking shift from things or elements to connections and relationships sounds almost too simple to be worthwhile, but it really is at the heart of so much that is hindering us from dealing with the complex problems that face us.

The events sought to create a shared understanding of complexity and interdependence. This required us to embrace diverse perspectives, listen deeply, and build consensus towards a shared understanding of the problem that worked from whichever part of the system you were viewing it from, whatever your specialism.

In this application, the methodology enables us to re-imagine and begin to make systemic decisions, co-ordinated strategies that go beyond treating single issues in isolation and to include key causal relationships, leverage points, and foresight across the whole system. Participants found the ability to engage in collective reflection towards systemic solutions an energising and inspiring experience.

Conclusions

In *Playing for Time*, writer and theatre-maker Lucy Neal states that: "Transitional arts practitioners are natural systems thinkers. In many ways, all artists are, especially those working with many participants to create new models of the world collectively and across disciplines" (Neal 2015, p. 92).

When I look at the development of the relational arts field over the last thirty years, like Neal I feel that its relationship to systems thinking is clear. Developing a methodology that enables people working creatively across the arts, education and campaigning to engage deeply and creatively with systems thinking feels useful and timely.

24) Ashden, Sustainable Towns and Cities: North of Tyne. Active Travel Event Participant Survey Results, September 2020.

25) Ibid.

One of the things I have noticed, in developing and sharing this methodology, is that it enables a complexity of mind to be held both by individuals and by groups of people gathered around difficulty and difference, which in the Nordic nations might be called *Bildung*. As Lene Rachel Andersen and Tomas Bjorkman write in *The Nordic Secret*, in relation to the ideas of *Bildung* and *Allgemeinbildung*:

a high level of complexity of mind is what allows meaning-making at a higher level of complexity and it allows us to understand our society and navigate it. The more complex our inner world is, the better it matches and can handle the outer world, especially as the outer world becomes more complex. We can engage with more situations and challenges in more meaningful ways. (Andersen and Bjorkman 2017, p. 386).

This very clearly expresses something that my methodology seeks to do, to enable artists and audiences and citizens to better match their inner world with an increasingly complex outer world, and in doing so, find the ability to act on it. Developing a complexity of mind and working with complexity are not easy, but changing the way we think and stepping out of the paradigms we live in can help us to live richer lives that better enable us to co-create the future.

It has taken me a couple of decades to research and deepen what I began to explore at Birmingham University twenty years ago. I'm still thinking about patterns, about the natural world, and about how things are connected.

It is perhaps obvious to state that I have been able to develop and nurture this methodology because there is a call for it, because people invite me into diverse settings to explore the ideas. My career over the last fifteen years has increasingly been about stepping into environments where there is an art-shaped hole and seeking to fill it.

Twenty years in, I feel as though I'm just at the beginning of understanding what systems thinking has to offer us as artists, educators and creative campaigners and I look forward to continuing my research. I feel passionately that working creatively with systems thinking offers us a set of skills and methods to tackle some of the things that we as artists and change-makers often find ourselves backed into corners by. Systems thinking as applied in this way enables us to manage complexity – in form, content and conversation. It helps us to unearth unhelpful binary habits and to move towards the plural; it makes clear patterns of connection and disconnection so that we can create change; it helps us to understand how creativity works and how we can best create the conditions for it; to see the whole where we have become accustomed to focussing on parts; and to move away from linear structures to more cyclic ones. It teaches us to take account of externalities, to see the true costs of our actions. Together, these different ways of thinking and creating can add up to something that not only gives us the choice to make different sorts of artistic expressions in different sorts of ways – it also better equips us to face the necessity of creating a more sustainable life in a more sustainable world.

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