

THE GREEN [CCA] GAME

will **you** act in time?

sustainability.architecture.action

CCA

Canadian Centre for Architecture, Montreal, Canada

for ages
8+

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Alana Green
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Power Corporation of Canada Award 2010

**“In a game, players become super-empowered,
hopeful individuals.”**

- Jane McGonigal, games researcher



LOOKING DIFFERENTLY AT GREEN

The words green, ecological, and sustainable are increasingly used in applications ranging from mass media to the field of architecture. The ubiquity of these terms, however, does not necessarily mean that lay society or architects have a clear picture of the history of green or how to act in light of its apparently increasing relevance. Mark Jarzombek explains the current situation:

Sustainability is often thought of among lay society (non-architects) as a cultural good or as part of the process of cultural enlightenment ... It may have expanded our awareness of the interconnectivity of architecture and nature and it may have made demands on academe to pay attention to these issues, but it has not adequately envisioned a fully fleshed out philosophical program.¹

In architecture, the indeterminacy and ambiguity around sustainability has caused debates to drift towards the empiricism of the natural sciences.² In light of this, statistical metrics and the deployment of high-performance technologies have been the principal solutions used when designing a 'sustainable' built environment.³

Technocratic approaches, however, are efficient at editing out the larger culture within which architecture is produced. To define the place of sustainability within twenty-first century architecture, one must also examine the social, political and historic aspects of this nebulous issue. This projects looks at sustainability from a critical perspective and proposes an approach to sustainability that can be enacted today.

1 Jarzombek, Mark. "Sustainability: Fuzzy Systems and Wicked Problems" Log 8 (Summer 2006) New York: Anyone Corporation. p.. 10.

2 Jarzombek, Mark. "Sustainability: Fuzzy Systems and Wicked Problems" Log 8 (Summer 2006) New York: Anyone Corporation. p. . 11.

3 "Green CCA: Power Corporation of Canada 2010 Research Residencies" <http://www.cca.qc.ca/en/study-centre/895-green-cca-power-corporation-of-canada-2010-research>

ARE YOU GAME?

While many contemporary and historic approaches to ‘sustainable’ design have often focused upon architectural results, our research focused away from technological strategies towards the crucially participatory aspect of ‘sustainability.’ We argue that without public engagement true ‘sustainability’ is not achievable, as continuous engagement often equates longterm stewardship of ecological systems. Therefore, central to our investigation is an interest in the tools that designers can develop to encourage continuous engagement within various networks. One such tool is the game.

Games are a means of engaging individuals in collective action. People act differently when they are faced with a problem within the context of a game, compared to how they react in ‘real life’. In real life we often feel overcome, anxious, depressed or cynical when presented with difficult challenges.¹ These feelings don’t happen in game life. The rules and boundaries of a game provide reassurance that an ‘epic win’ is always possible, which challenges the player to persevere and aggressively problem-solve to accomplish this win. Within these game worlds, players become what Jane McGonigal, a games researcher, calls ‘super empowered, hopeful individu-

als.’ This switch in thinking, from cynical to hopeful, is what has long been exciting about game play, as we consider optimism, fun and individual empowerment to be more effective at encouraging sustainable action than pessimistic attitudes. It is these attitudes that are so integral to the issue of sustainability. As the British anthropologist and social scientist Gregory Bateson has said, “The way we thought about the world could change that world, and the world could in turn change us.”²

1 McGonigal, Jane. “Jane McGonigal: Gaming can make a better world | Video on TED.com,” n.d. http://www.ted.com/talks/jane_mcgonigal_gaming_can_make_a_better_world.html.

2 Smith, Daniel B. ‘Is There an Ecological Unconscious?’. The New York Times. Jan. 31, 2010.

APPROACH

Part research, part game design, this project looks beyond typical technocratic solutions to define sustainability in social terms. The Green CCA project is set in the context of rapidly expanding knowledge and design responses to the challenges of sustainable architecture. Rather than conducting a comprehensive survey of sustainability, our approach focuses on singular approaches and strategies used by designers, individuals and collectives to share knowledge and become aware of one another's contributions. One such strategy is the multi-player game.

Scenario games, board games and playful forms of protest were the precedents for a game of our own design. Players take turns moving their pieces along the game board, following multiple paths that trace timelines organized into sustainable thematics such as water and energy. To win the game, players gain points by completing local activities inspired by events that are distant in time or place.

Playing this game brings to light an edited sampling of our diverse research done at the CCA. Implicit in the rules and operations of the game lie our interests in feedback loops, co-authorship, the interrelations of individuals to groups, and the cognitive processes that we see as integral to living in a way that is environmentally conscious.

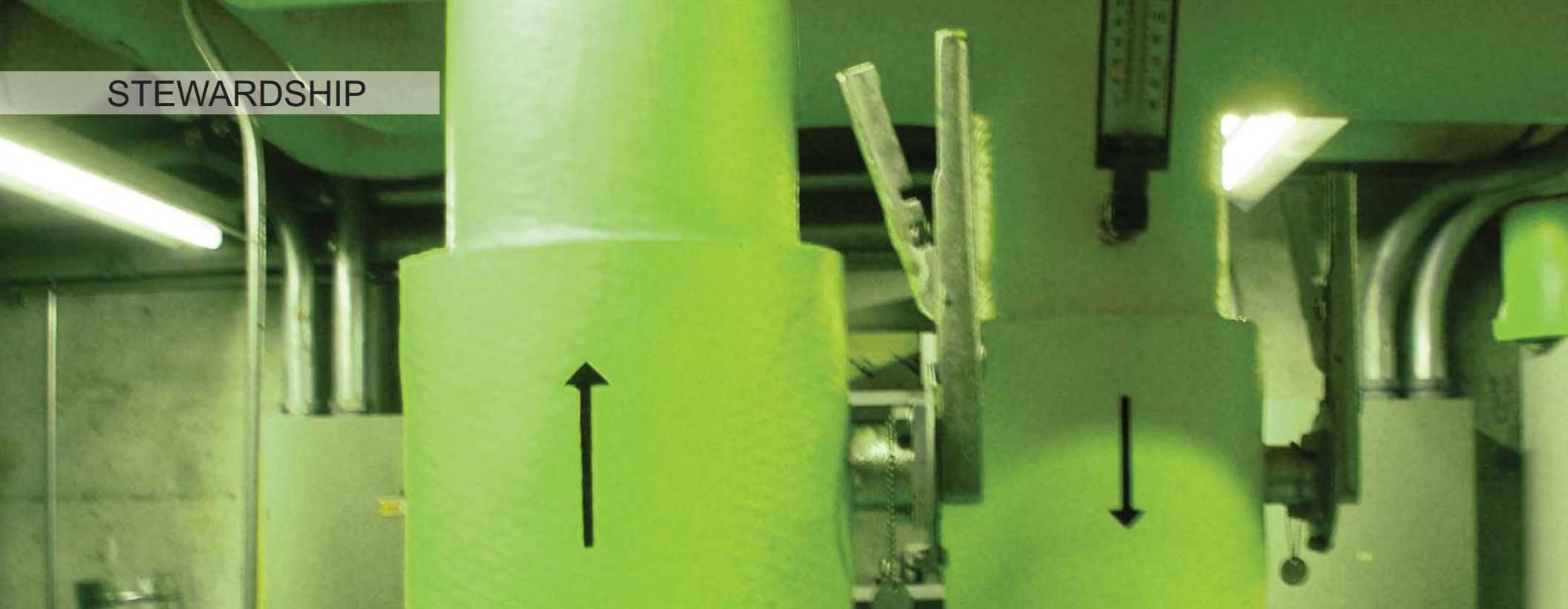
Are you game?

Presented by the 2010 recipients of the Power Corporation of Canada award: Jennifer Davis, University of Toronto, Alana

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STEWARDSHIP



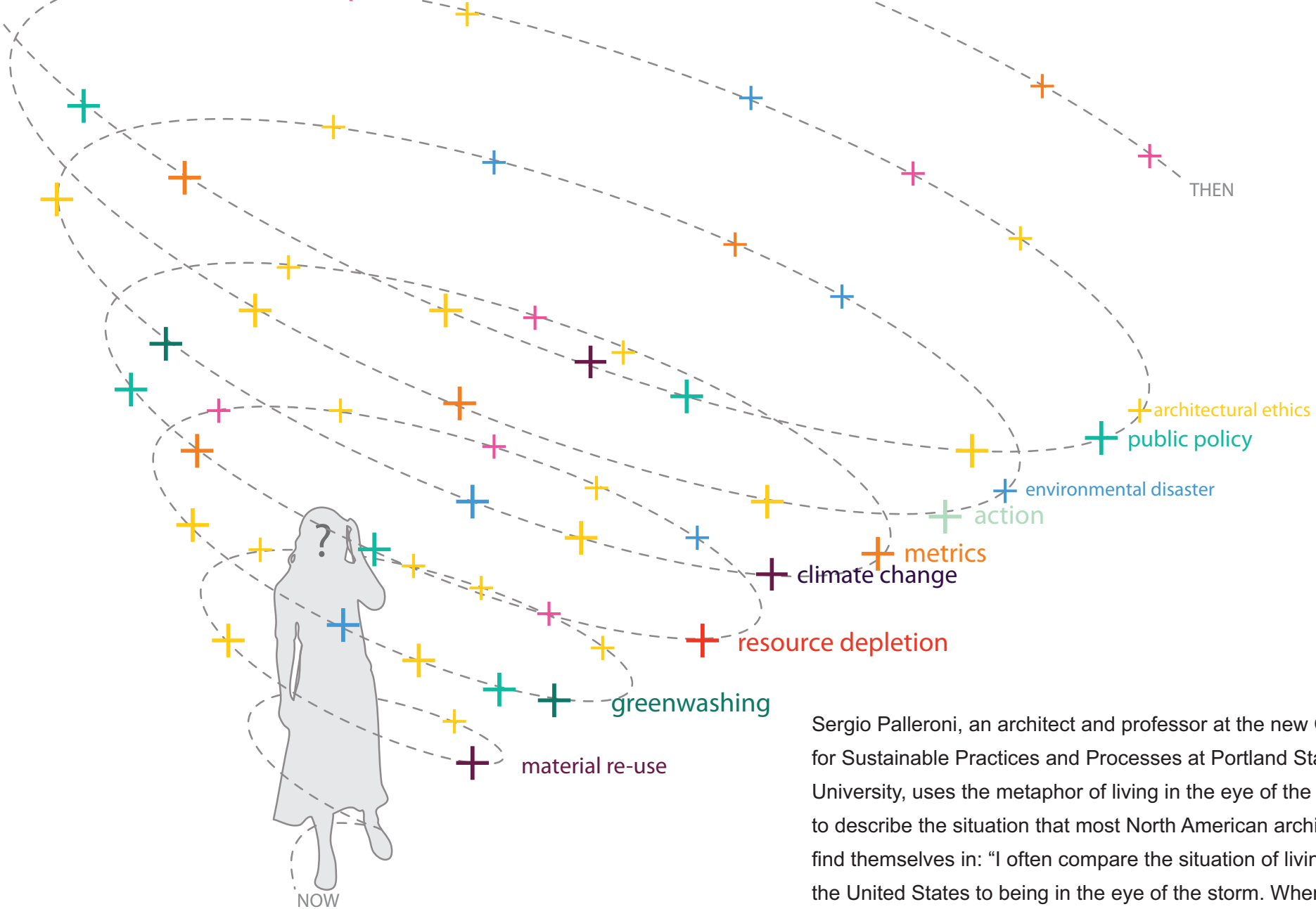
"We've got to be 'lifers.' My wife is always saying, 'We need sustainable activism.' You can't just be a one-issue person who burns out in the end. We've got to be in this for a lifetime."
- David Suzuki¹

A major challenge for those concerned with environmental issues is how to prevent 'green fatigue' amongst the public. By exploring strategies that engage the public, giving them the ability to act and effect change, designers can encourage continuous stewardship of ecological systems. Without this

continuous engagement, true 'sustainability' is not achievable. CCA Building Manager Jose Oliveros knows the CCA's building and grounds better than anyone else. He's been here since the building was first built, and has grown with the building, educating himself about emerging technologies and making decisions over the decades to improve the quality and efficiency of the building.

Oliveros' philosophy is one of preventative maintenance through systems of careful observation. These systems are manipulated for optimal efficiency, relying on the careful innovation and responsiveness of its steward for efficient use.

¹ Dixon, Guy. "David Suzuki looks back with a hint of regret." The Globe and Mail, June 29, 2010.



Sergio Palleroni, an architect and professor at the new Center for Sustainable Practices and Processes at Portland State University, uses the metaphor of living in the eye of the storm to describe the situation that most North American architects find themselves in: “I often compare the situation of living in the United States to being in the eye of the storm. When you are standing in the eye of the storm, everything seems calm. But as you step away... you realize that this storm you’re at the center of is changing the rest of the world dramatically.”¹

¹ Sergio Palleroni, ‘Building Sustainable Communities’, *Expanding Architecture: Design as Activism*, p. 275

1973

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2000

2001

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2006

2007

2008

2009

2010

New Alchemy Institute - The Journal of the New Alchemists
Aleksander - Odsobnovenie Gorodskoi Sedy Pri Planirovke Zhilykh Rayonov
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Scott - Dimensions of Sustainability: Architecture, Form, Technology, Environment, Culture

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Université de Montréal - Cinq Propositions Pour Un Hot Ecologique

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Fernández - Arquitectura Y Ciudad: Del Proyecto Al Eco-Proyecto
Corbello - En Busca De Una Arquitectura Sostenible Para Os Tropicos: Conforto Ambiental

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Van Schalk - Ecocells: Landscapes and Masterplans by Hamzah & Yeang

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Oehler - Grosse Passivhäuser

Freeman, Winter Cities Association - Shaping Cities for Winter: Climatic Comfort and Sustainable Design
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Gastrand - The Luxury of Being Unconstructed
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Office Experiment: Takenaka Corporation Tokyo Main Office

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Musso - Building Simply

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Farina - In-Between: Paezaggio, Condizioni E Risposta Del Progetto Sostenibile

Dean - Proceed and Be Bold: Rural Studio After Samuel Mockbee
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Babaliss - Mancuso - Ecopolis: Sustainable Planning and Design Principles

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Glicksman, Glicksman - Sustainable Urban Housing in China: Principles and Case Studies for Low-Energy Design

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Summary Book

Chappis, Fondation pour l'action culturelle internationale en montagne - Ma Montagne: Du Réve à La Réalité
Rosen et al. - In the Mind of Cornelia Oberlander

Richardson - XS: Small Structures, Green Architecture
Imperial et al. - ACI Macau: Architecture Culture Environment Macau

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Gallotti et al. - Logistics: Sustainable Development & Développement Durable
Filletti, Piscitelli - Andrea Giusti: Architettura Reali

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Cumberledge - Design and Landscape for People: New Approaches to Renewal

Costa Duran - Green Homes
Busby - Busby: Learning Sustainable Design

Borasi et al. - Le Paradigme Solaire The Solar Paradigm
Reynolds et al. - The Earthship Sustainable Housing Concept

Babaliss - Ecopolis: Conceptualising and Defining Sustainable Design
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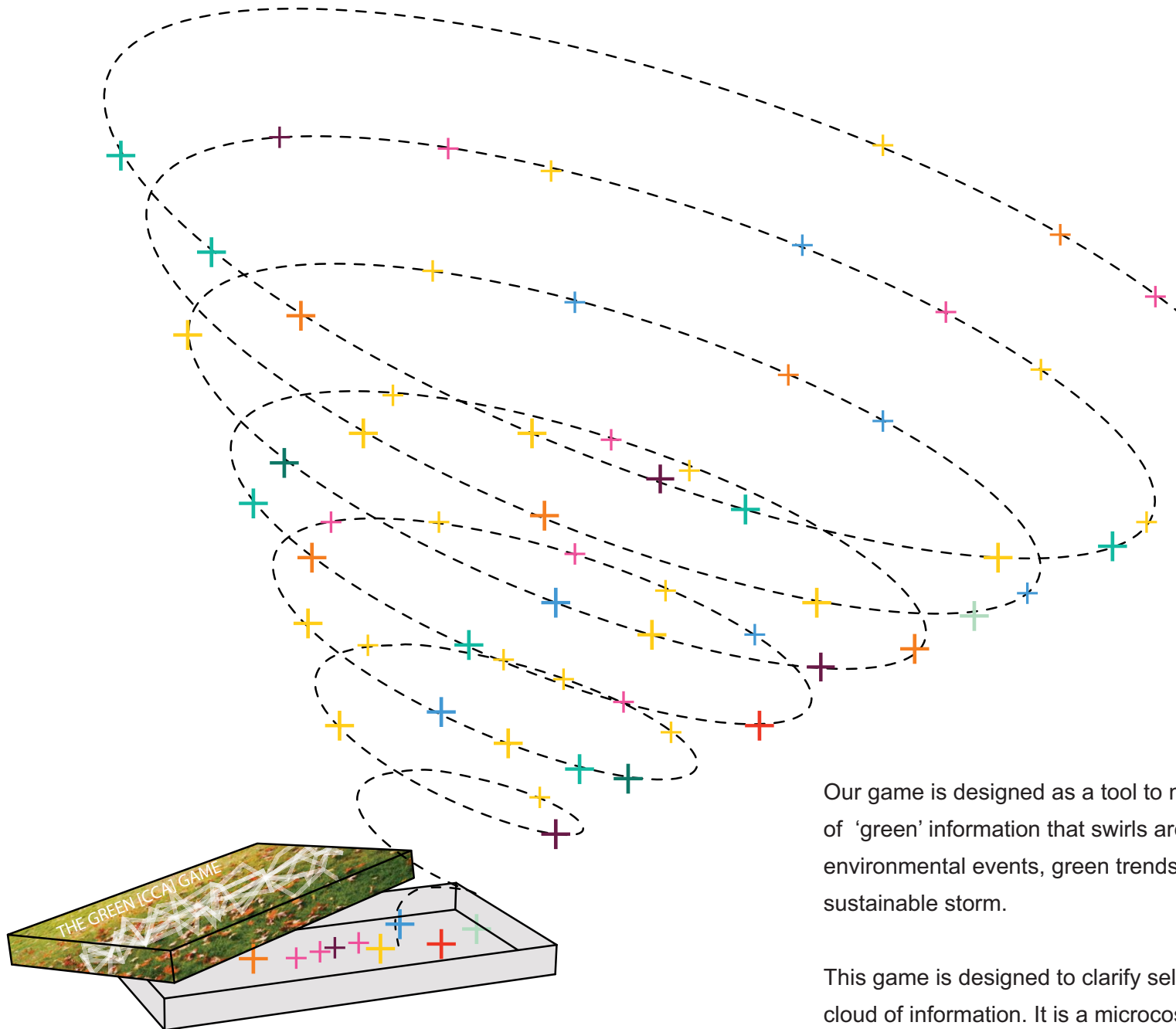
Farel, Benoit - Bâtir Éthique Et Responsable
Allen - Colloque Développement Durable? Sustainable?: An International Colloquium

Suske - Ekologická Architektura Vs. Stinu Moderny

"SUSTAINABLE ARCHITECTURE" AT THE CCA

This diagram illustrates the growing body of knowledge on Sustainable Architecture since the 1970's at the CCA. It can be regarded as a cross section of a swelling cloud of 'green' information. The bottom layer is a listing of all 177 titles retrieved through a subject search for "Sustainable architecture"¹ in the CCA library catalogue and the top layer shows some 30+ events, lectures and programs relating to Sustainable Architecture organized by the CCA since 2006. The first book on Sustainable Architecture at the CCA had a publication date in 1973, by contrast in the year 2008 28 titles were published.

1 "Authorities & Vocabularies (Library of Congress): Sustainable architecture," <http://id.loc.gov/authorities/sh00004838>.



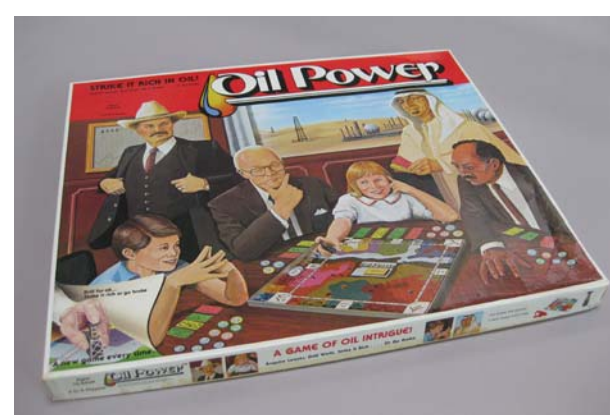
Our game is designed as a tool to navigate the growing cloud of 'green' information that swirls around sustainable actions, environmental events, green trends and global ecologies, the sustainable storm.

This game is designed to clarify selected threads within this cloud of information. It is a microcosm of a larger problem, as a neatly packaged tool to make the problem digestible.

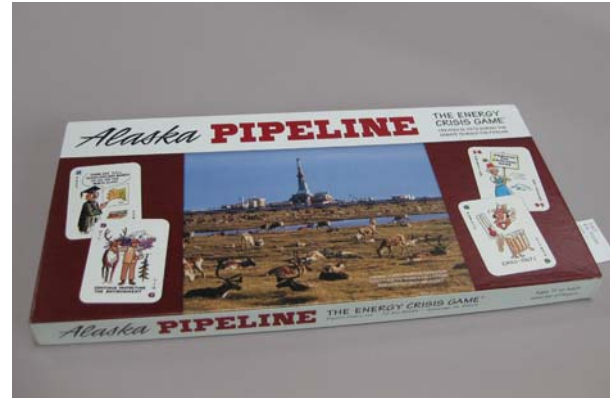
THE VALUES OF GAMES

Looking at a game - its goals, rules and operations - can reveal the social context of the era in which it was developed and popularized. The CCA's exhibition, *Sorry Out of Gas: Architecture's Response to the 1973 Oil Crisis* (2007-2008) featured board games that took the energy shortage as their starting point. These games can be classified into several categories. One group of games frames oil, and its scarcity, in capitalistic terms. Games such as *Oil Power* have the goal of becoming the richest player, and oil provides the source of the power and wealth to be achieved. Another category of games takes the dual concept of war/oil as a starting point. Players enact simulations of strategic war maneuvers that emulate real-life power struggles between nations that produce and consumer petrol. The third category of games has a more educational bent and players deal with managing an oil crisis. In games like *Alaska Pipeline* and *Energy Crisis Game*, players take in to consideration the stakeholders vying for limited oil supply while the aim of *The Milage Game* is to travel the furthest distance by car and using the least fuel as possible.¹

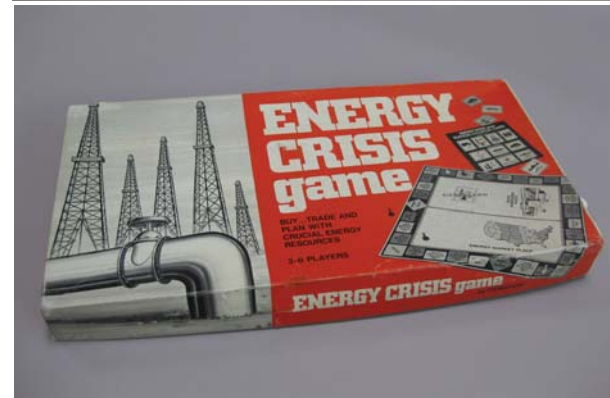
¹ Borasi, Giovanna et al. *Sorry, Out of Gas: Architecture's Response to the 1973 Oil Crisis*. Montréal, Québec: Canadian Centre for Architecture, 2007. p. 72.



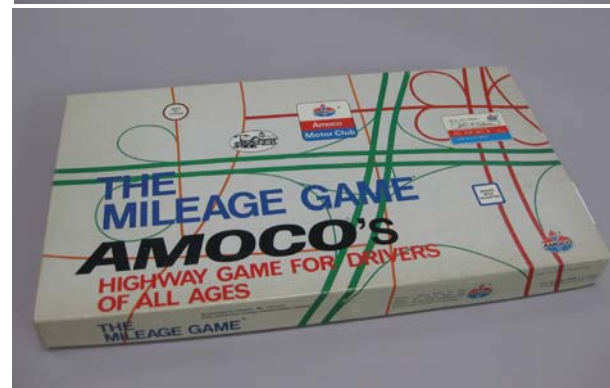
Oil Power.
Antfamco Inc., Carmel,
Indiana, 1982. Canadian
Centre for Architecture
Collection, Montreal.



Alaska Pipeline: The
Energy Crisis Game.
Pipeline Games, LLC,
Anchorage, Alaska,
1973/1990. Canadian
Centre for Architecture
Collection, Montreal.



Energy Crisis Game.
Itemation Inc., New York
1973. Canadian Centre
for Architecture Collec-
tion, Montreal.



The Milage Game:
Amoco's Highway Game
for Drivers of All Ages.
Cadaco Inc., Concept
Communications Co., and
Amoco Oil Co., Chicago,
Illinois, 1976. Canadian
Centre for Architecture
Collection, Montreal.

GAME STRUCTURE

In any game there exists the 'natural' rules and the 'conventional' rules. The 'natural' rules relate to the principal activity of the game which are constrained by material reality. The 'conventional' rules, on the other hand, are virtual and give the game activity a goal, a means for judging quality and can add an element of surprise back into the game. Both the physical and virtual parts of a game are required and mutually reflect and rely on each other.¹

¹ Jones, Wes. "Architecture Games." Log 19. New York: Anyone Corporation. 2010. 29-35.

The Rule Book outlines the actions that players take during the course of the game. The goal of the game, and the criteria for reaching that goal, are typically the first items presented in the Rule Book and can be one of the most telling aspects of the value systems at the foundation of the game. The goal of the game *Oil Power*, for example is "To become the richest player".



Welcome to the hard-hitting, gusher-exploding, win-big-or-lose-bigger world of the oil tycoon!

Looking at the playing board, you will see that it is divided into several sections of different colors. These are the oil fields and drilling areas. You will try to buy color-matched leases in order to gain **DRILLING RIGHTS**.

Then the real excitement begins as you position the derrick and drill. Will you hit a **DRY HOLE**? Or will it be a **GUSHER**?

It's all part of the fun and excitement of **OIL POWER!**

HOW TO PLAY

OBJECT:

To become the richest player.

WHO CAN PLAY?

Two to six players. Recommended ages: Ten to adult.

SETTING UP:

Put top on box. Hold box flat. Shake briskly in a circular motion. This movement will re-distribute the oil pools so that every game will be different. Place the box in the center of the table. Remove top and take care not to bump or move the board from this point through the game.

Each player selects a playing marker and places it on **PAY TIME**. Place drilling derrick in the proper place in the center of the board. Shuffle yellow and blue **PROVIDENCE CARDS** together. Then place the stack in the proper place in the center of the board with pipeline side up.

BANKER:

One player, or spectator, may be the **BANKER**. **BANKER** issues the following currency to each player:

- 1 — \$10,000 bill
- 1 — \$ 5,000 bill
- 5 — \$ 1,000 bills
- 6 — \$ 250 bills

BANKER organizes remaining money for quick access. He also will conduct all banking functions during the course of the game.

The **BANKER** is also in charge of **LEASE CARDS** and will organize them so they can be located quickly when they are purchased during the game.

HOW TO START:

Players place markers on **PAY TIME**. Each player rolls dice, and the player with the highest number goes first. Player advances on the board **CLOCKWISE**. Player to the **LEFT** of the first player goes next, then the player to the left, and so on. More than one marker can occupy any space at any time. A player must also pay royalties or taxes due and obey instructions on each space on which he lands.

When a player rolls doubles, this permits him to roll again up to three doubles.

BUYING LEASES:

A player may buy the **LEASE RIGHTS** to any unowned lease space on which he lands by paying the bank the amount shown on the lease space. A lease card is then given to the purchaser by the banker.

SPECIAL SPACES (Pay Time, Providence, Roll-Again, Lease Tax, Free Well, Give & Take and Advance or Retreat) have special instructions. See below.

PAY TIME:

When player passes or lands on **PAY TIME**, he receives \$2,000 from the bank.

PROVIDENCE:

Two spaces on board are marked **PROVIDENCE**. When player lands on **PROVIDENCE**, he picks top card from stack of **PROVIDENCE** cards.

YELLOW CARD indicates **PLAYER'S CHOICE** — If card is taken and read, it must be used and then placed on the bottom of stack. **BLUE CARD** indicates **NO CHOICE**. Player must take card and follow its instructions. Cards are then placed on bottom of stack.

ROLL-AGAIN:

When player lands on **ROLL-AGAIN**, he gets another turn. If he rolls doubles, he can roll once more.

LEASE TAX:

When player lands on **LEASE TAX**, he pays bank \$1,000.

FREE WELL:

When player lands on **FREE WELL**, he gets to drill one well for free if he owns all lease spaces of one color.

GIVE & TAKE:

When player lands on **GIVE & TAKE**, he must roll again. If he rolls under six, he pays \$1,000 to the bank. If he rolls six, or over, the bank pays him \$1,000. **Player** does not move marker on this roll.

ADVANCE OR RETREAT:

When a player lands on **ADVANCE OR RETREAT**, he rolls the dice and must move backward or forward the number of spaces rolled. If he rolls under six, he moves the marker backward the number on the dice. If he rolls six, or over, he moves the marker forward the number on the dice.

WELL DRILLING:

A player who owns **ALL LEASES OF A COLOR** may drill for oil by paying the bank \$250. A well is drilled by placing derrick over drilling site (hole) of player's choice. The drill shaft is then pushed down until it stops. If a player hits oil, the amount will be shown in the window on the derrick. A pumpjack is then placed on the drilling site to mark the oil found. A yellow pumpjack is placed on a 50-barrel well and is equal to 2 points. A red pumpjack is placed on a 100-barrel well and is equal to 4 points. A blue pumpjack is placed on a gusher and is equal to 20 points in a long game, or 40 points in a short game. No pumpjack is placed on a dry hole.

One well may be drilled per turn unless player rolls doubles. Then a well may be drilled on each roll if player pays to drill before each roll. Player may roll no more than 3 sets of doubles. Player may drill more than once if he lands on **FREE WELL**, or draws **PROVIDENCE** card, permitting him to drill. A player may drill only on his turn.

PAYING ROYALTIES:

When a player lands on a lease owned by another player, he must pay the owner a royalty. To determine the amount of royalty due, follow the instructions on the **QUICK CALCULATION CHART**. The owner must claim royalty before next roll of the dice.

The last page of the instructions has an example of how to use the Quick Calculation Chart.

LENGTH OF GAME

The length of a game should be decided several ways before starting your game. First decide whether you will use the Short-Game Gusher, or Long-Game Gusher as shown on the Quick Calculation Chart. Second decide when the game will end by one of the ways below:

1. After a set period of time . . . 1 hour, etc.
2. After the first bankruptcy.
3. When only one player remains.

SELLING OR TRADING LEASES OR PROVIDENCE CARDS:

Trading is allowed between two players for sale or trade of **UNDRILLED LEASES**. Trades must be conducted only on player's turn in one minute or less.

LOANS & CREDIT:

No player may loan to, or borrow from another player.

WATER FLOOD:

When player needs money to pay another player, he may water flood one or more of his producing leases and receive the same amount of money from the bank he would normally receive if another player had landed on his leases. All pumpjacks must then be removed from the drilling areas and the leases may not be reactivated during the game. Lease cards must be turned over with color side down when water flooded. The Quick Calculation Chart will help player determine what the water flood amount is. Only leases where player owns all lease spaces may be water flooded.

If water flooding will not save a player from bankruptcy, leases and active wells must be passed on in tact to whomever cannot be paid.

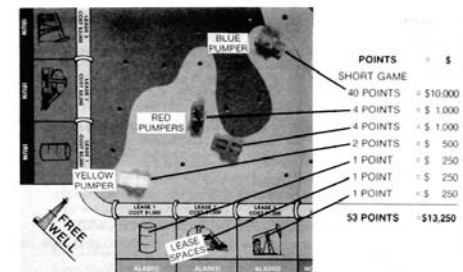
BANKRUPTCY:

A player is bankrupt when he cannot pay the bank or another player what is owed. When this occurs, the player must surrender everything to whomever cannot be paid. If leases go to the bank, they may not be resold. If the leases go to another player, he may then collect normal royalties for lease spaces and wells and may drill more wells, if he leases have not been water flooded.

DETERMINATION OF WINNER AND END OF GAME:

The richest player at game's end is the winner. The value of Leases and Wells can be determined by using the **QUICK CALCULATION CHART**. Money is valued at face value.

OIL POWER™
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Carmel, IN 46032
317-846-6631



THIS PICTURE IS AN EXAMPLE OF HOW TO DETERMINE THE ROYALTY DUE USING THE QUICK CALCULATION METHOD. A SHORT GUSHER GAME WAS SELECTED.

GAME REPLACEMENT PARTS

We want this game to bring you happiness and fun for years to come. In the event parts are lost or destroyed, they can be purchased as explained below. Dice and markers can normally be purchased at a local toy and hobby store.

| | Part No. | Color | Minimum Quantity | Cost |
|------------------|----------|---------|------------------|--------|
| PUMPERS | 44013 | Yellow | 20 pcs. | \$1.00 |
| | 44014 | Red | 20 pcs. | 1.00 |
| | 44015 | Blue | 20 pcs. | 1.00 |
| DRILLING DERRICK | 44012 | Black | 1 pc. | \$1.50 |
| OIL POWER MONEY | 44045 | Various | 1 Set | \$1.00 |

The game replacement parts above can be purchased by writing to Oil Power, Antfamco, Inc., 120 W. Main St. Carmel, IN 46032. Please be sure to order by Part Nos., as shown above, and to include payment for your parts, plus \$1.00 for mailing and handling costs.

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WORLD GAME

The World Game (short for World Peace Game) is by and large a simulation of world politics and resource distribution through multi-player role play. The purpose of the World Game, as Buckminster Fuller put it, is to: “Make the world work, for 100% of humanity, in the shortest possible time, through spontaneous cooperation, without ecological offense or the disadvantage of anyone.”¹ The game emerged in 1972 during the birth of the Environmental movement in and it considers the entire Earth as the new unit of analysis. In addition to the US Pavilion Fuller also proposed a World Game Pavilion for the Montreal Expo 67. This proposal consisted of game play facilities for thousands of players and a massive Dymaxion map where visualizations of the world’s resources and the results of the World Game could be displayed. The World Game is an example of complex, multi-player interaction, the result of which would be spontaneous cooperation. It presents a platform that takes individual desires and decisions and aims to visualize their collective impact as a form of feedback. Antoine Picon has commented on Fuller’s World Game as being part of Fuller’s larger preoccupations, namely his belief that humans have the capacity to steer “Spaceship Earth” towards a kind of green utopia, a utopia that is “less a definitive state of affairs than an open-ended process, a process that should furthermore empower the individual instead of giving precedence to impersonal collectives.”²

1 “World Game | The Buckminster Fuller Institute,” <http://www.bfi.org/about-bucky/buckys-big-ideas/world-game>.

2 Antoine Picon. “Fuller’s Avatars” p.47 in R. Buckminster Fuller, *Buckminster Fuller: Starting with the Universe* (New York: Whitney Museum of American Art, in association with Yale University Press, 2008).



Playing the World Game. Image from Baldwin, J., Cedric Price Library, and Cedric Price fonds. *BuckyWorks: Buckminster Fuller's Ideas for Today*. New York: John Wiley. 1996. pp. 198. © World Game Institute, 1994.

SCENARIO GAME PLAY

Understood as an open-ended process, a multi-player game can reveal the complex dynamics of a given scenario. Scenario-game play has a history of use in the conditioning of a group's performance (i.e. war games) or in the prediction of the cumulative effects of individual decisions on a system (i.e. stock market simulations). In the disciplines of planning and architecture the scenario game has served a role in collective decision making, particularly in community planning situations. One recent example is the Thames Gateway Cross River Park Area Scenario Game organized in 2006 by Architecture and Urbanism group CHORA,¹ another is the "Prospective Game for a Sustainable City Project" held at the French pavilion during the 2004 Biennale di Venezia.²

In both of these examples the games are designed and facilitated by a group of design professionals and both games involve a narrow set of selected participants (stakeholders) who are somehow involved in disciplines related to architecture or development. Moreover, both games are essentially an accelerated simulation of the planning and design process, their outcome is meant to provide a series of design possibilities against which real world considerations and issues can be tested. This brings up the question of whether a scenario game could be expanded to include a broader set of participants (stakeholders) and whether it could be adapted to accommodate for real life game play beyond the controlled simulation.



1 Chora Architecture and Urbanism. *Cross River Park Scenario Games I*. 2006. <http://www.chora.org/>.

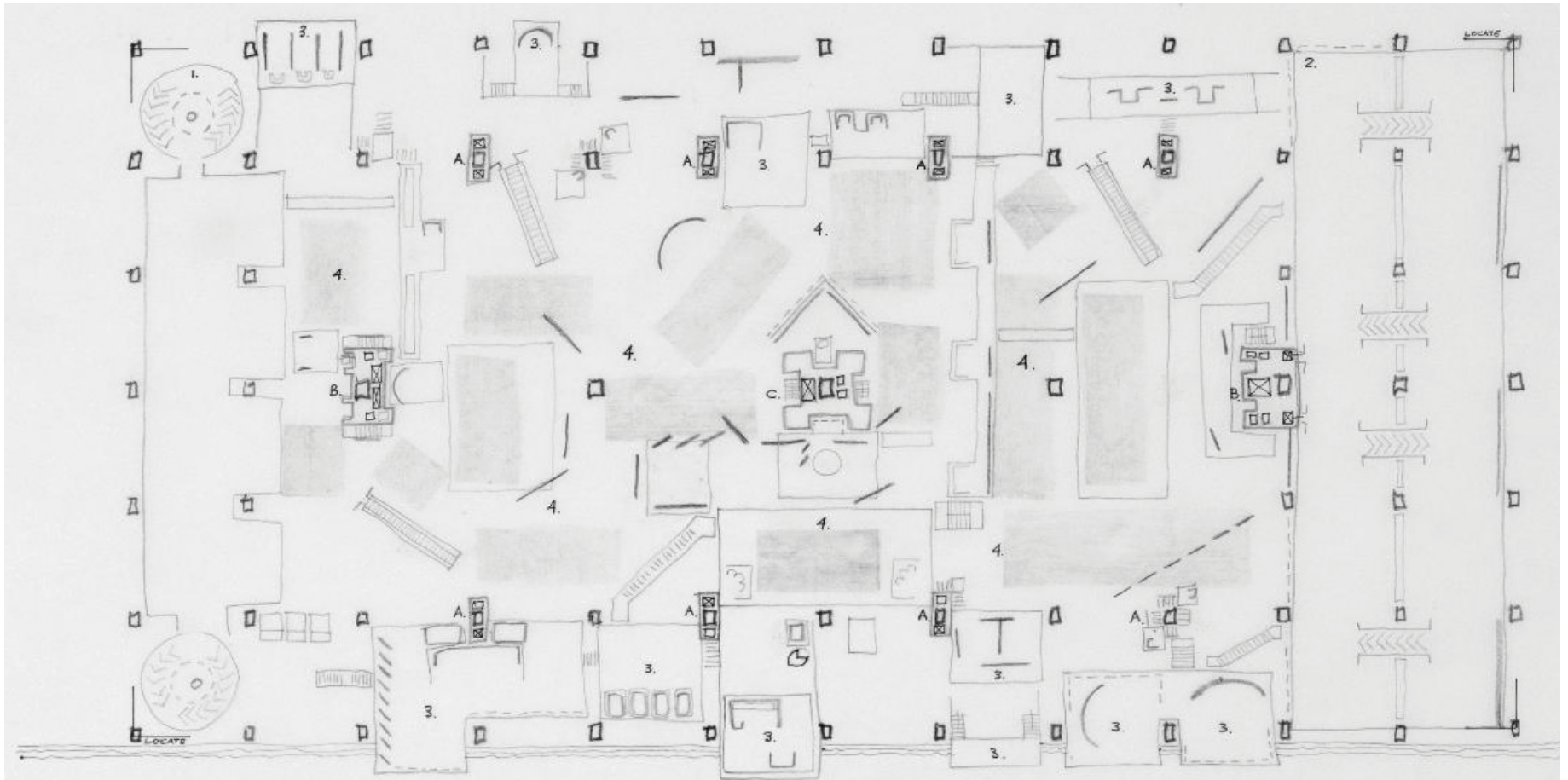
2 Biennale di Venezia, *Métamorphoses Durables: Jeu Prospectif Pour Un Projet De Ville Durable*: 2004, 2014, 2034, 2064 (Paris: Moniteur, 2004).

Chora Architecture and Urbanism.
image of Thames Gateway Cross River Park
Scenario Game Session 1, London, 28 April
2006. © Chora Architecture and Urbanism.

FUN PALACE

The Fun Palace by Cedric Price, Joan Littlewood and Gordon Pask is often cited as one of the first examples of an anticipatory or responsive environment. This speculative project was intended to be the site of an experimental theatre where cranes, people-movers, escalators, flexible walls and ceilings produce dynamic spaces that are determined by the desires and activities of its users. The type of interaction implied

by this building is akin to that of a multi-player game with very complex goals. The actions and desires of each individual affect a physical outcome registered in the buildings movement, thus the building itself acts as a kind of feedback device displaying the collective 'moves' of its players. Unlike a game, the Fun Palace is 'the real thing' and suggests how playful theatrical and social activity might activate the built environment in unexpected ways.



Cedric Price, Fun Palace Diagrammatic Plan, 1963. © Canadian Centre for Architecture Collection, Montreal.

THE CCA INSTITUTION: BUILDING KNOWLEDGE

The CCA's network of people, and the intensity of knowledge they have/possess, is one of the Institution's most valuable resources. This knowledge is mediated and interpreted to various publics using a variety of pedagogical approaches,

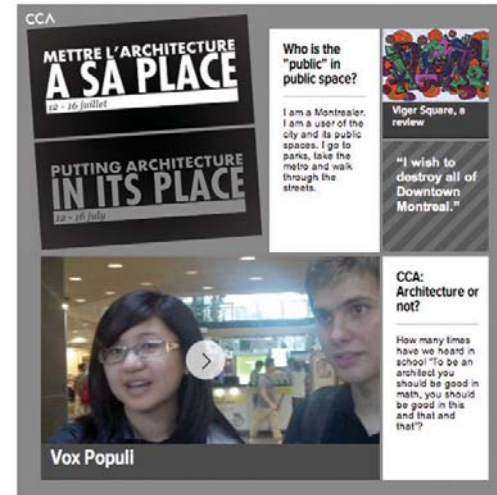
media and time scales and implemented by experts in different departments. These precedents already in play at the CCA can provide starting points for the speculations of our game and how it can be calibrated for various audiences, contexts and time frames.



Family Program
The Fox's Trot

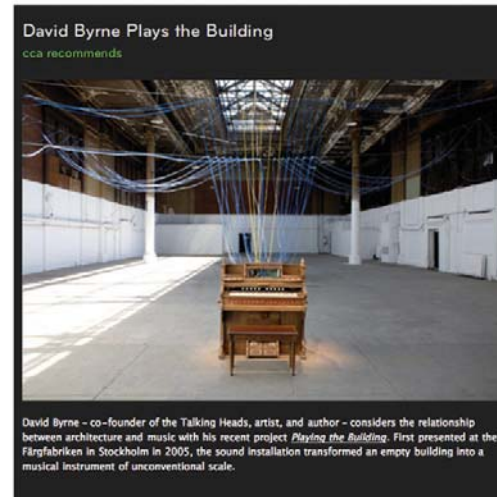


Scholar's Choice



All images are screen grabs from the CCA website

Day Camp
Putting Architecture in its Place



CCA Recommends

DESIGNING A GAME BOARD

A PERMANENT STATE OF BECOMING

Anthropogenic 'Climate change' is a continuously developing phenomena, unfolding so slowly that it is often easy to forget that it is happening at all. This often invisible catastrophe has been described by the architect Ross Adams as "a non-event" with its only definable characteristic being its constant state of "permanent becoming."¹ Becoming *what*, we do not know.

This permanent state of becoming has resulted in the continuous recycling of terms to describe products designed with an environmentally ethical intent. At times rebranded as 'alternative', 'sustainable', 'green' or 'environmentally friendly', these terms have become ubiquitous and passive buzzwords within architectural discourse, often rooted in a reverie of monological thinking.

¹ Adams, Ross. "Approaching the End: Eden and The Catastrophe." Log 19 (Spring/Summer 2010): 87.

Martin Creed. Work No. 289: *EVERYTHING IS GOING TO BE ALRIGHT*, Installation at The British School, Rome, 2003. © Martin Creed.



EVERYTHING IS GOING TO BE ALRIGHT

SUSTAINABILITY & TIME

Green, ecological, and sustainable are three words that are often used interchangeably. Of the three, 'sustainable' has the most easily traced provenance resulting from a series of institutional initiatives, primarily United Nations conferences.¹ In 1987, the World Commission on Environment and Development published a report, "Our Common Future" ("The Brundtland Report") that defined sustainable development as involving "those paths of social economic progress that meet the needs of the present without compromising the ability of future generations to meet their own needs."² The definition is interesting as it sets up a particular temporal paradigm in which present decision making and actions are seen in light of their future effects. The past is implicit in this definition as well, since to think about the legacy one leaves behind is to imagine the current moment as an historic one. Susannah Hagan touches on the interconnectedness of past, present, and future and how our concept/value of 'the new' might begin to change within design practice:

The relation of environmental architecture to the new is the the difficult one of inclusion, embracing the future as well as the past Sustainability anticipates a future that is a rupture with the present, a shift away from the new-as-

novelty to the new-as-renewal of the built and natural environments, a renewal that depends as much on new ideas and techniques as it does on reinstated ones."³

Plotting our research along a timeline was a way of organizing and understanding how seemingly unrelated events could be related to current perspectives/meanings and possible futures of sustainability [resurrect historic methods/ideas that might be valuable/useful to us]. The authors of Cartographies of Time explain that the timeline, as a ideal model of how time looks graphically, does not appear until modernity.⁴ When Joseph Priestly, an English scientist & theologian, published the Chart of Biography in 1765, he set the standard for the timeline that we know today. Yet, he was aware of the inherent benefit and problem of this representational method - while it could emphasize an overarching pattern and big story, it made it difficult to look at history in a way that allowed for alternate non-linear readings that traced irregular subplots or that used the method of comparing and contrasting between eras. This analysis lead Priestly to admit that the timeline was "most excellent mechanical help to the knowledge of history", "not an image of history itself."⁵ For us, the timeline is a tool that we employ to look at time, acknowledging its utility and grappling with its inherent difficulties.

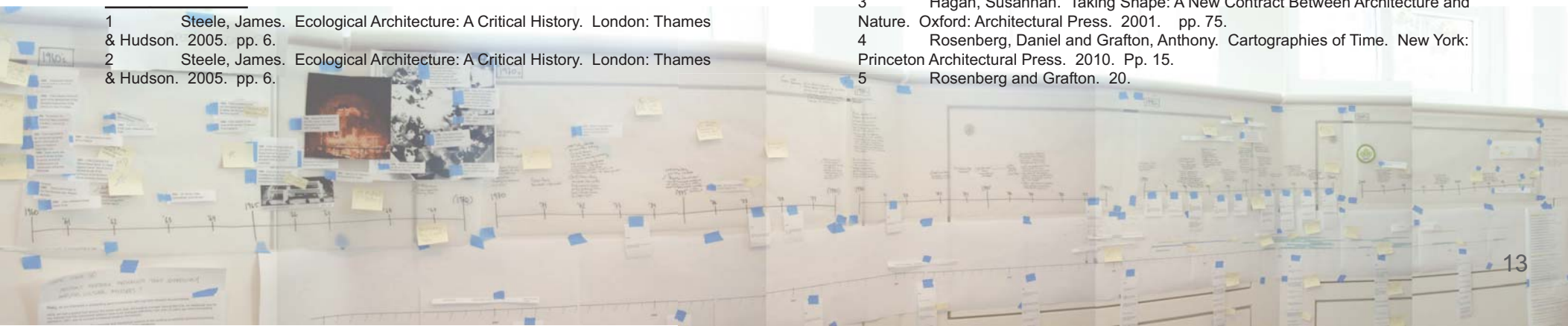
1 Steele, James. Ecological Architecture: A Critical History. London: Thames & Hudson. 2005. pp. 6.

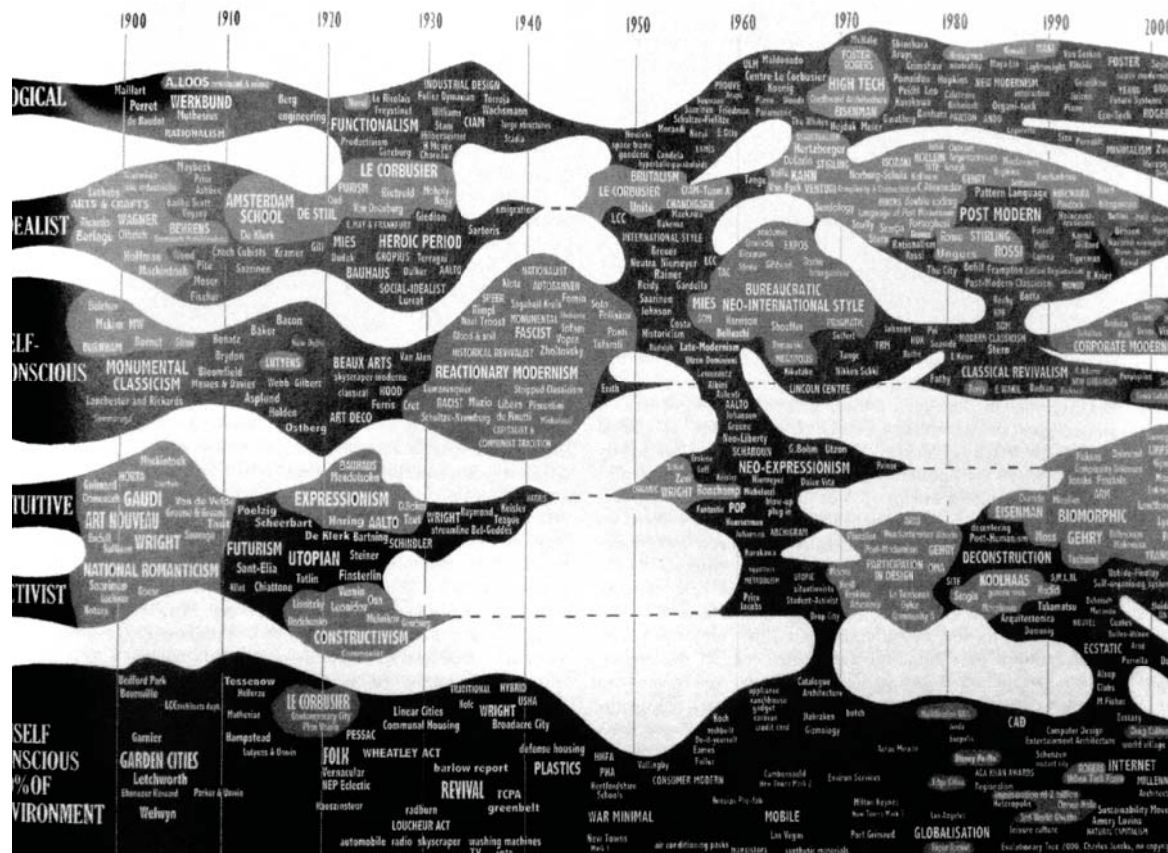
2 Steele, James. Ecological Architecture: A Critical History. London: Thames & Hudson. 2005. pp. 6.

3 Hagan, Susannah. Taking Shape: A New Contract Between Architecture and Nature. Oxford: Architectural Press. 2001. pp. 75.

4 Rosenberg, Daniel and Grafton, Anthony. Cartographies of Time. New York: Princeton Architectural Press. 2010. Pp. 15.

5 Rosenberg and Grafton. 20.





Jencks, A. Charles. "The Century is Over, Evolutionary Tree of Twentieth-Century Architecture." *Architectural Review* (July 2000). p. 76. © Charles A. Jencks.

common message: there is no grand narrative. For Jencks, history is "a competitive drama, a dynamic and turbulent flow of ideas, social movements, technical forces and individuals all jockeying for position."² By bringing the messy and contradictory aspects of history to the fore, Jencks' editing process is an attempt to somewhat compensate for the more extreme distortion that comes out of the exclusionary methods of historical writing.³

Interestingly, neither timeline is intended to be a decisive and static authority. The printed version of the Complex History refers the reader to a "more comprehensive" version of itself in the ephemeral space of the internet.⁴ The Evolutionary Tree is accompanied by a text in which Jencks explains that the turn of the millennium was ripe occasion to publish his diagram. This diagram is meant to be a provocation, a catalyst for further debate in this moment when "interpretation begins!"⁵

2 Jencks, A. Charles. "The Century is Over, Evolutionary Tree of Twentieth-Century Architecture." *Architectural Review* (July 2000). p. 76.

3 Jencks. 77.

4 Djalali and Vollaard. 33.

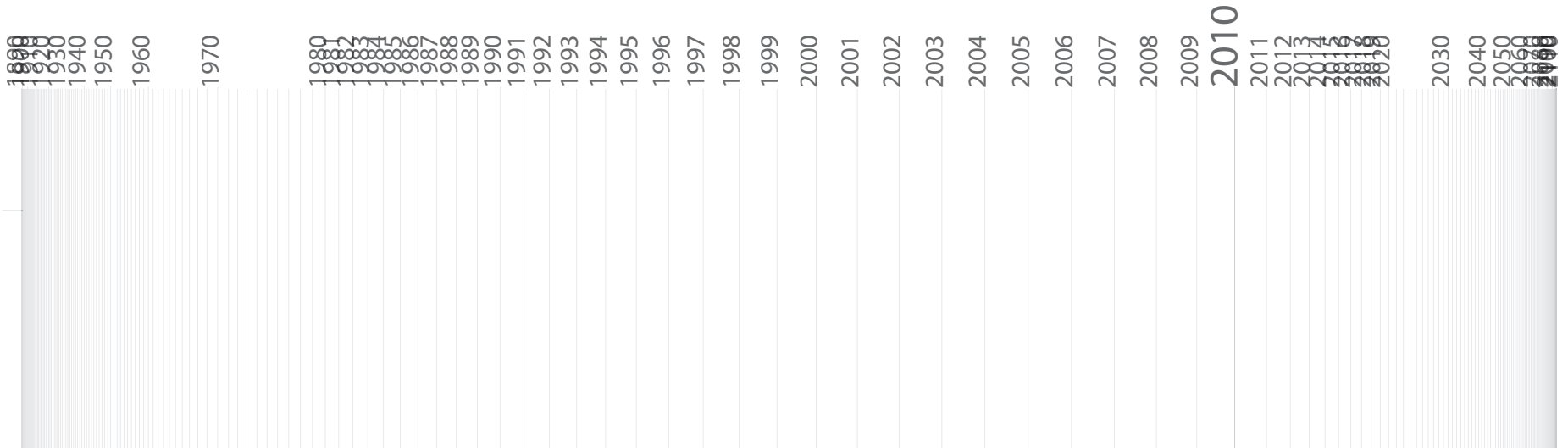
5 Jencks. 79.

BUILDING A TIMELINE

Designing a timeline for the history of Sustainability in relationship to the CCA presented some problems: where does the timeline start and end, and how can this range of time be scaled and represented. Our timeline focuses on a forty year period roughly between 1970 and 2010 for several reasons. Firstly, our initial research showed that the volume of published work on Sustainable Architecture has been climbing since 1973 (the year of the Oil Crisis). Secondly, the life of the CCA as an institution began in 1979 and we felt it appropriate to focus on a range that could accurately represent the CCA's own lifespan. Finally, this focus relates on our own individual

perception of time giving more weight to current events and 'recent' history.

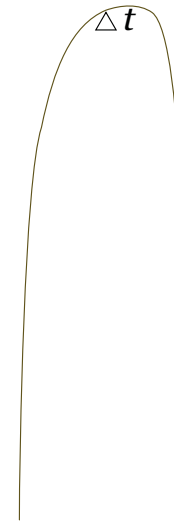
The problem of representing a focused period of history, while acknowledging that important events can precede and follow this period, was addressed by looking at historical examples of timelines that use uneven time intervals. We were interested in timelines where the scale of time intervals is determined by the volume of events and where the viewer has the possibility to project into both the past and the future.



TIMELINE INTERVALS



1. Linear, evenly spaced representation of time (200+ years)



2. Time is bent along a flexible curve to define an area of focus



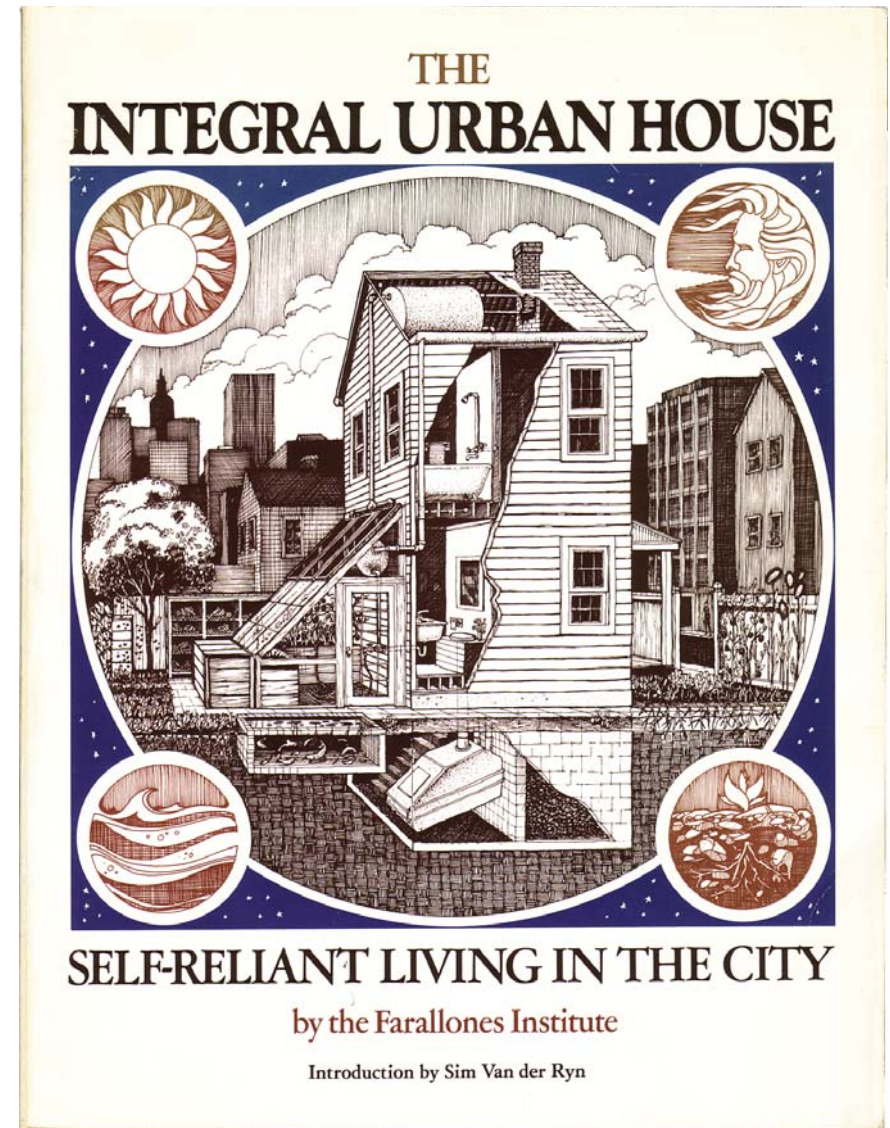
3. Plateaus have wider spacing whereas slopes have tighter spacing



4. Time intervals are projected onto a new line (200+ years, 40 year area of focus)

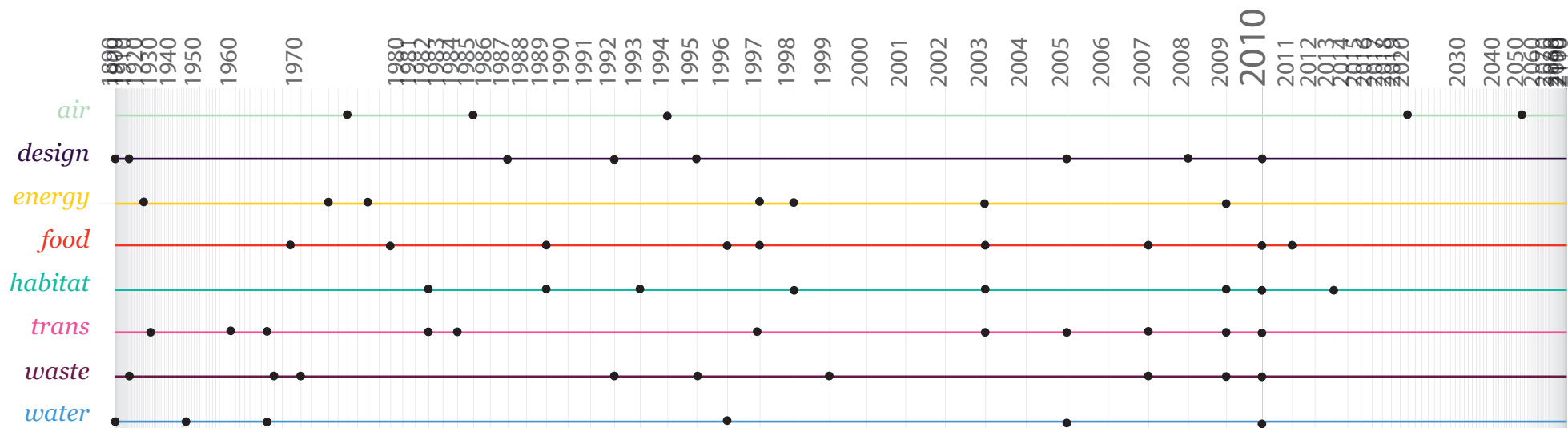
THEMATIC THREADS

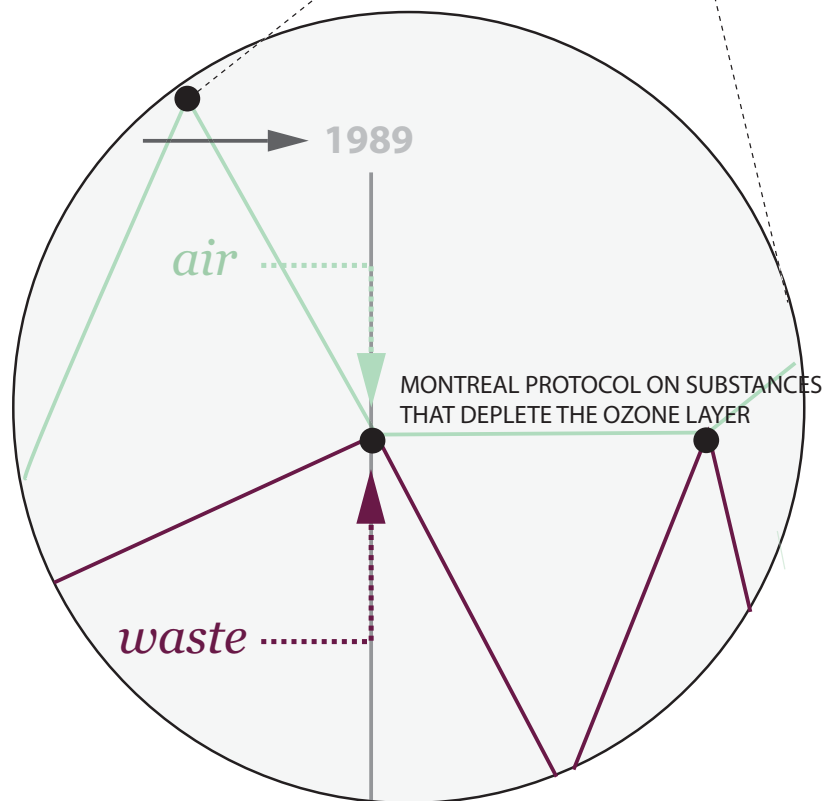
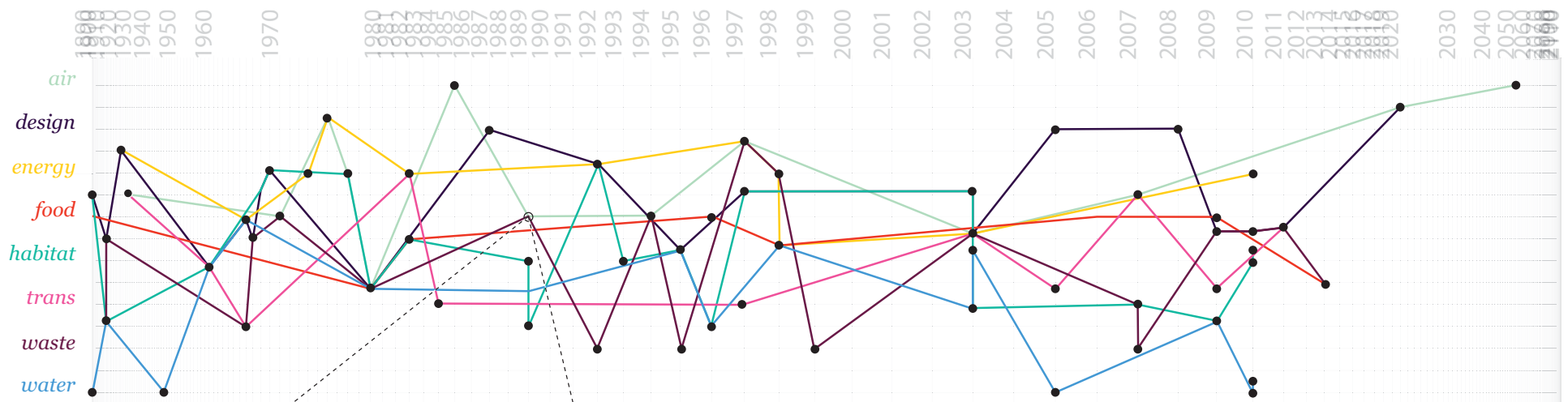
We began building a timeline by drawing a series of thematic threads under which significant historical events relating to sustainability could be mapped. Our choice of categories is a response to our perception that much recent research and design has focused on the physical and atmospheric qualities of built environments particularly on energy efficiency. In our view, such an emphasis on energy cycles is important but does not necessarily address equally important cycles such as food consumption, water consumption or the recycling of urban waste. The Integral Urban House by the Farallones Institute (1979)¹ is an early example of an approach to sustainability that looks beyond energy consumption and integrates food raising, waste recycling, water management and solar and wind energy storage into an alternative urban housing model. We appreciated the Farallones Institute's approach to sustainability as one that is perhaps more balanced than current approaches that are focused on efficiency and energy performance. Thus, in addition to ENERGY, we have included AIR, DESIGN, FOOD, HABITAT, TRANSPORTATION, WASTE, and WATER as the major thematic threads of our timeline in an attempt to broaden the definition of sustainability.



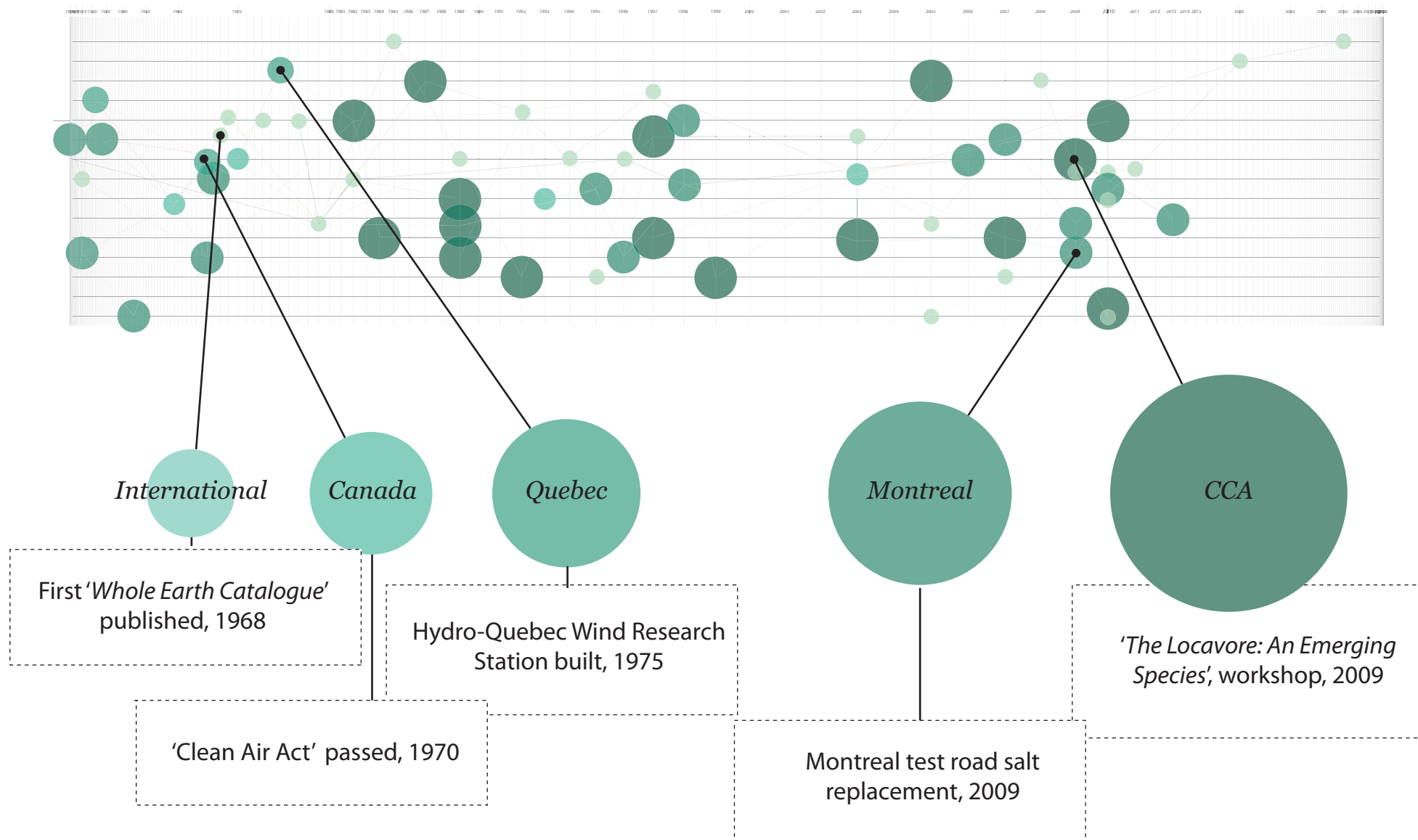
Cover of The Integral Urban House.
Farallones Institute (San Francisco: Sierra
Club Books, 1979). Canadian Centre for
Architecture Collection, Montreal.

¹ Farallones Institute, *The Integral Urban House: Self-Reliant Living in the City* (San Francisco: Sierra Club Books, 1979).



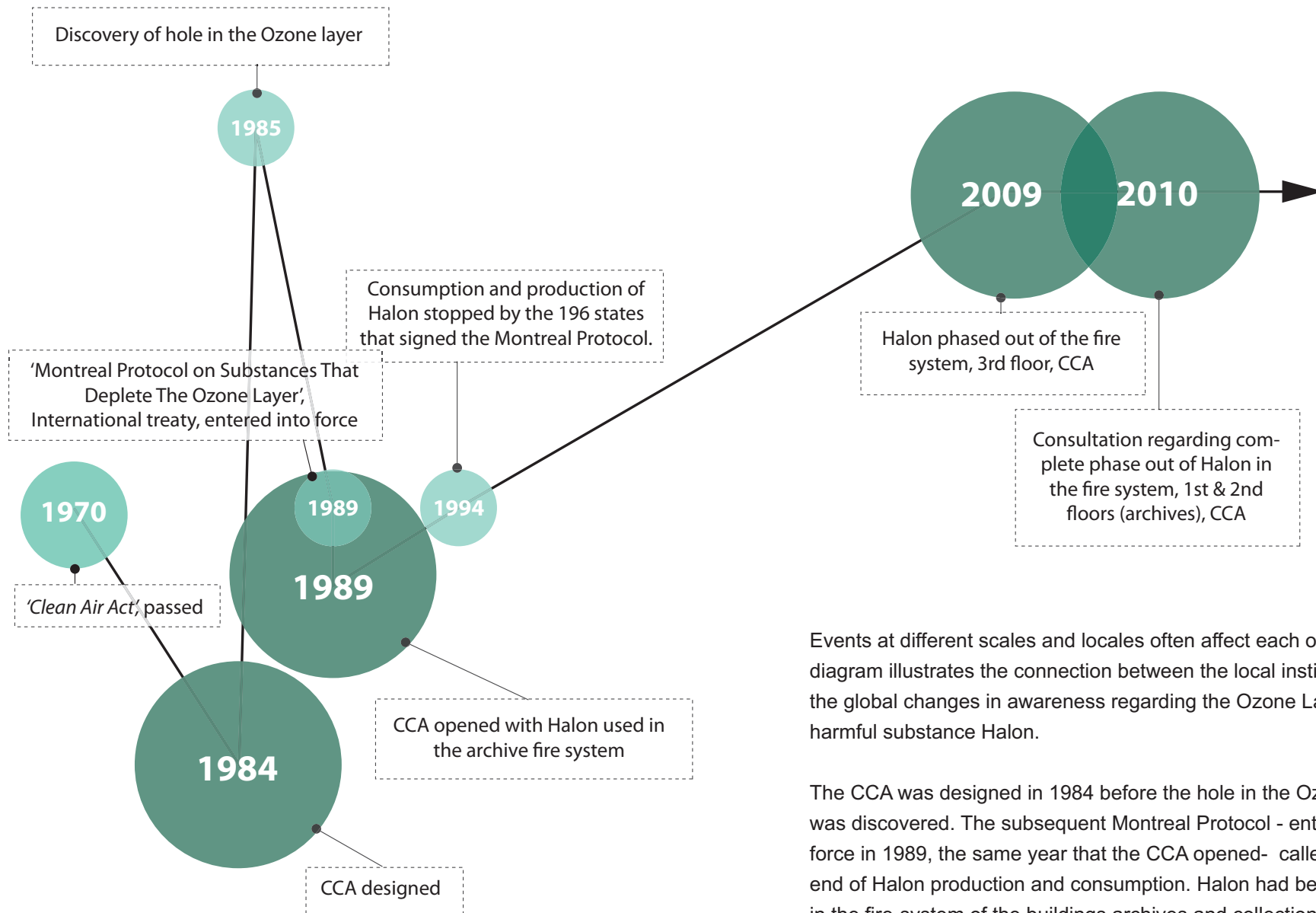


Events shift along the timeline according to the categories in which they fall. For example, the Montreal Protocol on Substances that Deplete the Ozone Layer - an international treaty which is designed to safeguard the ozone layer - is placed between both waste and air.



Events along the timeline board are located on five different scales, ranging from the local institution to the international scale.

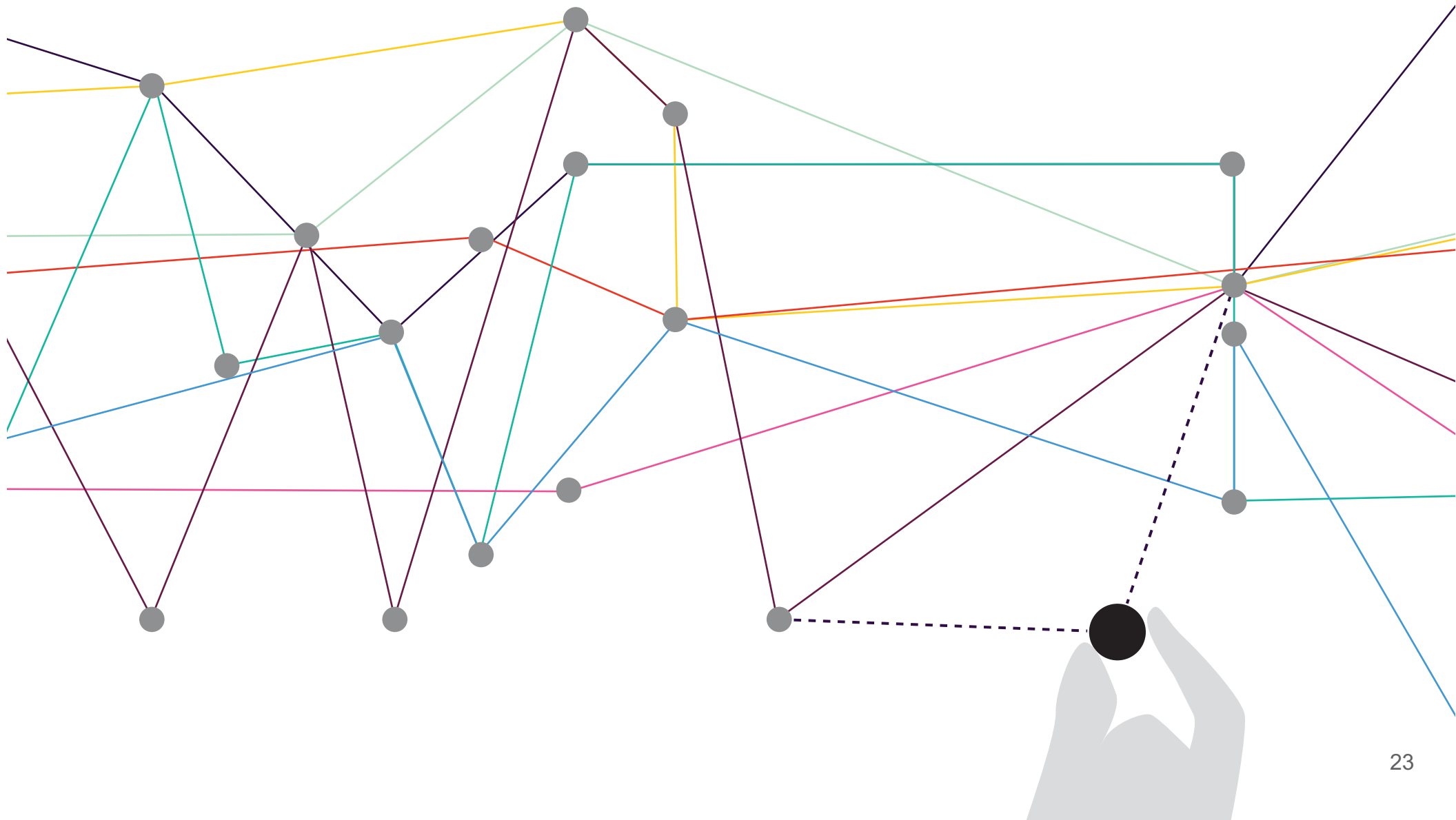
When selecting events for the timeline, we chose not to eliminate events based on locale, as we do not live in a bubble. Often international events have a global impact and vice versa.



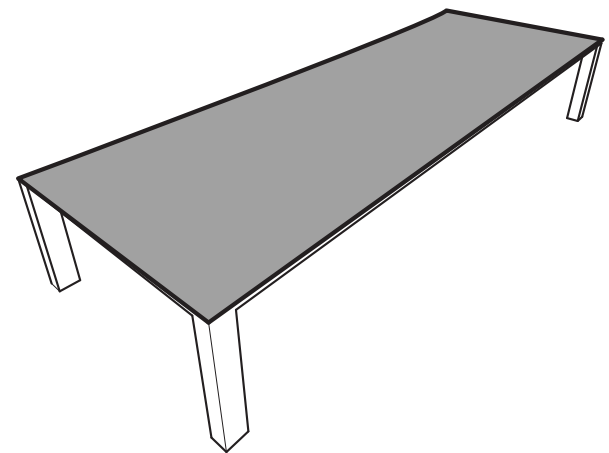
Events at different scales and locales often affect each other. This diagram illustrates the connection between the local institution and the global changes in awareness regarding the Ozone Layer and the harmful substance Halon.

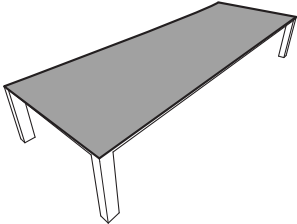
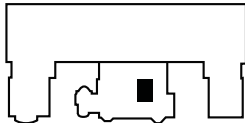
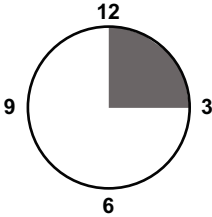



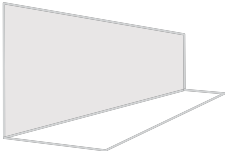
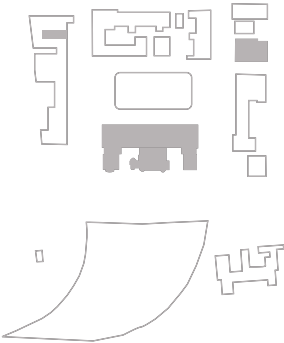
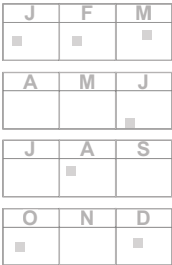
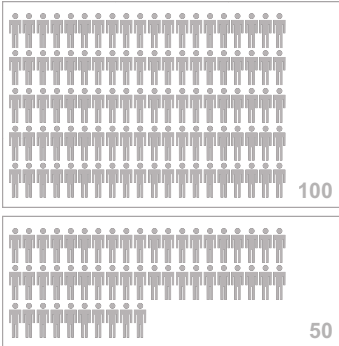
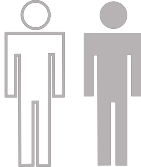

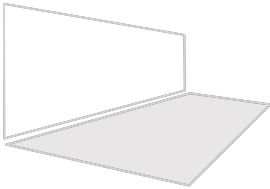


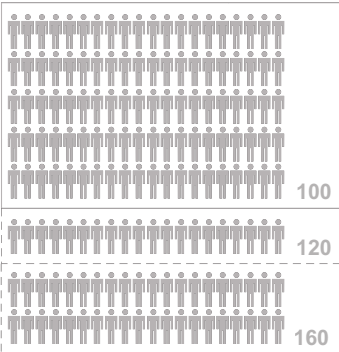

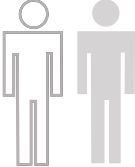
The CCA was designed in 1984 before the hole in the Ozone Layer was discovered. The subsequent Montreal Protocol - entered into force in 1989, the same year that the CCA opened- called for the end of Halon production and consumption. Halon had been included in the fire-system of the buildings archives and collections. Halon is now being phased out from the CCA to comply with these regulations.

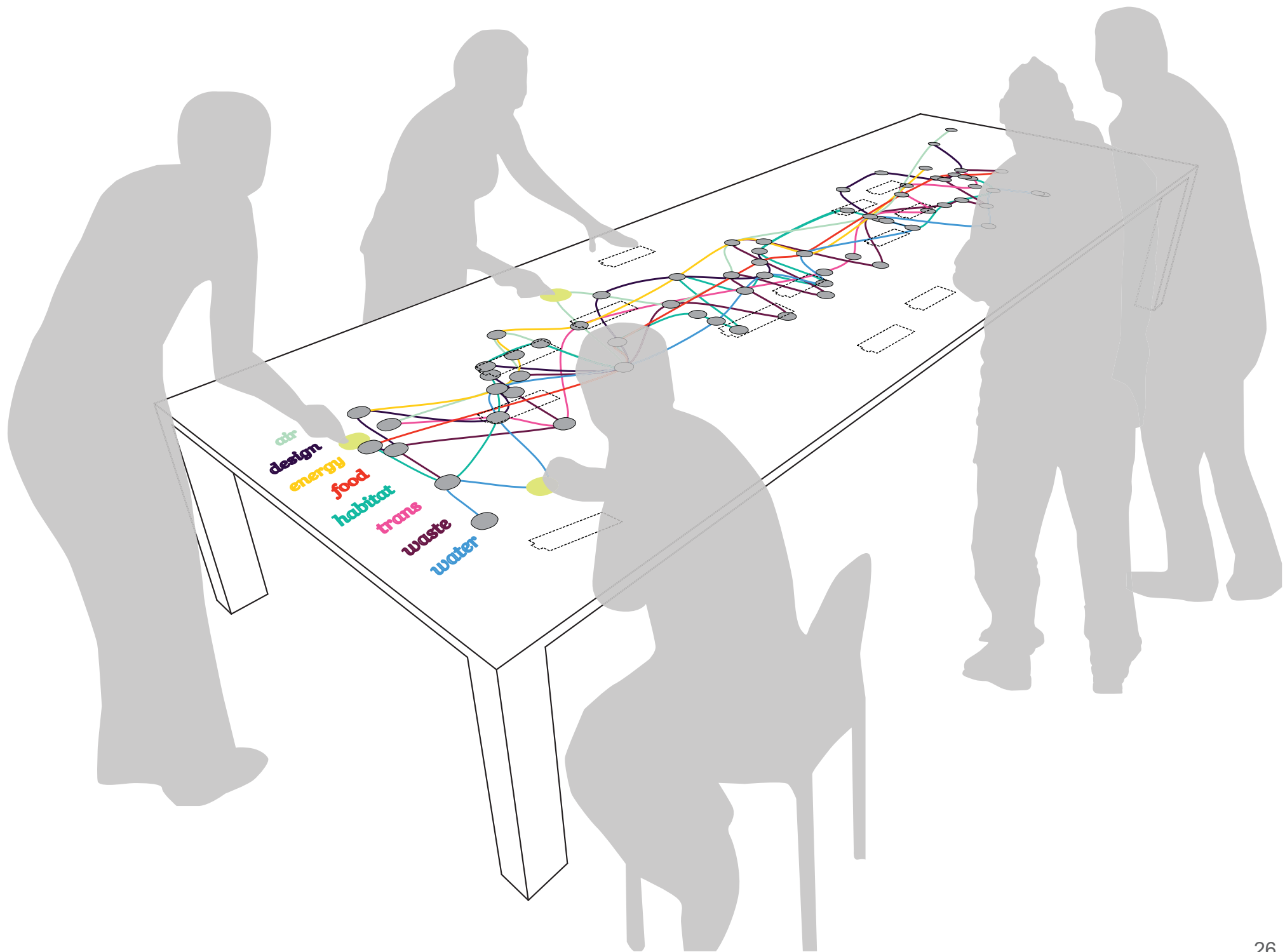
The board game is dynamic, shifting when new events are added to the timeline. The thematic threads are altered as players add events/activities to the game.



SMALL SCALE - BOARD GAME



| | Game Board Location | Activity Boundaries | Time Scale of Play | Number of Players | Player Profile | Facilitator |
|--------|---|---|--|---|---|---|
| SMALL | table top | room | 1 - 3 hours | 3 - 16 people | educational program participants | educational program staff |
| |  |  |  |  |  |  |
| MEDIUM | 3rd floor notice board | CCA building & grounds, homes & neighbourhoods | 1 year + 1 hour orientation | +/- 150 people | staff & scholars | staff & scholars self-organize rotating points keeper |
| |  |  |  |  |  |  |
| LARGE | CCA: Baile Park | City of Montreal | 10 years + 1 game day / season | unlimited & ongoing | "the public" | educational programs staff & invited facilitators |
| |  |  |  |  |  |  |



RULES OF PLAY

GREEN [CCA] GAME

Goal

The goal of the game is to be the most Sustainable Steward of the environment.

How to Win

Players gain points and tally them on their individual Sustainable Steward Scorecards. Players aim to have points in ALL the sustainable categories reach the Level of Sustainability indicated on the Scorecard. The first player to balance their scorecard and return back to the present year, wins!

Game Specifications

Player age: 8+ years

of Players: minimum 3, maximum 8. If more than 8 people want to play, the group can be divided into teams of 2 players each.

Facilitator: minimum 1, CCA staff. Additional facilitators are helpful if there are many people playing or the age group is young.

Time to Play: 1 - 3 hours

Setting Up / Getting Started

1. Each player selects a game piece to represent themselves on the gameboard.
2. All players start on the current year. Individuals place their game piece along the timeline of their choice. It is ok if more than one player starts on the same timeline.
3. Each player spins the Spinner. The player who spins the highest number goes first. The person who spins the second highest number takes their turn second, and so on.

Playing the Game

The first move:

For each Player's first move, they spin the Spinner twice. The first spin determines whether one travels forward in time (even number) or backwards in time (odd number). The second spin determines the number of spots the game piece moves along the given timeline.

Moving across the game board:

Use the Spinner to determine how many spots to advance your game piece along your current timeline. Once you are headed in a certain direction (i.e., forward in time or backwards in time) you must continue in that direction until the game indicates otherwise.

If you arrive to a spot where timelines cross, you may continue on your current timeline or switch over to the intersecting timeline(s) and continue advancing.

If you arrive at the end of a timeline, jump to the opposite end of the same timeline and continue moving in the same direction (forward or backwards in time).

The Game Board - Square Types & Point Values:

Event: When a Player lands on this spot, they rest there until their next turn. Value = 0 points

Event with Activity Tab: Pull out the tab and follow the directions explained within. The tabs may ask the Player to correctly answer knowledge-based questions or participate in group activities. If you successfully complete the activity, you will be awarded points according to the scale/difficulty of the task. Value = 1, 3, or 5 points

Once the activity has been done, remove the tab from the game board so it is not repeated. Place this tab in the designated location [to the left of the board].

Spinner - Operations & Point Values:

Add Event: The Player adds a relevant event to either the past or future, explaining its significance to the other Players. Write the event title on a sticky note and place it on the corresponding date along the timeline game board. Value = 1 point

Create Activity: If the Spinner points to Create Activity, the Player invents an activity for an existing event on the gameboard. Record the activity on a blank activity tab and place it on the designated location on the game board. Value = 5 points

Time Jump: When the Spinner points to this spot, take a Time Jump card from the pile. Following the directions on the card, move your game piece to a new location on the game board. If you land on an Event with an Activity Tab, do that activity on your next turn. After the card has been used, place it face-up in the indicated location. Value = 0 points

Trade Off: When you spin Trade Off, take a card from the top of the pile. The card will ask you to interact with other Players by exchanging, giving away or taking points. Value: Variable (see card instructions)

Scorecard - Recording Points

Each Activity Tab will indicate the number and type of points gained by successfully completing the activity. Record these points in the corresponding categories on the Sustainable Steward Scorecard.

Afterward - The Evolving Exhibition

The exhibition is integral to this board game because it allows the game to live on after the 3 hours it has been played. It operates as a feedback mechanism to see how players, as individuals and as a group, are performing over time. The Evolving Exhibition has a Display aspect, which features the physical artifacts, and an Archive aspect which is digital record. Having both of these in the same location helps the visitor understand that this board game, although played by different people each time, is an ongoing process of stewardship and catalyst for actions.

Display

Where: CCA Museum Entrance, east wall. Admission to this area is always free.

When: Immediately after the game is played it is mounted by the Players. The display lasts until the next round of the game takes place at which point the more recent artifacts are exhibited in place of the old.

What: Exhibited objects include the game board, scorecards and any other images produced by the Players.

Archive

Where: CCA Museum Entrance, display screen behind ticket counter.

When: When an exhibition is taken down, it is digitally archived and displayed on the screen. Over time, this digital display will build up as many rounds of the game are played.

What: Digital copies of previous game boards, scorecards and any other images produced by the Players.

see next page for Facilitator Instructions

GOAL OF THE GAME:

The goal of the game is to be the most sustainable steward.

HOW TO WIN:

Each player keeps track of their success by recording the points they gain on their Sustainable Steward Score Card. The first person to fill all of the point categories up to the Sustainable Goal wins the game.

PLAYER PROFILE

draw a self portrait
or
paste a photo of yourself
here

player name

player's community

After the Game:

Played the game on _____ at _____
date location

I was most successful on the _____ timeline.
design / food / water / etc

My favorite activity was: _____
year event activity

The best moment of the game was _____

SUSTAINABLE STEWARD SCORE CARD

| | | | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
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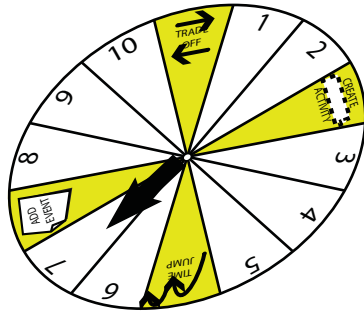
SUSTAINABLE GOAL

| | | | | | | | |
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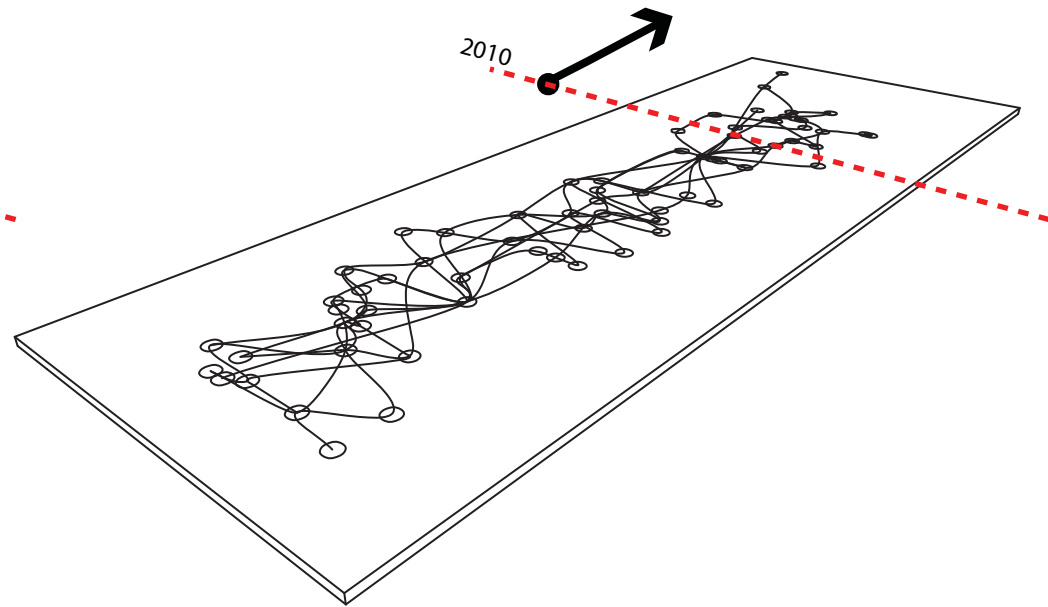
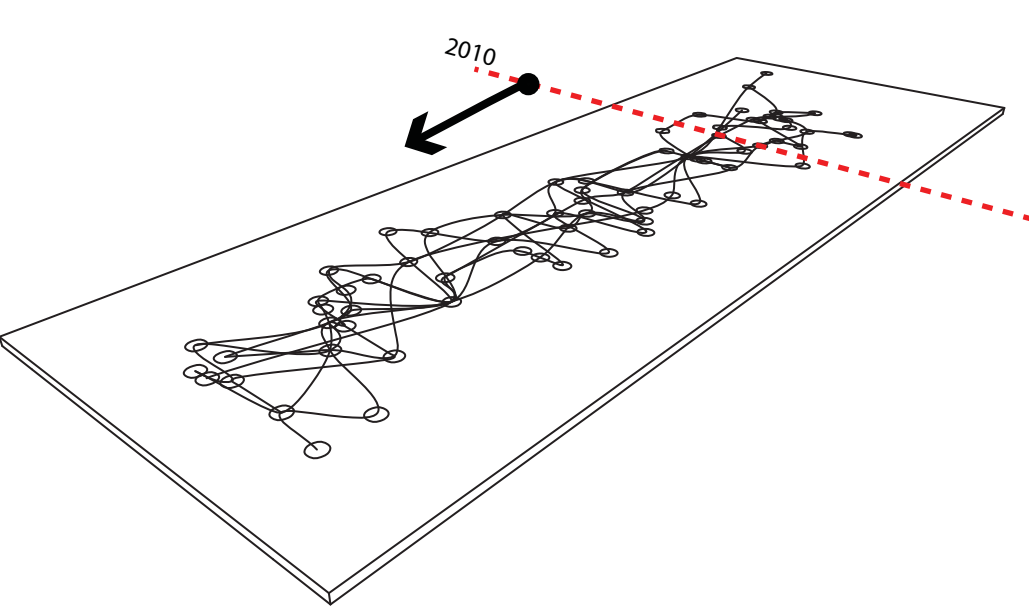
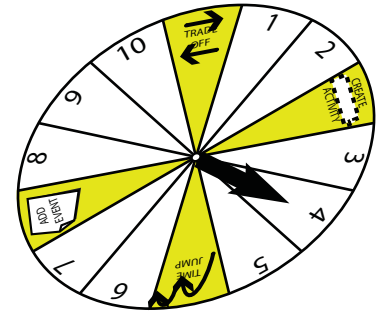
Air Design Energy Food Habitat Trans-
portation Waste Water

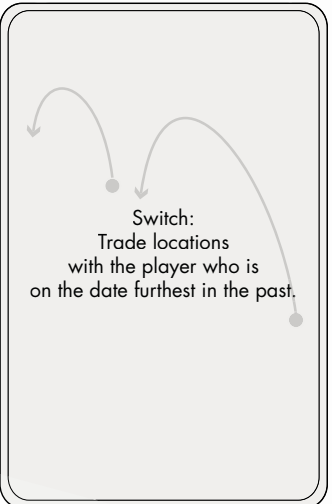
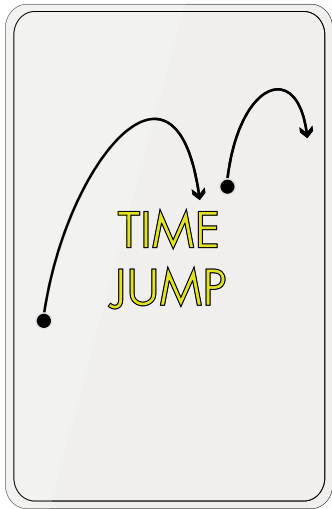
THE FIRST MOVE

SPIN ODD NUMBER:
PLAYERS ADVANCE
BACKWARD IN TIME
FOR THE REST OF GAME



SPIN EVEN NUMBER:
PLAYERS ADVANCE
FORWARD IN TIME
FOR THE REST OF GAME





Time Jump category

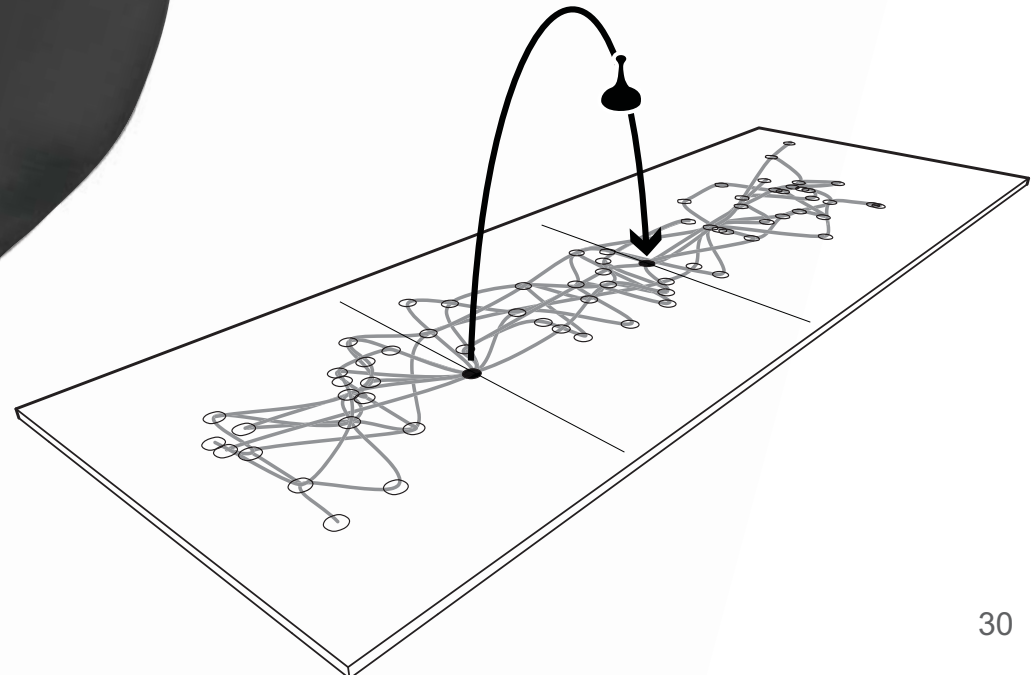
movement type

direction

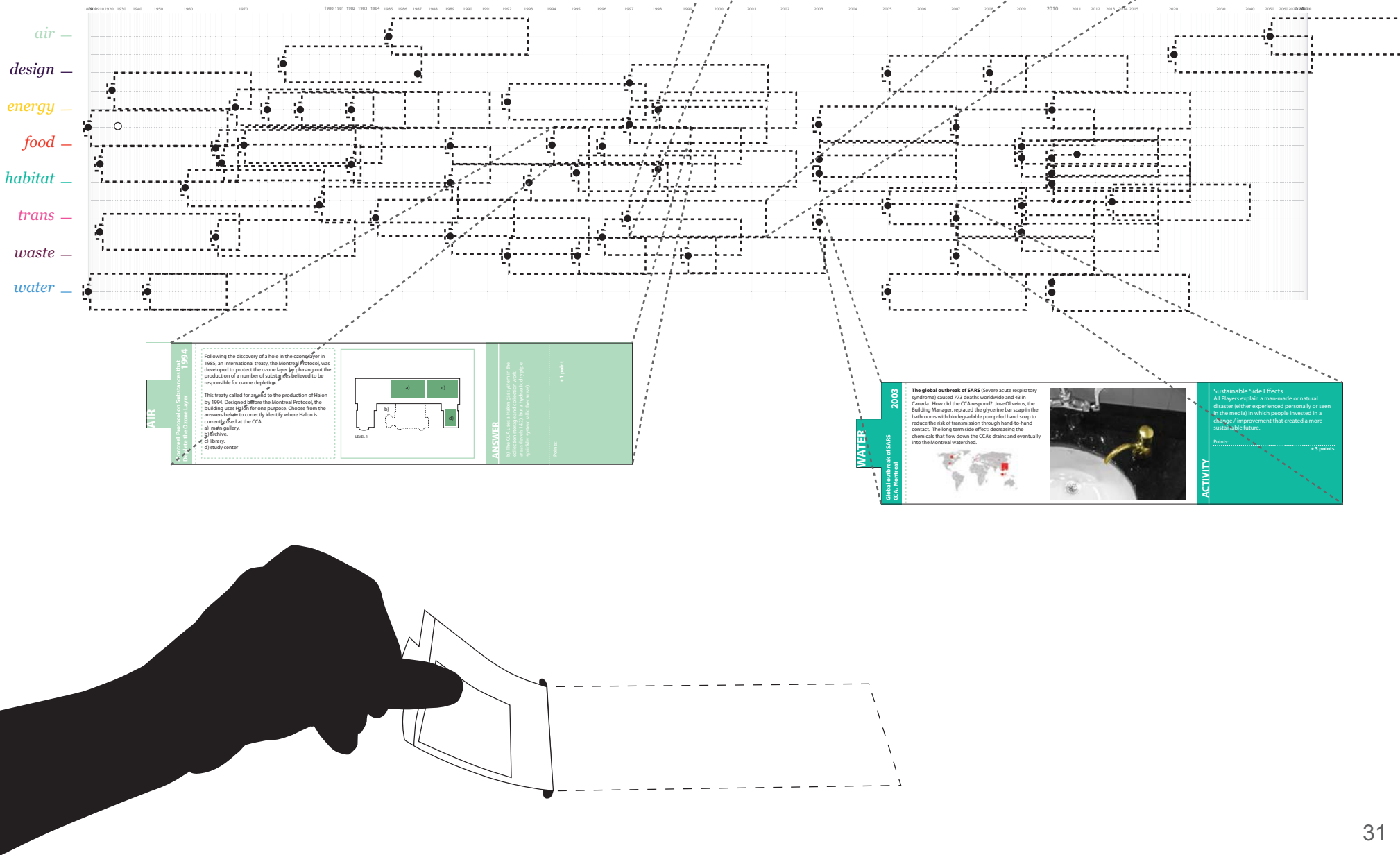
distance



player decides to jump
forward in time
20 years



Activities are embedded within events on the timeline.
As players move along the timeline board and land on events, they must pull out the tab containing an activity.

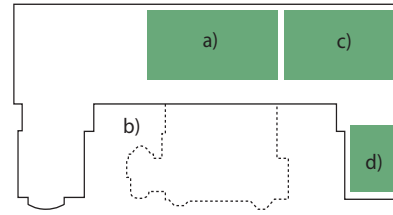


Following the discovery of a hole in the ozone layer in 1985, an international treaty, the Montreal Protocol, was developed to protect the ozone layer by phasing out the production of a number of substances believed to be responsible for ozone depletion.

This treaty called for an end to the production of Halon by 1994. Designed before the Montreal Protocol, the building uses Halon for one purpose. Choose from the answers below to correctly identify where Halon is currently used at the CCA.

- a) main gallery.
- b) archive.
- c) library.
- d) study center

LEVEL 1



b) The CCA uses a Halon gas system in the collection storage and collection work areas (levels 1&2), but a hydraulic dry pipe sprinkler system (all other areas).

Points:

+ 1 point

CONTEXTUAL INFORMATION

SINGLE PLAYER ACTIVITY:

- TRIVIA
- MULTIPLE CHOICE
- MATCHING
- TRUE/FALSE

ACTIVITY TESTS THE PLAYER'S KNOWLEDGE

POINTS:

AWARDED TO INDIVIDUAL PLAYER

These activities happen at three different scales.

Small activity tab is a single player challenge.

The time it takes to complete the task is approximately one minute.

Small activities are either a trivia, multiple choice, matching or true/false questions.

Tabs offer contextual information, a challenge that tests the knowledge of the player, and the points awarded to the player for the correct answer.

This tab describes the Montreal Protocol, and asks the player where Halon is used in the CCA.

Small  1min

2003

Global outbreak of SARS
CCA, Montreal

The global outbreak of SARS (Severe acute respiratory syndrome) caused 773 deaths worldwide and 43 in Canada. How did the CCA respond? Jose Oliveiros, the Building Manager, replaced the glycerine bar soap in the bathrooms with biodegradable pump-fed hand soap to reduce the risk of transmission through hand-to-hand contact. The long term side effect: decreasing the chemicals that flow down the CCA's drains and eventually into the Montreal watershed.



ACTIVITY

Sustainable Side Effects

All Players explain a man-made or natural disaster (either experienced personally or seen in the media) in which people invested in a change / improvement that created a more sustainable future.

Points:

+ 3 points

THE ACTIVITY ASKS
THE PLAYER TO CONNECT
GLOBAL EVENTS
TO LOCAL DECISIONS

CONTEXTUAL INFORMATION

POINTS

DESCRIPTION OF ACTIVITY

SINGLE OR MULTI-PLAYER ACTIVITY:

- SURVEY
- ANALYSE
- DESIGN

Medium scaled tabs are either single or multiplayer activities. They take around 2 mins to complete and are either a survey, analysis or anecdote challenge.

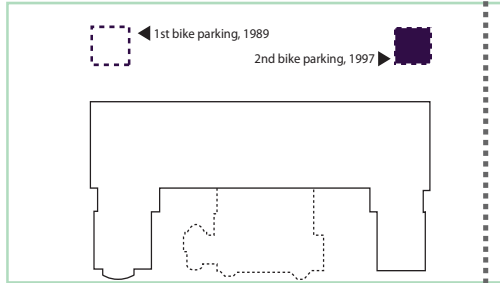
This tab describes how the CCA responded to the SARS epidemic by replacing the bar soap in the bathrooms with the biodegradable pump fed hand soap, thereby decreasing the chemicals that flow down the CCA's drains.

In response, the player must first describe the man-made or natural disaster that they have knowledge of, as well as how they or others used the event to introduce positive changes.

Medium  2min

Second bicycle parking introduced at the CCA 1997

In 1997 the CCA built a second bicycle parking area at the East end of the building as a response to increasing demand adding 18 bicycles spots for a total of 36. During its planning the CCA resisted including on-site parking but ultimately had to include 16 parking spots.



ACTIVITY

Do bicycles outnumber cars at the CCA?
The player must visit the bicycle and car parking lots and compare the number of bicycles number of seats inside each car.

Points:

If the number of seats in cars is greater than the number of bicycles all players lose

- 1 point

If the number of bicycles is greater than the number of seats in cars all players gain

+ 1 point

If there are more bicycles than car seats and the player arrived by bicycle the player gains

+ 5 points

CONTEXTUAL INFORMATION

ACTIVITY REQUIRES PLAYERS TO
PHYSICALLY EXPLORE AN
ENVIRONMENTAL ASPECT OF
THE CCA BUILDING

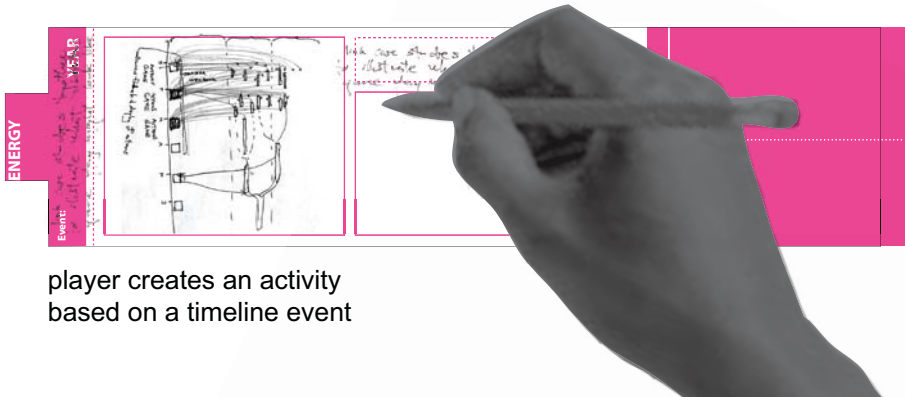
ACTIVITY TYPES:
DESIGN
ILLUSTRATE
EXPLORE

DESCRIPTION OF ACTIVITY

POINTS

Large  5min

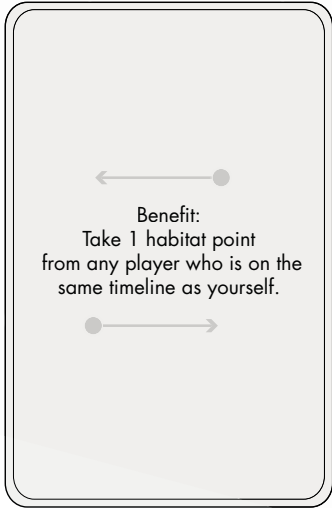
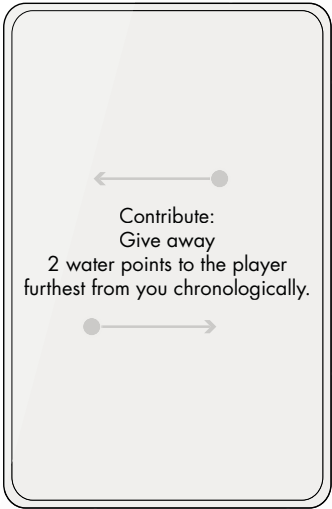
Large scaled tabs are multiplayer activities designed to take around 5 mins. These activities ask the player to respond by either designing, illustrating, or exploring. This tab describes how in 1997 the CCA introduced a second bike parking lot to respond to increased demand. This tab is an explore activity, asking the player if bikes outnumber cars at the CCA. The player must go out to the parking area and compare the number of bikes to seats in cars.



In a 2006 TED talk entitled “Collaboration vs. Institutions”¹ Clay Shirky, a scholar on the social and economic effects of internet technology at NYU, lauds collaborative technologies such as flickr for their capacity to allow people to contribute content openly and freely. In contrast to a traditional institutional environment where groups of specialists produce the content, a collaborative or user-generated environment provides a framework for the coordination of open contributions.

In the context of a Green CCA project we wondered whether an issue like Sustainable Architecture, for which there is ample interest and enthusiasm, should be engaged using an open framework for collaboration. Taking 'CCA Recommends' as an in-house precedent, our own game could play a role in the coordinating and gathering of ideas on sustainability inside and outside the CCA.

35

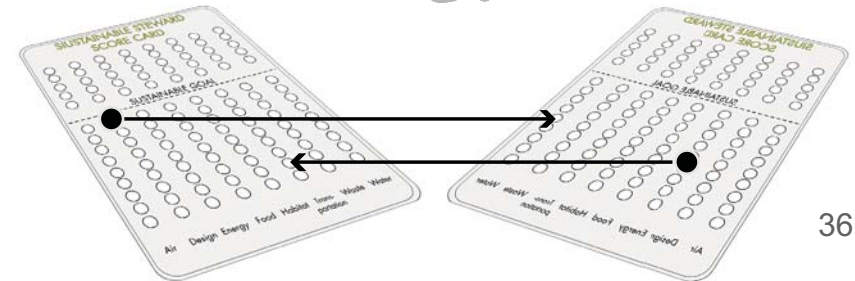


Trade Off category

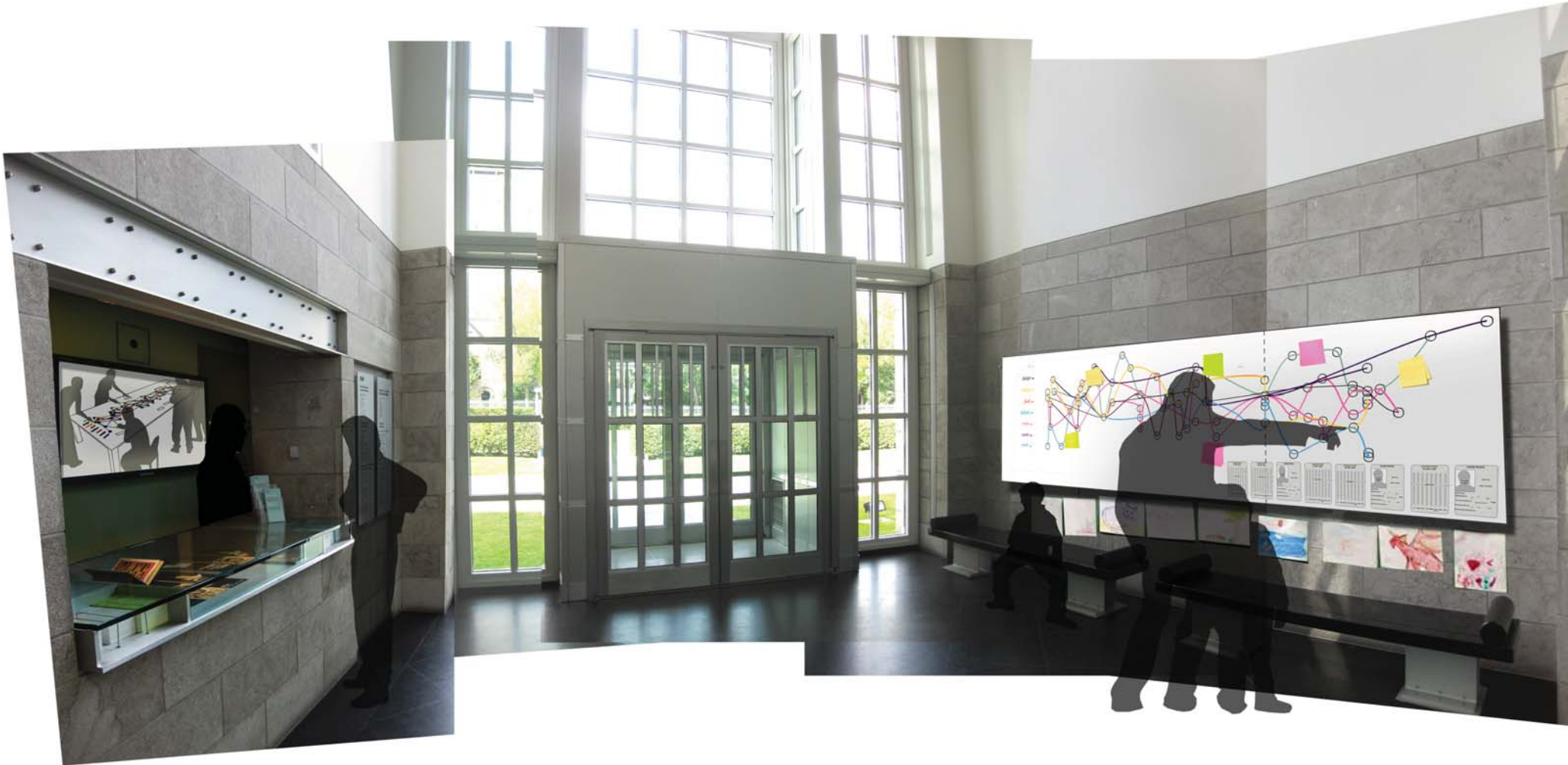
trade type

point category

who is involved



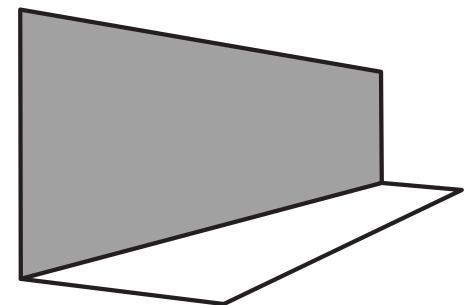
EVOLVING EXHIBITION

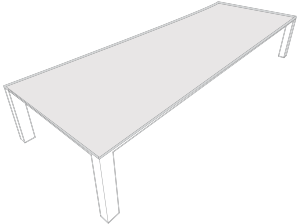

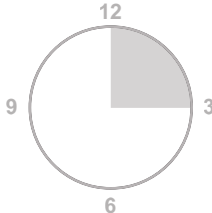



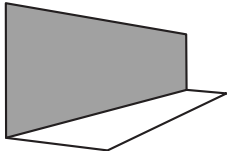
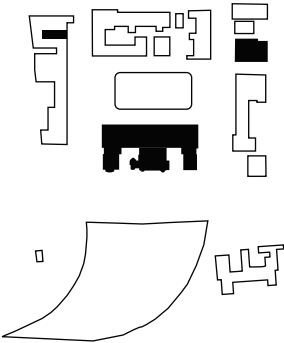
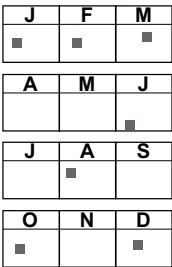
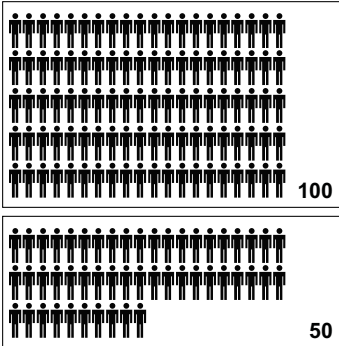
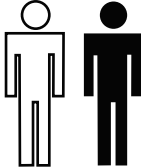

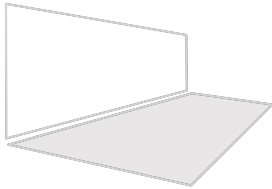


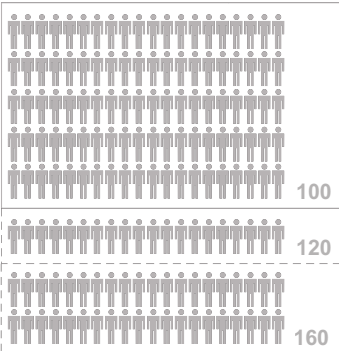




The Evolving Exhibition is integral to this board game because it allows the game to live on after the 3 hours it has been played. Exhibited in the gallery lobby, it is in a location that is accessible for free and taps into the exhibition program already at the CCA. It operates as a feedback mechanism to see how players are performing over time.

Previously played games are digitally archived and continually displayed on the screen behind the ticket counter. Having the physical artifacts and the digital projection in the same space helps the visitor understand that this board game, although played by different people each time, is an ongoing process of stewardship and catalyst for actions.

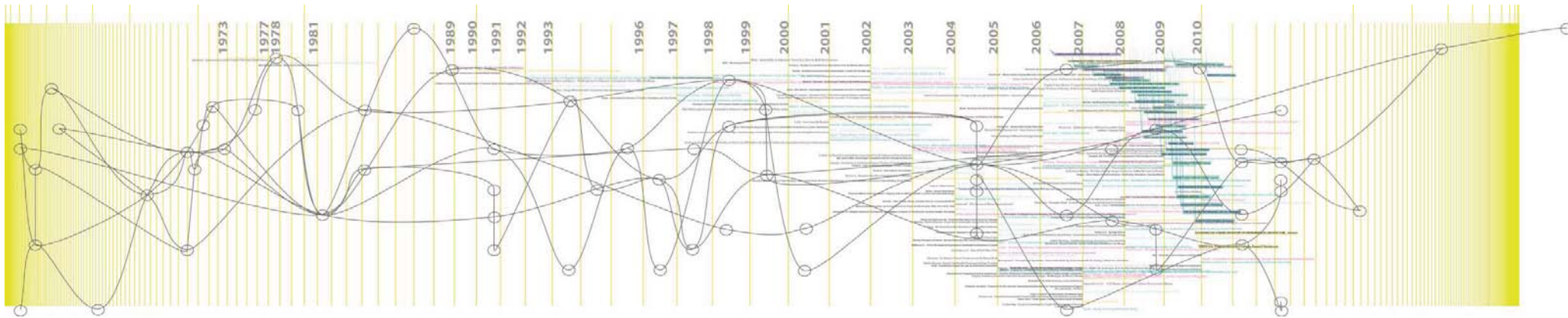
MEDIUM SCALE - BUILDING GAME



| | Game Board Location | Activity Boundaries | Time Scale of Play | Number of Players | Player Profile | Facilitator |
|--------|---|---|--|---|---|---|
| SMALL | table top | room | 1 - 3 hours | 3 - 16 people | educational program participants | educational program staff |
| |  |  |  |  |  |  |
| MEDIUM | 3rd floor notice board | CCA building & grounds, homes & neighbourhoods | 1 year + 1 hour orientation | +/- 150 people | staff & scholars | staff & scholars self-organize rotating points keeper |
| |  |  |  |  |  |  |
| LARGE | CCA: Baile Park | City of Montreal | 10 years + 1 game day / season | unlimited & ongoing | "the public" | educational programs staff & invited facilitators |
| |  |  |  |  |  |  |



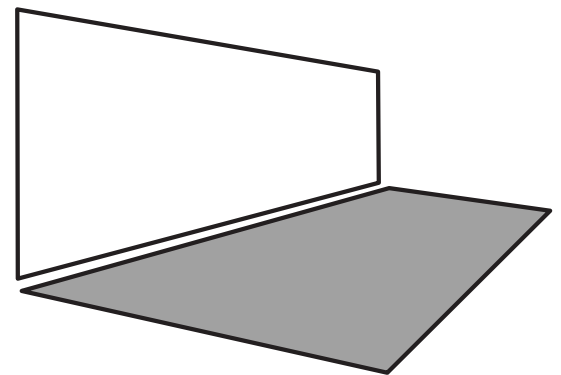
GREEN CCA CONTINUOUS GAME

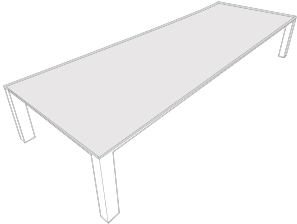

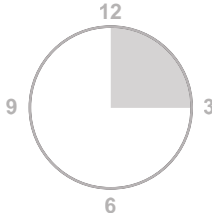



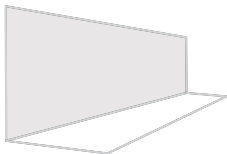
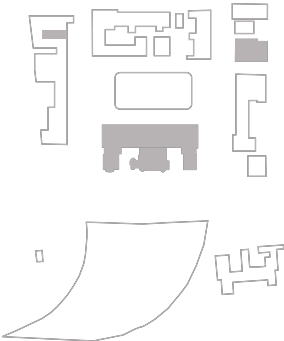
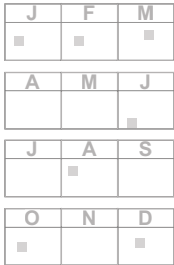
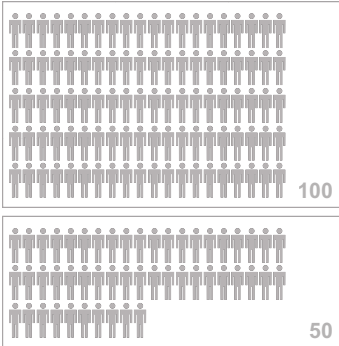
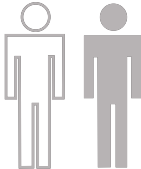

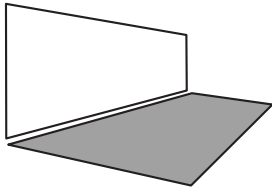

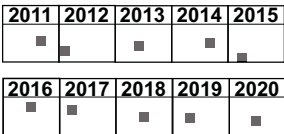
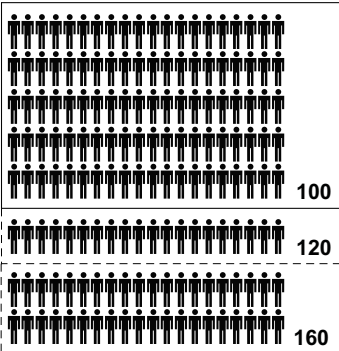

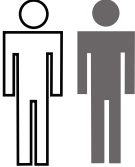


This second game is a larger scale speculation based on the principles of the Green CCA Board Game. Analogous to the board game, players move across the timeline and complete activities embedded within timeline's events, the difference is the length as this version would be played over a period of 6 to 8 months every year. The intended participants of the game would be the CCA staff and visiting scholars and other types of people involved with the CCA in the long-term. The embedded activities are meant to reframe everyday sustainable activities such as cycling and recycling as games, therefore they could take days weeks or months to complete.

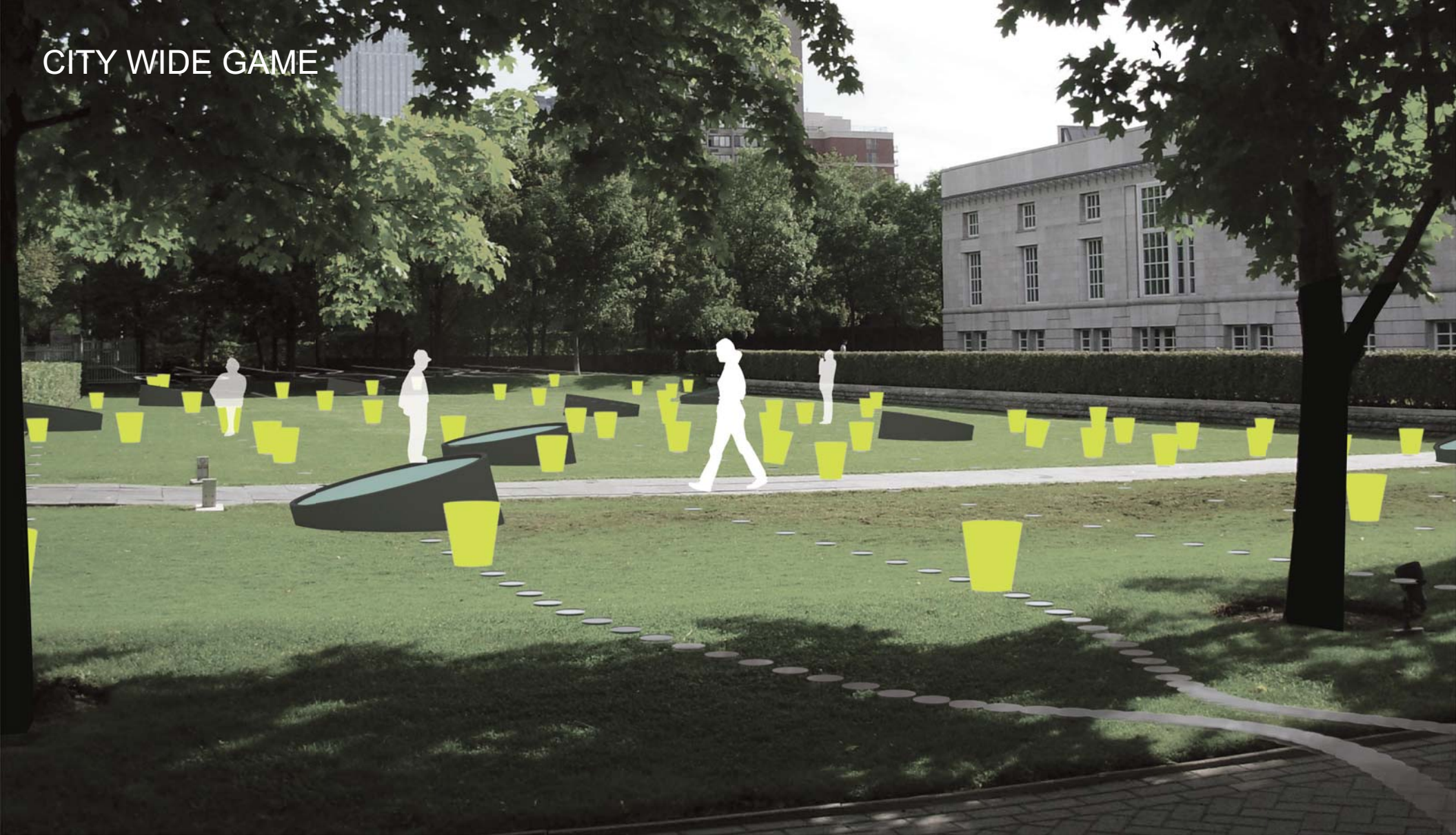
A public timeline interface would be placed at the location of the CCA staff bulletin board on the 3rd floor of the building where it would provide feedback on the progress of the game. A second layer of this interface would show the books and collections material related to sustainability that is housed in the CCA alongside events, lectures, programs and exhibitions on sustainability. This information would allow players to add their own suggestions on books, events and information that could inform the ongoing discourse on sustainability at the CCA.

LARGE SCALE - CITY GAME



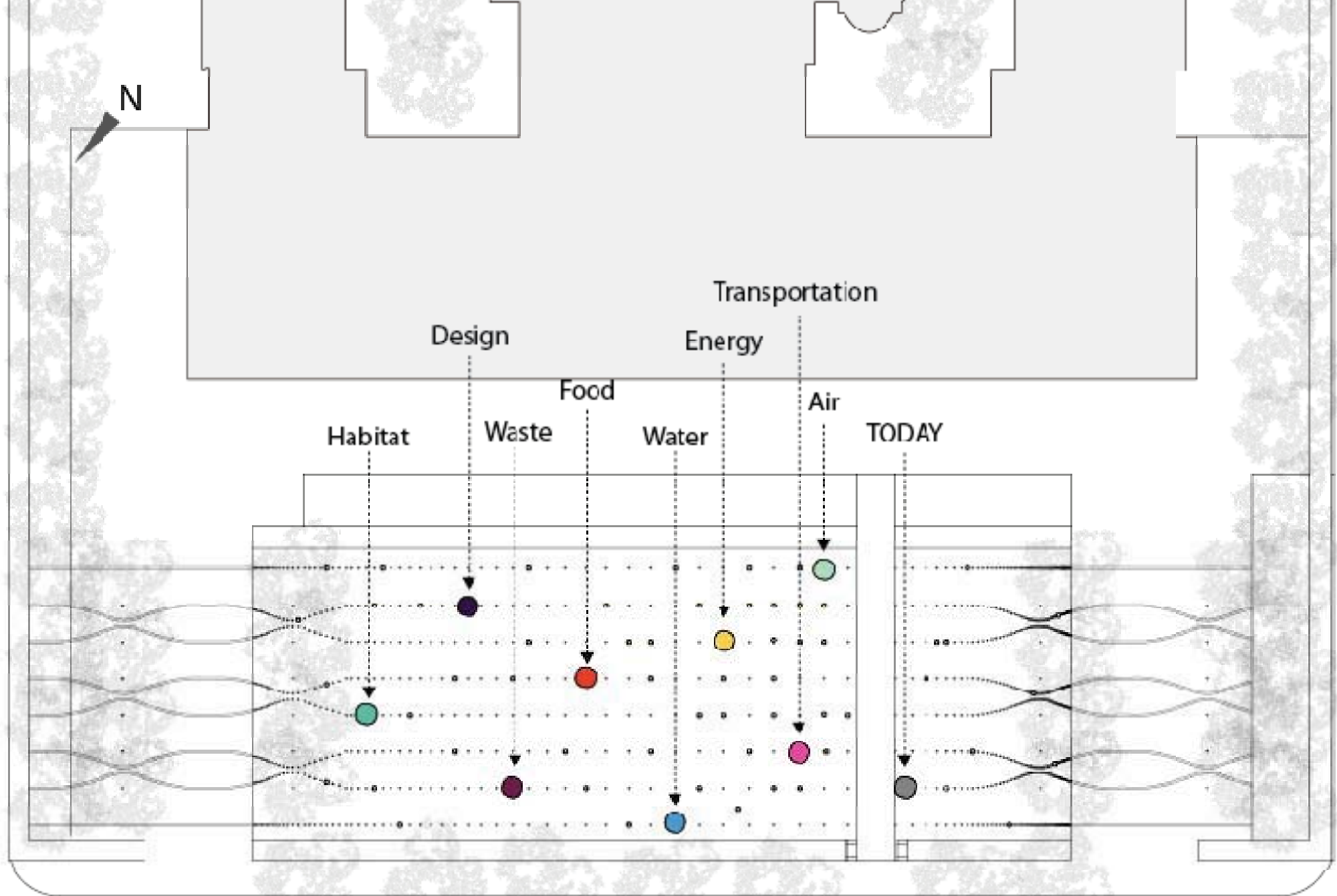
| | Game Board Location | Activity Boundaries | Time Scale of Play | Number of Players | Player Profile | Facilitator |
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| LARGE | CCA: Baile Park | City of Montreal | 10 years + 1 game day / season | unlimited & ongoing | "the public" | educational programs staff & invited facilitators |
| |  |  |  |  |  |  |

CITY WIDE GAME



The central ideas of the game were expanded in this third speculative design for the CCA lawn. Here we envision a semi-permanent installation that would evolve over a longer period of time, assisted by the local population and curated by the CCA.

Along the timeline grid-points on the front lawn, the public is invited to place DIY activity markers that showcase their city-wide sustainable actions. Permanent thread caches are also located along the lawn, curated by the institution.



Permanent thread caches are inserted into the ground, acting as evening time capsule exhibitions of former activities that have happened here at the CCA.

These thread capsules are located along their respective time threads, with locations for DIY activity markers to be added amongst them.

ACTIONS IN THE CITY

Actions: What You Can Do With the City was curated by the CCA and exhibited in Montreal in 2008-09. The exhibition featured architects, students, skateboarders, professors and many others who have engaged in experimental interactions in their cities. Their aim: influence the urban environment using activities such as gardening or playing rather than with conventional urban planning tools.¹

This speculation of the city-scaled game takes *Actions* as inspiration for its activities. The Parc Baile lawn installation would be an interface where players can meet face to face to share knowledge and updates of their continuing long term projects. This is a place where disparate groups that spread across Montreal can record their far-flung progress in an ongoing exhibition, and provoke others to engage in actions too.

¹ "About Actions" <http://cca-actions.org/about>



Growing vegetables for charity
in underutilized urban spaces
image © Leila Marie Farah



Planting tomatoes
on traffic islands
image © Fallen Fruit

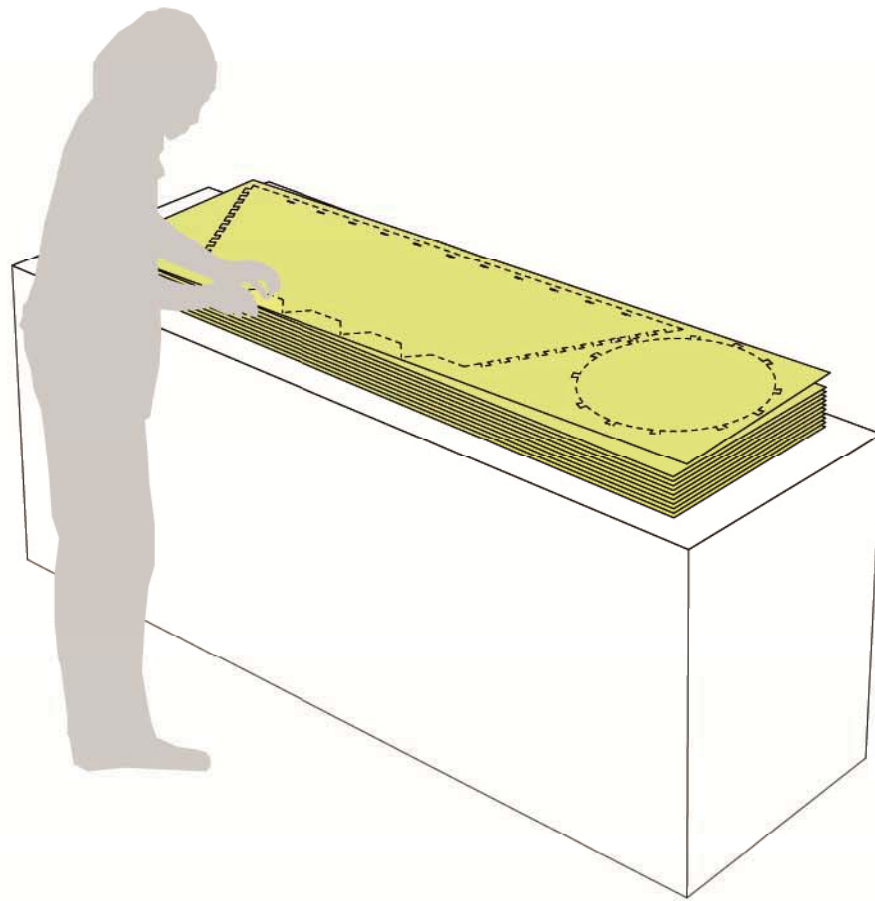


Foraging for food and medicinal
plants in urban & industrial sites

image © Canadian Centre for Architecture, Montreal



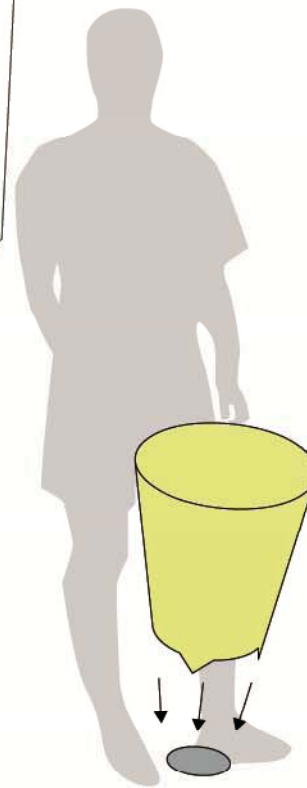
Collecting useful trash
on garbage day
image © Basurama



1 Pick up assembly kit at CCA

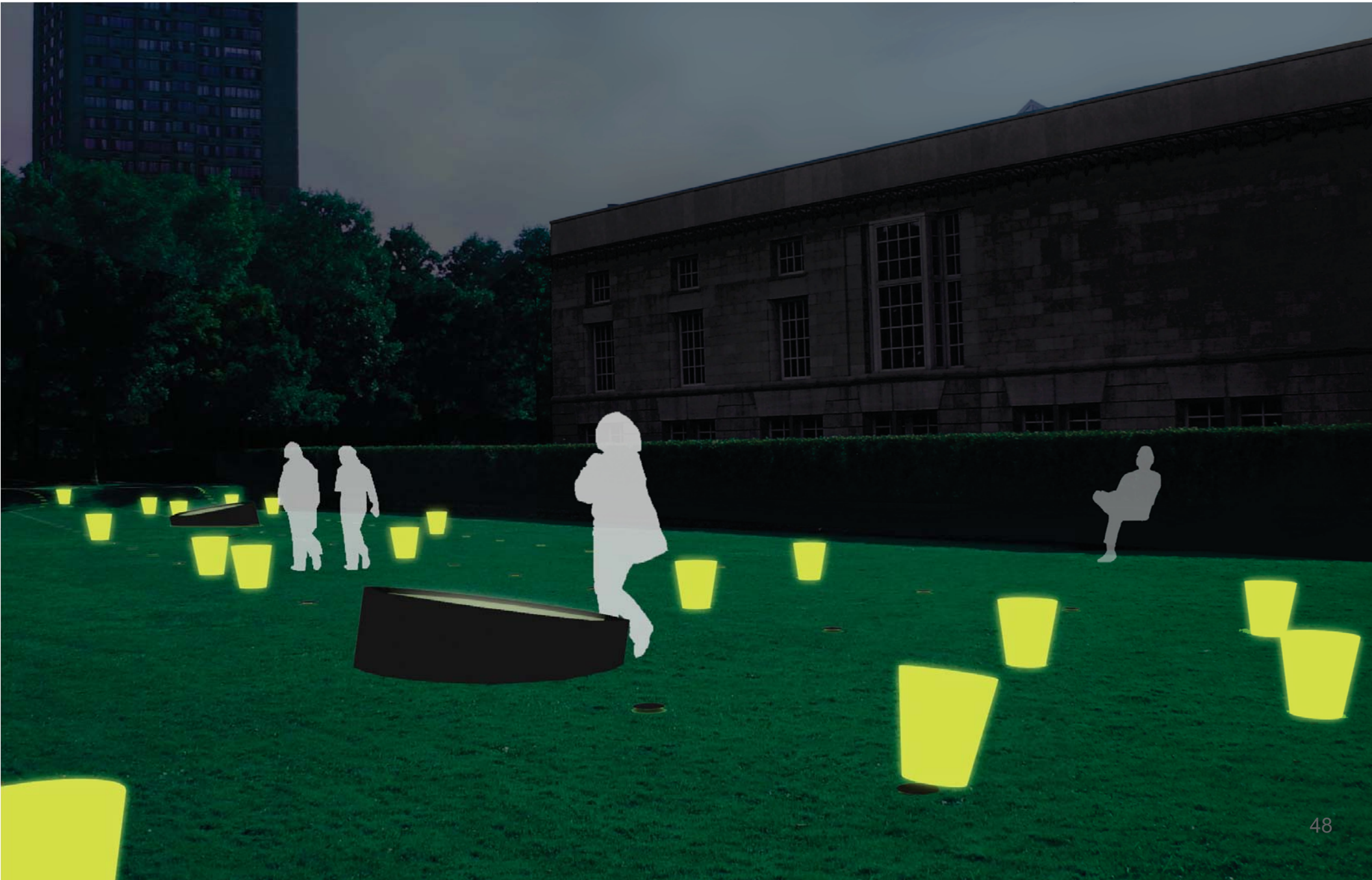


2 Assemble and customize



3 Insert along timeline

In the evening the events markers glow, creating a visual night time exhibition outside of the CCA.



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Phyllis Lambert
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Jean-Maxime Dufresne
Marie-France Morin-Messier
Library and Collection Staff

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Unless otherwise indicated, photographs were taken and diagrams created by Jennifer Davis, Alana Green and Alejandro Lopez Hernandez.

Efforts have been taken to ensure that the information given in this document is accurate. The information has been brought together here from a wide variety of sources and experience. We would be grateful to learn of any errors.

We have made every reasonable effort to contact all copyright holders. Any errors / omissions that have occurred are inadvertent and regretted, and anyone who, for any reason, has not been contacted is invited to contact the CCA so that full acknowledgement maybe made to this site.

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