PRACTICAL ECODESIGN GUIDE FOR THE PERFORMING ARTS

AN INITIATIVE BY FTA éco scéno

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Introduction

This guide has been developed to support performing arts professionals in adopting best practices that promote ecodesign and ecoresponsibility. It contains suggestions on how to tailor your approach and actions to achieve results, motivate your teams, and inspire the broader creative community.

The transition to a more sustainable society requires communities to rethink their ways of living, producing, and consuming in order to reduce their environmental footprint while promoting social justice. In the performing arts, this shift calls for us to adapt our approach across all areas of activity, from design to sourcing—including how we make things, what energy sources we use, and how long we use materials.

When it comes to making this happen, we are all facing the same questions:

How do we adopt ecoresponsible practices while respecting artistic visions, budget realities, and schedule constraints?

How do we become agents of change and positively impact our communities and environment?

What tools and strategies should we prioritize when tackling the complex challenges associated with the ecological transition, given the relative precariousness of our organizations and our chronic lack of time?

There are no simple answers. We have therefore reached out to a number of professionals in the field to propose creative and engaging solutions adapted to various contexts and stages of the creative process.

Given the scale of performing arts activities on the global level, it is fair to wonder whether pursuing individual ecoresponsible initiatives will make a real difference.

It is important to remember, however, that culture and the performing arts stimulate people's imagination, which has a considerable impact. They are a remarkable source of inspiration for both individuals and communities. Art encourages audiences to understand the climate crisis on the emotional and sensory levels, making it a powerful tool for changing people's ways of thinking.

Throughout history, culture has shown its capacity to foster political and institutional revolutions, leading to sweeping changes that shaped the future of our communities. Ecodesign is based on the same principle as other collective transformations: it is an act of solidarity with—and commitment to—the world of tomorrow.

This guide suggests actions you can take right now to reduce your environmental footprint and enhance the social impacts of your productions. As an individual or organization working in theatre, dance, circus arts, or another discipline, you have the power to change the way people think—and a responsibility to do so. Your creativity is a valuable asset for building a more sustainable future.

Who Is the Guide For

This guide is aimed at all workers in the performing arts sector who want to evolve their practices by making them more ecoresponsible. Its content applies to all teams involved in design, making, production, and presentation in the performing arts field. It offers engaging solutions intended to stimulate constructive dialogue between producers and designers.

How to Use the Guide

The guide is divided into two main parts.

The first part outlines steps for becoming an ecoresponsible organization. It also presents recommended initiatives and methods for implementing ecodesign at various stages of a production.

The second part provides reference sheets that summarize actions to be taken for specific issues, organized by profession and theme. Throughout this part, we propose solutions to support your ecodesign initiatives and put them into practice.

Ecoresponsibility vs. Ecodesign

These terms refer to two different but complementary approaches.

Ecoresponsibility means adopting behaviours and implementing actions that have positive environmental and social impacts. It covers all of an organization's activities and lays the groundwork for implementing ecodesign.

Ecodesign involves the integration of environmental conservation into each step of the creative process by the entire production team, starting from the development stage. Its objective is to improve the social and environmental impacts of cultural productions throughout their lifecycle. It encourages creating differently and profoundly rethinking our ways of working while considering the ephemeral nature of performing arts productions.

In other words, ecoresponsibility is the general context that provides the underlying basis for ecodesign, while ecodesign is the application of creative solutions throfughout the artistic process. Many different solutions are possible. They must be adapted to each specific context and production, which require a unique approach. Performing arts professionals have a remarkable ability to adapt, which is one of their greatest strengths when it comes to ecodesign.

Ecodesign requires additional time at various stages of the creative process. To achieve sustainable change, it is preferable to set limits on the actions you want to take so that you can manage your energy over time while allowing yourself to make mistakes. Aim for gradual improvement. It's better to take things one step at a time rather than trying to implement every solution right away on the first project. This type of change demands considerable energy and perseverance, so it's important to take a long-term approach.

At first, it might seem like you are making slow progress, but when you look back on it in five years' time, you'll be surprised at how far you have come.

Art and ecology are two complementary forces that can transform the world.

— Wangari Maathai, ecological activist and 2004 Nobel Peace Prize laureate

Key concepts

Sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs[2]. It is based on a long-term approach which takes into account the inextricable nature of the environmental, social, and economic dimensions of development activities.

In this document, the term “ecological transition” is preferred to “sustainable development.” The validity of the latter has been disputed because it implies that we can continue to develop and support growth in a world with finite resources[3].

Regenerative design is “a design process that engages and focuses on the evolution of the whole of the system of which we are part. Logically, our place—community, watershed and bioregion–is the sphere in which we can participate.”[1]

Ecoanxiety may be defined as the sense of anxiety, concern, or apprehension that someone feels due to the upheaval caused by climate change and the impacts associated with it.

Ecoeffectiveness, a term coined in the book *Cradle to Cradle*[4], is an approach which aims to generate positive impacts rather than focusing on reducing negative impacts (in contrast to ecoefficiency). It proposes creating a virtuous circle of abundance by adopting a creative attitude toward climate change.

Ecoefficiency, officially coined by the World Business Council for Sustainable Development, is “The delivery of competitively priced goods and services that satisfy human needs and bring quality of life, while progressively reducing ecological impacts and resource intensity throughout the life-cycle to a level at least in line with the Earth's estimated carrying capacity”.[5]

The circular economy “retains and recovers as much value as possible from resources by reusing, repairing, refurbishing, remanufacturing, repurposing, or recycling products and materials. It’s about using valuable resources wisely, thinking about waste as a resource instead of a cost, and finding innovative ways to better the environment and the economy.”[6]

The linear economy is a “system where resources are extracted to make products that eventually end up as waste and are thrown away. [...] It is a polluting system that degrades natural systems and is the driver of global challenges including climate change and biodiversity loss.”[7]

Ecoscenography involves creating sets in the awareness that human beings are an integral part of nature and ecosystems, whether natural or human. Each decision therefore has positive or negative consequences for our environment. This approach encourages creative teams to make choices that have positive impacts—whether artistic, political, or socioecological. It inspires new modes of practice and artistic engagement.[8]

Resource sharing means pooling resources, equipment, materials, spaces, and/or services and making them accessible to everyone concerned.

Reuse is making repeated use of materials, textiles, or furnishings. It is a different way of defining used items. It may involve using items from inventory, borrowing them from other companies, renting them, or buying them from thrift stores, on Marketplace, or at flea markets or recycling centres (e.g., costumes, furnishings, construction materials, set elements, flats).

An ecological transition is a fundamental, long-term, multidimensional process that transforms a dominant system by adopting more sustainable modes of production and consumption. This concept is based on new approaches to social connection and more collective forms of economy.

1 Reed, 2007.
2 World Commission on Environment and Development (WCED), 1987.
3 Government of Quebec, Sustainable Development Act, 2006.

4 Braungart and McDonough, 2011.
5 World Business Council for Sustainable Development (WBCSD), 1992..

6 Ellen MacArthur Foundation, 2023.
7 Definition adapted from Beer, 2021.
8 Definition adapted from TIESS, 2022.

PART I
BECOMING AN ECORESPONSIBLE ORGANIZATION

Beginning the transition toward ecoresponsible practices means reviewing your ways of thinking and acting both individually and collectively. The success of this undertaking depends above all on the level of commitment from leaders and their teams.

Changing ingrained habits poses some challenges, but good planning and clear communication of the intention behind the desired changes will make it much easier to overcome them. To achieve this, it's essential that you understand the nature of the process you intend to undertake.

Going Circular

The principle of circularity is central to ecodesign. Under a circular approach, each project is part of a loop in which production elements may have several additional lives after the project is complete. It is therefore essential to consider the recirculation of materials from the very beginning of a project. Choosing to source sustainable materials is a useful first step, but most importantly, circularity means rethinking your approach to design in order to increase the potential for long-term repurposing.

It involves considering how materials will be recirculated or using modular design that meets various needs of the sector from the outset.

In short, it's essential that you think about integrating ecodesign principles in advance. The goal is to maximise the use of materials through acting in an efficient manner while minimizing your environmental impact. Keeping materials in circulation is a win-win situation.

Creating an Environmental Policy

Your environmental policy serves as a reliable benchmark for all actions undertaken by your organization.

It is a written declaration that stipulates the general objectives and principles that govern the organization's ecoresponsibility vision. It also communicates your organization's commitment in this area to your audiences, partners, suppliers, and society as a whole.

→ Examples
National Arts Centre's environmental sustainability policy
FTA's Sustainability Policy

Establishing an Action Plan

A good action plan is a key element in implementing your ecoresponsibility policy. It is a tool that guides the actions of the entire team, from employees and contract workers to board members, over a period of three to five years.

It is a roadmap that sets realistic, measurable goals with a defined timeframe. All members of the extended team should contribute to the action plan's development to ensure that it is acceptable and feasible.

To define the goals in your action plan, there are ecodesign-specific tools – such as the goals in the Theatre Green Book or ecosystem mapping – that provide concrete targets and actions for you to implement.

→ Examples
National Arts Centre's Environmental Sustainability Action Plan
Infinitheatre's Eco Manifesto

Ecodesign strategies

In any ecodesign initiative, planning and carrying out a production will be guided by these four questions.

To answer these questions in the context of the performing arts, ecodesign proposes four main types of initiative. They are all related but may be undertaken separately. Through these initiatives, the aim is to go beyond traditional methods such as recycling.

Ecodesign strategies open up a wide range of possibilities. Since their use is determined by the specific context of each work, they are neither exhaustive nor set in stone.

ECOLOGICAL DESIGN

- Minimalist scenography
- Flexible design

ANTICIPATING THE NEXT LIFE

- Planned repurposing
- Standardizing
- Mechanical assembly

RESPONSIBLE SOURCING

- Reuse
- Healthy, sustainable materials
- Buying local

CRAFTING AND MAKING

- Promoting craftsmanship
- Repairing
- Upcycling
- Optimizing Materials
- Taking care of materials and people

ECOLOGICAL DESIGN

It’s estimated that 80% of a production's environmental impact is influenced by decisions made at the design stage[1]. When ecodesign is considered in advance and integrated into the project’s development, it can produce remarkable results across the entire production cycle.

The following ecodesign strategies will help enhance the positive environmental impact of productions from the first stages of the project onward.

1 Ellen MacArthur Foundation, 2023

1. Minimalist Scenography

Place more emphasis on imagination than on physical things. Simple scenic elements can often create powerful, dazzling, and striking images. Using more materials is not necessarily more impactful. Remember: less is more!

Tout ça – Théâtre de Quat’Sous (2025)

Directed by: Louis-Karl Tremblay
Set design by: Karine Galarneau
© Frédérique Ménard-Aubin

Alone on a small platform, standing in front of an orange curtain under the light from a single spotlight, the performer occupies an almost empty stage.

This stripped-down approach shows that minimalism can be a powerful theatrical tool, placing the emphasis firmly on performance and raw emotion.

5 balles dans la tête – Théâtre DuBunker (2024)

Directed by: François Bernier
Set design by: Pierre-Étienne Locas
© David Ospina

Set designer Pierre-Étienne Locas drew inspiration from found suitcases and crates, which he took as the starting point for his artistic vision. The narrator opens what was closed, which is expressed visually by the movement of the crates, which eventually invade and clutter her space.

These scenic elements become chairs, tables, coffins, walls, and trenches by turns. This work is an example of creativity driven by the recovery of existing resources. It demonstrates the possibilities that arise from being curious and on the lookout for resources that are already available and plentiful.

2. Flexibility in Design

To implement ecodesign, it’s vital to adopt an open-minded attitude and demonstrate adaptability and creativity.

2.1 Creating with What Is Readily Available

From the start of the creative process, allow yourself to be inspired by the materials and items that are present around you.

Various schools of thought currently favour creating from a blank page. But it may be just as creative—if not more so—to first draw inspiration from your surroundings and by what is readily available to you. Be open-minded, curious, and on the lookout for what’s accessible in the inventory or the community.

- Visit warehouses and costumers. Try combining existing resources.
- Trust in serendipity: the art of creating while accepting that you can’t control everything. Serendipity means intentionally leaving room for random chance, discoveries, pleasant surprises, and unexpected pathways that will enable you to take your creative work in unforeseen directions.
- Check out inventories and find out what’s available in your neighbourhood or forgotten under the stage. Sometimes you discover hidden treasures!

2.2 Promoting Agile and Flexible Design

Before you solidify your ideas, find and include existing elements or materials that could be used to express your vision.

→ Work with mood boards instead of detailed sketches. This gives you more flexibility to adapt.

Projet Polytechnique – Porte Parole (2023-2024)

Directed by: Marie-Josée Bastien
Costumes designed by: Cynthia St–Gelais
© Yves Renaud

The costume design for *Projet Polytechnique* demonstrates an approach based on agility and flexibility. Around 50% of the costumes were second-hand, while many of the rest were purchased new from local ecoresponsible brands.

The designer opted for a flexible approach by selecting reused articles that suited each character's style. The duplicates are therefore not exact copies but variants consistent with the artistic vision.

The Living Stage – (Since 2013)

Various works created by CreateAbility, Born in a Taxi and Plantable Performance Research Collective
Concept and set design: Tanja Beer
© Gisela Beer and Valeria Pacchiani

© Dylan Lopez

The *Living Stage*[1] embodies ecodesign by combining performing arts, permaculture, and community engagement to create a truly ecodesigned performance space. Much more than just a set, it's a living ecosystem, part theatre and part garden, where each element is recyclable, biodegradable, and even edible. Far removed from standard set design, each installation is an original creation shaped by local resources, specialized knowledge, and context-specific needs.

This approach highlights the vital importance of flexibility in ecodesign—the unique nature of each project becomes a creative strength and a vehicle for engagement with local communities.

1 Tanja Beer. (s. d.). The Living Stage. Consulted online

2.3 Drawing Inspiration from Innovative Sustainable Materials

Explore new options on the market and try out new sustainable materials.

Countless scientists, designers, and engineers are currently working to come up with innovative alternatives to plastic, concrete, and other polluting materials

Clandestines – Centre du Théâtre d'Aujourd'hui (2023)

Directed by: Marie-Ève Milot
Spatial design by: Anne-Sophie Gaudet
© Valérie Remise

For this play supported with ecodesign consulting services, the team at the Centre du Théâtre d'Aujourd'hui chose to replace the initial wooden design—which was heavy, customized, and almost impossible to recirculate—with honeycomb core walls. They are FSC-certified and made in Canada, with strong potential for repurposing in the cultural sector.

They are lightweight, don't take up much space in inventory, and can be set up quickly and used in a playful manner.

Bioplastic Costumes

© Sarah Mosher

Sarah Mosher is an assistant professor of costume design and technology at Baylor University in Texas. With her students, she has developed bioplastic recipes that can be used for costumes. Bioplastics are an appealing alternative to conventional plastics, since they are biobased and biodegradable. Mosher explores various textures and also combines fibres and bioplastics to create more resistant materials. Her highly promising work demonstrates the versatility of bioplastics.

Resources related to innovative materials:

The Écothèque's materials section (in French only)

Physical material libraries: some material libraries specialize in sustainable, innovative materials for the cultural sector, such as those run by Écoscéno in Montreal and La Remise culturelle in Quebec City.

Future Materials Bank : discover new possibilities that will give you plenty of ideas.

The Chemarts Cookbook : innovate with the help of this guide that combines chemistry and craftsmanship to offer bioplastic recipes and more.

Materiom : an open-source biomaterial recipe bank.

ANTICIPATING MATERIALS' NEXT LIFE

The aim of anticipating future life cycles is to provide for the repurposing of production elements. Ensuring that elements or their components can be used again in other contexts will ultimately reduce the need to buy new materials, whose production has consequences for the environment. This approach means opting for higher-quality garments and materials with a view to using them over the long term. There are various strategies that will allow you to anticipate and consider future life cycles in the initial stage of the creative process and all subsequent stages.

1. Planned Repurposing

We encourage you to ask the following question at the start of the process and in all other stages:

Can the elements created for this project be useful to other people in my community or be repurposed by my organization in the future?

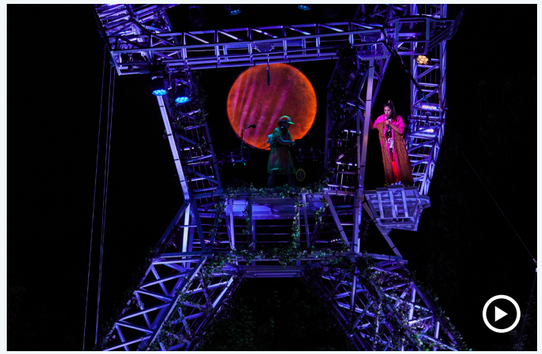
With the aim of repurposing them, treat materials as resources that have the potential for multiple lives after your work is over. The period when you are using them is just one stage in their overall life cycle.

1.1 Nurturing the Community

By actively listening to the real needs that exist with respect to creative work, you can have a beneficial effect on communities. Artistic creations make a significant contribution to society through their capacity to move, entertain, and provoke thought.

To take it a step further, you can also contribute in a tangible manner by donating materials. This also helps to build connections and relationships that are mutual, genuine, and lasting.

Les 3 géants – Machine de cirque, Montréal Complètement Cirque (2022)



Directed by: Jean-Guy Legault
Spatial design by: mirari
© Andrew Miller

Les 3 Géants had an ambitious ecodesign goal: to have a positive social and environmental impact. Through exploring the neighbourhood around the performance site, the team identified various community-specific organizations and issues, such as food insecurity and heat islands. It therefore decided to use real trees in the set design, which were planted in the neighbourhood after ensuring that the chosen species would improve the local canopy cover's resilience.

What's more, the planters for the trees were designed for sustainable outdoor use and were offered to an organization located in a park to cultivate a vegetable garden there. The project will therefore generate a significant amount of food and oxygen over the years. One-third of the costumes were also offered to a local organization, which will resell them to help fund its social mission.

1.2 Rental or Return to Supplier

There are many options. Prioritize rental or make arrangements with suppliers so that used elements will be returned to or collected by them once the production is over.

Oxygène – Théâtre Prospero (2013)

Directed by: Christian Lapointe
Spatial design by: Geneviève Lizotte
© Matthew Fournier

Instead of opting for a production based on accumulating new materials, the team explored various other options, prioritizing rental or agreements with suppliers to return elements to them after the performance.

From the beginning, decisions were guided by the idea of repurposing. The team considered used elements' potential to be reused by other people in the community or repurposed by Théâtre Prospero itself. Accordingly, most of the set design elements were rented from a company specializing in weddings.

1.3 Return to In-House Inventory

Purchase, make, and design high-quality elements that can easily be repurposed in order to keep them in your inventory. This makes it possible to amortize their cost (which may be higher) over multiple product With this in mind, we recommend that you set up an inventory.

1.4 Donating, Bartering, Selling

Evaluate the possibilities for trading or reselling materials, resources, or equipment, whether to another production, an institution, an artist, or resale sites. Where possible, think about the needs of the partners you plan to use in advance, beginning at the stage of acquiring, making, or designing your elements.

Gloucester – Théâtre La Bordée (2016)

Directed by: Marie-Josée Bastien
Spatial design by: Marie-Renée Bourget Harvey
© Nicola-Frank Vachon

The design of *Gloucester* is an example of proactively anticipating future use. Before the production, careful consideration was given to the possibility of repurposing scenic elements. Materials were treated to make them weather-resistant, so that it would be easier for the community to repurpose them outdoors in the future.

By planning from the design stage for materials that could meet potential needs, particularly through the internal donation of the fence, this initiative demonstrated the team's desire to make each project a source of resources for artists and residents.

2. Standardizing

If you opt for standard dimensions and methods that facilitate reuse,it will reduce the cost of making elements, ensure materials have a longer life, and stimulate creativity. This will help avoid excess purchasing of new materials and repeated rebuilding of low-quality elements, which are often thrown away quickly.

Showtime – Duceppe (2022)

Directed by: Le Projet Bocal
Spatial design by: Odile Gamache
© Danny Taillon

Manikanetish – Duceppe (2023)

Directed by: Jean-Simon Traversy
Spatial design by: Xavier Mary
© Danny Taillon

Set panels are often built with new materials then thrown out after being used for a very short time. By standardizing their dimensions and selecting high-quality materials, it is possible to repurpose them for different works. That's what Duceppe's technical team did, favouring 4' x 8' flats, the basic construction element.

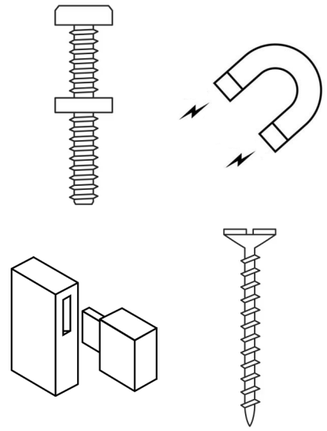
To date, these theatre flats have been repurposed for four different shows over two seasons, demonstrating the advantages of this approach.

(Information updated in January 2025)

3. Mechanical Assembly

Using modular systems and attachment devices that can be removed afterward makes it possible to design structures whose elements can easily be reused.

For example, consider mechanical assembly with nuts and bolts, screws, tenons and mortises, magnets, or velcro, which will simplify disassembly and allow you to separate materials for the purpose of reusing, recovering, or recycling them.



Important

Mechanical assembly may require more time at the start of the creative process for researching and thinking about set element design, since you need to consider what will happen after the production. However, tear-down will be quick and easy.

Compared to using nails or glue, mechanical assembly may seem more expensive in the short term, but you will gradually save money as the cost of scenic elements is amortized across other productions.

RESPONSIBLE SOURCING

When it comes to sourcing, adopting a responsible approach means considering environmental, social, and economic criteria for each purchase.

1. Reuse

The most ecoresponsible sourcing method is to repurpose resources as much as possible. This strategy, known as reuse, involves giving another life to elements and materials rather than buying new ones. Using elements from your inventory, borrowing them from other companies, renting them, and buying them second-hand are all considered forms of reuse.

Chimerica – Duceppe (2024)

Directed by: Charles Dauphinais
Set design: Loïc Lacroix Hoy
Props: Mayumi Ide-Bergeron
Costumes by: Jessica Poirier-Chang
© Danny Taillon

This large-scale show achieved ambitious ecodesign goals. To source elements, the team carefully explored existing inventories, borrowed elements from other companies, and prioritized rental and second-hand purchases. 87% of the set elements and props were sourced from reuse, along with 66% of the costumes, for a total of 295 costume elements!

A detailed description of the ecodesign strategies used on the show can be found here :
Écothèque (in French only).

Second-hand materials are less expensive than new elements and have a smaller environmental footprint, since a significant proportion of a product's environmental impact is caused by the extraction of manufacturing materials when it is first made. Another benefit of these materials is that they promote local employment, since time and funds will be allocated to adapting existing materials rather than supporting non-local manufacturing.

At the same time, you also avoid the negative impact of long-distance transportation.

2. Sustainable Materials and Products

Prioritizing sustainable materials will ensure they have been made in an eco-friendly, ethical manner and do not pose a threat to your team's health.

Examples of sustainable materials include non-toxic products such as paints and dyes made without volatile organic compounds (VOCs) or any material certified by a credible organization (see the list of certifications in the appendix).

3. Buying Local

Buying local ensures your production benefits the local community as well as eliminating impacts associated with long-distance transportation. It also makes it possible to promote fairer social and working conditions while enhancing the resilience of the local economy.

Where to Source Materials from Reuse

Écoscéno – materials from the cultural sector (Montreal)

La Remise culturelle – materials from the cultural sector (Quebec City)

Réco – materials from the construction sector (Montreal)

Mine urbaine – recycling of bulky items and services specializing in ecodesign (Laval)

Some Simple Actions

* **Avoid buying from Amazon, a company that competes with local merchants using unfair business practices and subjects its personnel to unethical working conditions.**
* **Avoid last-minute express deliveries, which require transporting a single package in a large vehicle or using air transport rather than ground or sea shipping.**
* **Look instead for local, ecoresponsible suppliers via listings such as Les Pages vertes or the CQEER's directory of suppliers (in French only).**

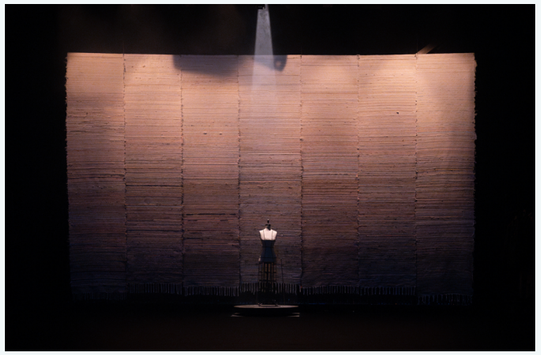
SUSTAINABLE CRAFTING AND MAKING

Devote your budget funds to workers, craftsmanship, repairing materials, and maintaining quality products rather than buying new materials.

1. Promoting Craftsmanship

This involves promoting local workers, encouraging the preservation of specialized trades, and relying on craftsmanship and approaches that respect materials.

34B – Théâtre La Bordée (2023)



Directed by: Marie-Josée Bastien
Weaving by : Ohchionwahta'
Spatial design by: Marie-Renée Bourget Harvey
© Vincent Champoux

This project showcases an approach in which the process matters as much as the result. *34B* shows that you can co-create set designs combining craftsmanship, tradition, and community, with results that are enriched by the process. For this play, the backdrop was woven on a loom using second-hand textiles in collaboration with Wendat Ohchionwahta', a group of elders from the Wendake community.

By making traditional weaving a key element, this project demonstrates the possibility of devoting budget funds to high-quality artisanal work and techniques that respect materials, as well as promoting women's work.

In addition, many textile materials were collected for reuse and used to weave other elements for the show *YAHNDAWA' : ce que nous sommes*.

It was a profoundly engaging, cross-generational initiative that literally wove valuable connections between the participants.

2. Repairing

Repairing is a pillar of the circular economy, since it extends the lifespan of elements and equipment. At the same time, it reduces resource consumption and waste generation. Prioritizing repairs also helps to maintain and develop local employment (cobblers, tailors, electronic equipment repair experts, etc.).

3. Upcycling

By recovering materials or elements that are no longer being used and transforming them into higher-quality or more useful materials or products, you can extend their lifespan and avoid the energy consumption that would be required to recycle them.

Showtime – Duceppe (2022)

Directed by: Le Projet Bocal
Costume design by: Elen Ewing
© Danny Taillon

The costume designer for *Showtime* prioritized the recovery of existing clothing, which she transformed into higher-quality costumes. By reinventing neglected clothes and props, this creative process extends their lifespan and avoids the harmful impacts of resource extraction and landfill disposal.

4. Optimizing Materials

Maximize the use of materials and avoid waste by using everything you can, including scraps, when creating your work. Here are some examples:

- **Plan to cut material in a way that will reduce the amount of scraps**
- **Plan to use any scraps that are generated in the future or repurpose them in your current project**
- **Cut down on non-essential packaging.**

Christine, la reine-garçon – Théâtre La Bordée (2019)

Directed by: Marie-Josée Bastien
Spatial design by: Marie-Renée Bourget Harvey
© Nicola-Frank Vachon

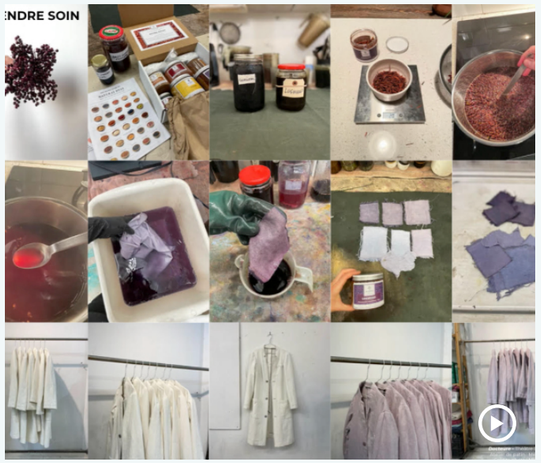
For this show, the designer created an ice structure using scraps of Plexiglass obtained from shops in the area. Besides saving money, this enabled the creation of an original design.

5. Taking Care of Materials and People

Taking care of resources means ensuring that materials are not wasted. Instead, they are designed with care to avoid discarding them after short-term use.

Taking care of people means choosing products that are not harmful to their health. Taking care also means taking the time needed to do your work in a manner that respects materials and people.

Docteure – Duceppe (2023)



Dyeing workshop: Mélanie Turcotte
© Mélanie Turcotte

Directed by: Marie-Ève Milot
Costume design by: Cynthia St-Gelais
© Danny Taillon

Docteure explored a bold approach to dyeing costumes by making use of natural dyes. Using these instead of traditional synthetic options makes it possible to avoid harmful chemical products.

In this way, the dyeing workshop successfully tackled the challenge of adapting traditional techniques to meet environmental requirements.

Laying the foundation for ecodesign initiatives

To maximize the reach and effectiveness of your initiatives, it is important to plan the various stages in advance.

Adjusting the Schedule

Whether you're working alone or with a team, undertaking ecodesign will require that you revise your schedule. Learning to do things differently and adapting to a new paradigm takes time and patience.

Time is precious, so it's essential to manage it well. Establishing a schedule will help everyone plan for the different stages of the project and coordinate their efforts.

The start of the design stage, especially between creating the preliminary and final designs, is when you should focus the most on defining your ecodesign expectations and objectives within a specific timeframe.

Decisions taken at this point will influence all subsequent processes and have the most impact on the final results.

From the Start of the Design Stage

Plan for ecodesign-related actions in your schedule:

* Link ecodesign strategies to the work's theme.
* Meet with the local community by mapping the ecosystem. This is your opportunity to discover previously unknown resources and partners.
* Check that the objectives and choices are aligned with your organization's vision and ecoresponsibility action plan, if there is one.
* When thinking about design, consider the potential for repurposing elements once the production ends.
* Visit second-hand stores to find ideas for materials, consult existing inventories, and check out what's available at the performance venue.
* Plan to hold work sessions and brainstorming sessions with the artistic director and the production and creative teams :
  Evaluate solutions that inspire your team.
  Reach an agreement on the research to be carried out and the strategy to be adopted.

Once the Design Is Established

At this stage, you should consider ecoresponsible sourcing. This is the time to research second-hand materials and test new eco-friendly products.

Plan for the following in your schedule:

* Researching new suppliers and testing new techniques and materials takes longer than the usual process. Make sure you allow enough time for this.
* Designate a specific length of time and set up a schedule for researching ecoresponsible options. This will help you avoid having to make hasty last-minute decisions and give you time to evaluate other possibilities if the proposals you receive are not suitable or applicable.
* Plan meetings with the shop, suppliers, and makers to discuss your intended ecodesign strategies and your team's values. This will also give you an opportunity to present your preferred ecoresponsible brands and certifications.
* Refer to the ecodesign spreadsheet to review your actions and track the progress that has been made toward your objectives.
* Organize a meeting at the start of the performance period to discuss how elements will be recirculated afterward. Conducting the activity at this point will enable your team to find solutions for elements that do not yet have any takers.

Here are some questions to guide your discussion:

What future do we anticipate for the different elements?

Which elements will be given to other organizations?

What are those organizations?

What condition are they in?

Which materials will be recycled?

During the Performance Period

Performances are generally less affected by ecodesign strategies for sourcing, making, and design, except in the case of a tour oor productions that use a large amount of perishables in each performance. This period is mainly used to prepare for recirculating elements after the production.

Plan for the following in your schedule:

The first run of performances is the ideal moment to collect all the information about the work's elements in preparation for a review or team sharing session. It's important that this step takes place early on, since some data may be lost or forgotten in the weeks and months following the production. You should therefore plan to:

- Fill out the ecodesign spreadsheet or analyze the meeting of targets with relevant team members
- Obtain missing data if needed (weight, supplier, dimensions, etc.)

This is the time when you should ensure that design elements will be recirculated. It is also a good opportunity to establish the process to be followed based on their next life cycles. It's strongly recommended that you implement these procedures at least one to two weeks before the final performance.

You should therefore plan to:

- Confirm which recycling centres, suppliers, or non-profit organizations will receive materials after tear-down
- Plan transportation to deliver items to their next destination

After the Production

At this stage, you should allow time to wrap everything up properly. You may want to include the following actions in your schedule:

- Updating the inventory
- **Sharing** materials with the cultural sector
- Meeting with the extended team to conduct a review of ecoresponsible actions (whether carried out or not), celebrate your achievements, and determine areas for improvement

Ecodesign-Conscious Budgeting

Ecodesign is viewed as more expensive than conventional design, but often it's a case of costs being shifted around. Second-hand materials are less expensive, but they require spending more time on the design process and the development of craftsmanship. The costs to be borne are transferred toward local workers, which has a number of positive impacts: connections with local communities are maintained, knowledge is preserved, and the project as a whole will be more cohesive.

If you opt for new materials, it's preferable that you buy high-quality elements (with sustainability certifications, if possible) and amortize them over a longer period of time.

Budgeting Tips

* Keep the proceeds from the resale of certain scenic elements after the production to fund ecoresponsible initiatives.
* Create a dedicated ecodesign budget that is separate from your production budgets. This will prevent the sourcing of sustainable materials from being perceived as a burden on a specific department.

Example

At the Just For Entertainment agency, a fund was set up so that teams can collectively decide where to invest in order to maximize their environmental impact. This might include acquiring sustainable, traceable materials, funding additional hours of ecodesign consulting, or repurposing and modifying existing elements.

* Think about the long-term amortization of equipment. It's better to procure high-quality equipment that will enhance the theatre's inventory and allow for its long-term amortization rather than opting for low-quality scenic elements that have to be rebuilt for each production.
* Plan to offer enhanced fees for designers who commit to the ecodesign process and invest more time on research and testing and attend brainstorming sessions at the start of the project, along with reviews or team sharing sessions afterward.
* Allocate budget funds for assistants or other support personnel who will help you carry out research and testing.

Clandestines – Centre du Théâtre d'Aujourd'hui (2023)

Directed by: Marie-Ève Milot
Costume design by: Cynthia St-Gelais
© Valérie Remise

In *Clandestines*, special attention was paid to finding second-hand clothing. This choice required the equivalent of around one extra week of full-time work. A higher design fee was agreed to reward the designer for the time and expertise required for this ecoresponsible approach.

* Suggest that suppliers take back materials or items once your production is over. Generally speaking, they are not used to this kind of arrangement, and many of them will be happy to take back their items so that they can resell them. Doing this could save you money by obtaining a discount from the supplier or save on tear-down time if they agree to collect materials and disassemble everything themselves.

Madame Butterfly – Opéra de Québec (2013)

Directed by: Jacques Leblanc
Set design by: Marie-Renée Bourget Harvey
© Louise Leblanc

By asking their wood supplier to recover the materials at the end of the project, Marie-Renée Bourget Harvey and her team were able to explore the possibility of closed-loop recycling. While the supplier was surprised by this atypical approach, it eagerly agreed to disassemble and recover the wood it had sold to the production, as well as other materials used in the scenography. This experience highlights the importance of proactively communicating with suppliers as well as mechanical assembly's potential to facilitate the repurposing of materials.

Adding Ecoresponsibility Clauses to Contracts

Ecodesign requires commitment and co-ownership from the entire team. It must not depend solely on the designers. Ecodesign commitment clauses are a means of recognizing its significance and value. Adding these clauses to contracts with collaborators, shops, suppliers, and partners is an effective way to highlight the importance of the goals that are being pursued and promote commitment toward a shared objective.

This approach offers an opportunity to explicitly discuss the contract terms and agree on additional clauses that satisfy all the concerned parties, particularly when collaborating with freelancers.

These agreements can take various forms, such as providing support for implementing ecodesign, compensation for additional time spent on it, or ecodesign consulting services.

Example of Ecoresponsibility Clause in Contract

The producer [name of your company] is adopting an ecodesign approach with the intention of making the most ecoresponsible choices throughout the creative process for [name of production]:

* The members of the production team [designers[1], directors, technical directors, production managers] agree to follow ecodesign best practices by prioritizing actions aimed at reducing the project's environmental impact.

1 Important: Tasks related to the implementation of certain ecodesign strategies are not covered by collective bargaining agreements between professional associations (e.g., APASQ, ADC) and producers. Separate agreements are therefore required for these tasks.

The production team [designers, directors, technical directors, production managers] agree to:

* Prioritize the use of second-hand materials and/or local materials as well as construction methods that enable set elements to be taken apart afterward.
* [For designers] Enable the repurposing of design materials at the end of their life so that healthy materials are not sent to landfill. Recognizable set elements may be subject to specific agreements (resale rights, acknowledgement in the program, repurposing under certain conditions, right of priority for repurposing, etc.).

This clause is based on the Festival d'Aix's Methodological Guide (in French only).[1]

Establishing and Managing an Inventory

Keeping an inventory is an excellent way to promote reuse. However, dynamic and proactive management is essential to avoid it turning into a heap of unused materials piled up in a warehouse until they are thrown out.

With an ecodesign approach, the goal is to ensure that materials circulate as much as possible. It is therefore recommended that you create and regularly update an inventory file. Active management will also help you let others know about the inventory's contents and make them as widely accessible as possible.

Managing an inventory is a good example of a circular economy-based approach, since it facilitates the sourcing of second-hand materials and components by other productions or their repurposing in future projects. An inventory gives you a more holistic perspective on the life of set elements, costumes, and props. It also saves money and reduces transportation-related impacts.

Tips

Including certain categories will make it much easier for teams to source materials and items from the inventory. Here are some recommendations:

* Photo of the item (in storage or on stage)
* Dimensions
* Availability
* Quantity
* Condition
* Material
* Physical location

You can divide an inventory into several main categories to facilitate managing and using it. Examples include:

* Set elements and props: flats, steps, furniture, dressing, risers, etc.
* Technical equipment: lighting, sound, rigging, trusses, and structures
* Safety-related elements: stunt mats, handrails, exit signs, etc.
* Construction materials and hardware
* Transportation elements

While these categories are broad, they will enable the required elements to be located quickly. This facilitates planning while optimizing the use of items you already have.

Encourage your team to consider potential destinations (inventories, communities, suppliers) for various elements. It might be helpful to photograph and catalogue your prop and set material inventories over time to facilitate repurposing them.

In order for an inventory to be practical and useful to your teams or other organizations, it's essential to ensure the visibility of items in stock. To achieve this, responsibility for maintaining the inventory must be recognized as an official task (regular updating of data, including the reuse potential of items, the names of designers and technical directors, etc.).

Making your inventory accessible to the artistic community will make it easier to reuse resources and equipment.

A good practice when disassembling scenic elements is to set up bins for sorting hardware and reusable materials. This will facilitate keeping track of inventory.

Sharing Resources

There are significant costs associated with the storage of elements. Developing sharing arrangements with other cultural spaces and pooling the inventories of multiple companies will increase the potential for responsible sourcing and repurposing while helping to reduce costs.

Resource sharing includes transportation as well. For example, consider sharing vehicles or transportation between productions during tear-down.

Tips

* Make a detailed plan of shared needs in the short and medium term.
* Establish a group of users who work within a reasonable distance of each other.
* Create clear agreements, especially for expensive technical equipment. When shipping and handling this equipment, there is always a risk of breakage.
* Designate a person in your team who will have the responsibility to make decisions for your organization.

Example: Sharing an Inventory

Duceppe, Théâtre de Quat'Sous, Théâtre Denise-Pelletier, and the Centre du Théâtre d'Aujourd'hui, in collaboration with Écoscéno, store their set pieces and materials together in the same warehouse.

The goal is to create an ecosystem where discussion and creative relationships play a central role, while encouraging dynamic interaction and resource sharing.

The provided space is designed to meet the needs of theatre companies and enable optimized storage, flexible management of material loans, and equipment maintenance.

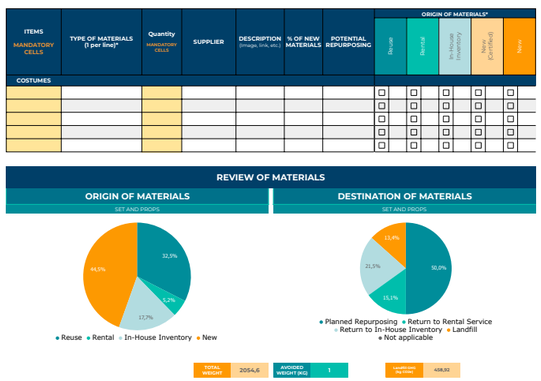
1 Le Guiner, Lyonnet., Vinent-Garro, Fermé, and Gorse, September 2021.

Ecodesign-specific tools

1. Écoscéno's Ecodesign Spreadsheet

This spreadsheet developed by Écoscéno allows you to incorporate a production's ecodesign data (costumes, props, sets, light, sound, video) for the purpose of analysis and gain an overall view of the environmental impacts and the ecodesign strategies that are implemented. It may be used to look up specific information or as a decision-making tool to help you achieve your objectives.

Here is a link to the downloadable ecodesign spreadsheet.



2. The Theatre Green Book: An Excellent Source of Ideas

The Theatre Green Book is the result of a collective undertaking that summarizes the opinions of theatre professionals from around the world about best practices for reducing your environmental impact related to an ecoresponsible approach. Its recommendations are based on the experiences of its contributors and on proven ecoresponsibility methodologies.

Don't hesitate to consult the Theatre Green Book when it's time to create your action plan. This publication is a comprehensive practical resource that will help you successfully carry out your initiatives. It divides ecoresponsibility objectives into three levels: base, intermediate, and advanced.

	Base	Intermediate	Advanced
Sourcing reused materials	**50%**	**75%**	**100%**
Recirculating materials	**65%**	**80%**	**100%**

For reference purposes, here are the average achievement rates for the *Theatre Green Book's* objectives for shows in Quebec that used Écoscéno's consulting services:

For shows that used the consulting services, on average **63.7%** of materials were sourced from reuse.

82.1% of the materials used during these shows were recirculated[1].

3. Creative Green Tools

Creative Green Canada's tools enable organizations in the arts and culture sector to identify and calculate their main sources of greenhouse gas emissions with the aim of reducing their impact (including tours, productions, and festivals).

The program was developed by the Centre for Sustainable Practice in the Arts (CSPA) in partnership with the Conseil québécois des événements écoresponsables (CQEER) in Quebec. It is based on the Creative Green (CG) Tools created by Julie's Bicycle in the U.K.

The Conseil des arts et des lettres du Québec is encouraging companies to which it provides operating grants to begin measuring their impact with the CG Tools by 2028.

To access these tools, consult the website, training videos, and user guide.

4. Hierarchy of Actions

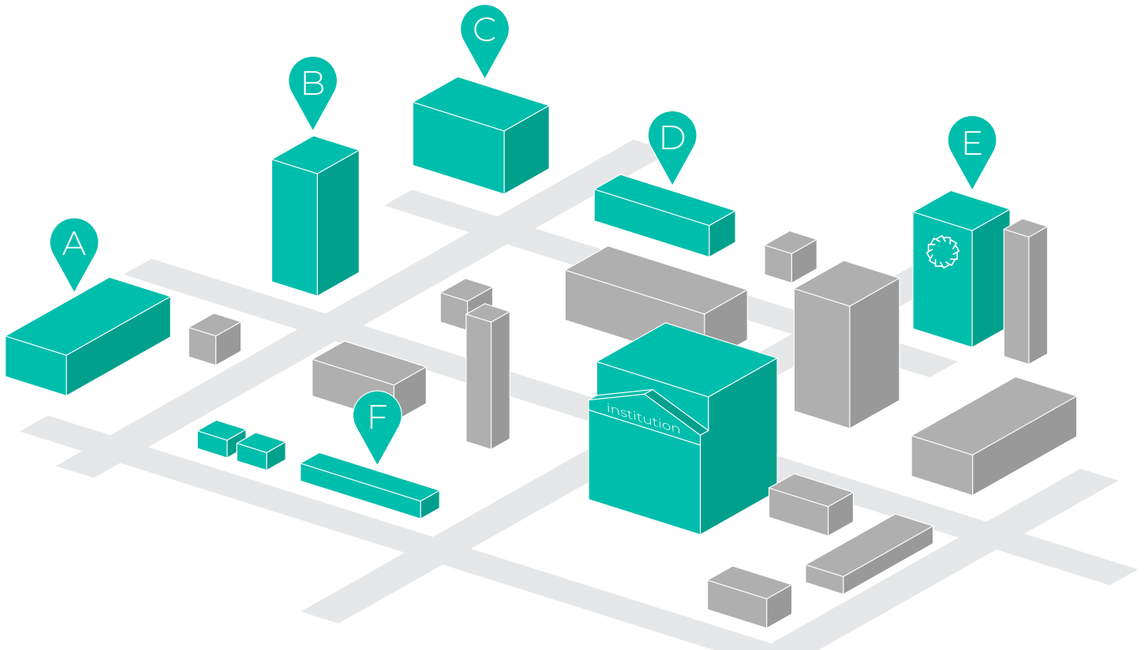
Environment Canada's 3R approach—Reduction, Reuse, Recycling—represents a basic hierarchy of actions to follow in order to reduce your environmental footprint.

- **Reduction**: buy less and buy better
- **Reuse** : give objects a second life (repair, donate, upcycle)
- **Recycling** : sort waste so that it will be transformed[2].

1 Averages as of January 30, 2025, for 20 shows that used Écoscéno's ecodesign consulting services. Percentages are calculated based on the weight of the elements.

2 Environment and Climate Change Canada (RECYC-QUÉBEC), n.d.

5. Ecosystem Mapping



A - Le Chaînon

MISSION: Help and accommodation for women in difficulty

DONATIONS: Clothes and accessories

B - Welcome Collective

MISSION: Providing immediate assistance to the city's most vulnerable asylum seekers

DONATIONS: Furniture

C - Little Brothers

MISSION : Breaking the isolation of elderly people living alone in Quebec

DONATIONS: Clothes and accessories

D - Réco

MISSION: Reuse of materials to reduce the environmental footprint of construction waste and increase the socioeconomic resilience of communities

DONATIONS: Materials, hardware, and architectural elements

E - Écoscéno Warehouse

MISSION : Reducing the impact of the cultural sector through a circular approach

DONATIONS: All ecodesigned elements

F - Télé Ciné Montréal

DONATIONS: Scenic elements of all kinds. Highly recommended for rental returns to optimize transportation.

Mapping conducted in 2023 for the show *Clandestines* at Centre du Théâtre d'Aujourd'hui
© Écoscéno

Mapping helps connect a performance venue or cultural creation space to the neighbourhood and understand its realities. It also helps the team adopt the habit of sourcing and recirculating materials within the local community and promotes the development of lasting relationships with trusted partners.

5.1 Mapping of Sourcing

- Look for cultural sector suppliers that exist in the neighbourhood: costumers, technical equipment rental agencies, textile scrap suppliers, etc.
- Identify other cultural institutions in the sector with whom you could undertake Resource sharing: museums, theatres, circus troupes, etc.
- Cast your net wider, if necessary, to include theatre schools, thrift/vintage stores, hardware stores with a wide selection of ecoresponsible products, ecocertified print shops, etc.

Example of Hochelaga-Maisonneuve in Montreal: There are four local suppliers with cultural sector expertise located within 5 km (less than 30 minutes' travel) of each other:

- Le Grand Costumier: costume rental, search, and shipping, shop rental, information centre.
- Espace Costume: costume rental service for film professionals, individuals, and private events.
- Gascon & Krukowski: family-run furniture and prop rental business.
- Écoscéno: material and prop sales. Écoscéno also offers ecodesign consulting and training services for the cultural sector.

5.2 Mapping of Recirculation

The first step is to find non-profit organizations located near the performance venue or creative space. Check out their mission to determine their areas of activity and needs.

In the case of the Centre du Théâtre d'Aujourd'hui, an organization located nearby is Le Chaînon, which works with women in difficulty and funds its mission through donations of clothing, furniture, and accessories.

Tip

Be sure to verify the conditions for making donations and when they are accepted to avoid wasted effort and unpleasant surprises.

6. Team Sharing Session on Ecodesign

Sharing information with your team allows them to reflect on the ecodesign initiatives that were carried out in the context of your production. The aim is to list your actions and review them by quantifying their environmental impacts to determine what was successful and what needs to be improved. With this in mind, it helps to collect the relevant information while the project is ongoing.

A review is a good time to highlight the positive impact that adopting an ecodesign-based approach has had on your team members, organization, and local communities.

Creating a report on your ecodesign activities will be a valuable tool to promote your efforts to the general public, artistic community, and governments. Sharing this information is a good communications strategy for audience development.

Suggested information to share:

- The ecodesign strategies that were used (see the ecodesign spreadsheet)
- Percentage of scenic elements that were obtained through responsible sourcing and recirculated (see the ecodesign spreadsheet)
- The CO_2 equivalent for transportation, metals, and lighting (see the Creative Green Tools)
- Lessons learned from your ecodesign approach
- Your action plan for the future

Did You Know?

If you already have a well-established ecodesign approach, don't hesitate to let people know about it! Various awards and honours are handed out to showcase ecodesign initiatives. In Quebec, there is the Conseil régional de l'environnement award and Vivats Award - Boldness in Art.

The latter, offered by the Conseil des arts de Montréal, comes with a $10,000 grant and recognizes artistic organizations who excel in the area of ecoresponsibility.

Conclusion

When it comes to ecodesign, there are many possibilities available to you, including ecological design, anticipating the next life of materials and scenic elements, responsible sourcing, and sustainable crafting and making.

By making use of the strategies presented in this guide, you can work on implementing these gradually and tailor your actions to suit the needs of each production. We have suggested methods and resources to help you calculate your impacts, with the aim of identifying areas for improvement and communicating your objectives and the nature of your initiatives. In the second part of the guide, we will provide hands-on tips and resources for applying ecodesign in your artistic practice or field of expertise.

Fundamentally, ecodesign is a team effort that involves shared responsibility and engagement.

To be effective, this approach must be fully aligned with your sector, communities, and ecosystems.

Gradually incorporating its principles into your practice one step at a time, with the support of the cultural and artistic sectors, will lead to remarkable changes.

Now, you just have to decide where to begin.

Are there subjects relevant to your circumstances that are not covered in the guide? Do you have practical experiences to share that could enhance or supplement its content?

Don't hesitate to tell us your experiences, results, and suggestions—they will help us refine the approaches presented here.

Write to us at info@ecosceno.org.
We'd love to hear from you!

PART II – ECODESIGN REFERENCE SHEETS

In this section, you'll find reference sheets divided by field or profession. Their goal is to serve as a checklist and provide practical solutions that you can easily share with others or print on sustainable paper. They are tools designed for daily use.

Ecodesign is a collective responsibility for all members of your team. To maximize the chances of achieving your ecoresponsibility targets, each individual has an important contribution to make, regardless of their role.

Artistic Director and Executive Director

Plus: Director, Choreographer, etc.

You play a key role in ecodesign initiatives, since your job involves getting teams to work together toward a shared goal.

When team members feel that management cares about ecodesign and understands its importance to them, the building blocks are in place for fully committing to this approach.

Embracing ecodesign is the action that will have the greatest impact.

Laying the Foundation for Ecodesign in Your Organization

- Search for funding to support your ecoresponsibility initiatives
- Discuss what courses of action are desirable and feasible with your team
- Set up a green committee within the team
- Set aside a portion of your budget for expenses related to ecoresponsible solutions (see the budgeting tips section).
- Make an ecosystem map, and present it to the team while ensuring that your creative needs are linked to those of the community.

From the Start of the Design Stage

- Engage the creative team by sharing the project's values with everyone involved in ecodesign
- Define and communicate at least one clear, measurable ecodesign target for the project (e.g., 50% of design materials should be sourced from reuse)
- Ensure that ecoresponsibility is addressed at every meeting
- Encourage team members to read the guide and suggest the ecodesign strategy they think would be most fruitful for the project
- Encourage team members to be bold when making proposals that incorporate ecodesign
- Add ecoresponsibility clauses to contracts with collaborators, suppliers, and partners (see the section on contracts).
- Adopt a flexible design approach to ensure the feasibility of ecodesign initiatives and support their implementation

Once the Design Is Established

- Along with the schedule and budget, include environmental and social parameters in your design considerations
- Incorporate sustainability criteria into your purchasing decisions
- Be prepared to let go of certain ideas to facilitate responsible sourcing and anticipating the next life of materials.

After the Production

- Plan a team sharing session to highlight what worked and what needs to be improved next time
- Share successes and pitfalls in your internal and external communications and grant reports

For example, this is what Duceppe does on duceppe.com/ecolo (in French only), which lists ecodesign initiatives that were successful for its shows, along with those that were less successful.

The Théâtre à l'eau froide created an ecoresponsibility support guide (only available in French) intended to provide strategies, tips, suggestions, and concrete examples based on its experience producing *Cygnes noirs*.

Useful Resources and Links

Establishing an action plan

Environmental policy

The Theatre Green Book's objectives

See the section on contracts for an example of an ecoresponsibility clause

Écoscéno's ecodesign spreadsheet

Ecosystem mapping

Production Manager

You oversee the project in terms of finances, scheduling, and logistics. The importance you place on social and environmental factors is therefore essential to implementing ecodesign.

Ecodesign also means taking care of your team. By including practical tools as an integral part of the project, regularly checking on ecodesign initiatives, and making any adjustments that are required, you will enable the team to successfully tackle the challenges inherent in this change of approach.

Planning

- Search for funding sources to support your ecoresponsibility initiatives
- Set aside a portion of your budget for expenses related to ecoresponsible solutions (see the budgeting tips section)
- Add ecodesign clauses to contracts with collaborators and suppliers
- Create a work schedule that allows more time for ecodesign and ecoresponsible purchasing
- Give an ecoresponsibility update in each creative and production meeting
- Define at least one clear ecodesign target for the team (e.g., use those in the Theatre Green Book for ideas)
- Provide creators with inventories of materials, furniture, props, costumes, etc. stored internally or at cultural spaces with which you have a **resource sharing** agreement
- Provide an ecosystem map to the creative team, such as a list of suppliers for sourcing **reused materials** and organizations willing to accept materials once the production is over

From the Start of the Design Stage

- Anticipate the future use of elements once the production is over

→ **As an example, this could be done by drawing on the collective intelligence of the team during production meetings**

- If the project is touring, reduce the greenhouse gas emissions it generates by choosing lightweight materials that can be transported in a smaller truck

Once the Design Is Established

- Opt for borrowing, renting, or resource sharing before considering the purchase of new equipment. Prioritize the use of standard equipment that can easily be reused
- Prioritize the use of sustainable materials. Prohibit the use of toxic or environmentally harmful materials: polystyrene, PVC, tropical hardwoods, products with high VOC levels (see sustainability certifications).
- Follow up carefully with the shop to ensure that ecodesign strategies are being applied (mechanical assembly, certified finishing products and materials)
- Plan to allow more time for researching sustainable products, materials, and suppliers or suggest to the technical director and designer that a resource person be designated

- Use the ecodesign spreadsheet as a decision-making tool
- Be careful with last-minute demands in order to meet your ecoresponsibility targets
- Monitor the kilometres driven by production vehicles and distances travelled on tour to keep track of the production's carbon footprint using the Creative Green Tools
- Ensure ecoresponsible management of perishables and care of costumes, wigs, and props.

After the Production

- Ensure that the team has completed the ecodesign spreadsheet and check the results
- Enter your data in the Creative Green Tools
- Set aside time to update prop and stage element inventories to promote their repurposing
- Plan a team sharing session to review what worked well and what needs to be improved next time

Technical Director

Useful Resources and Links

The Theatre Green Book's objectives

Tools for responsible sourcing: CQEER's list of suppliers Les Pages Vertes (in French only) Ecosystem mapping

The Creative Green Tools

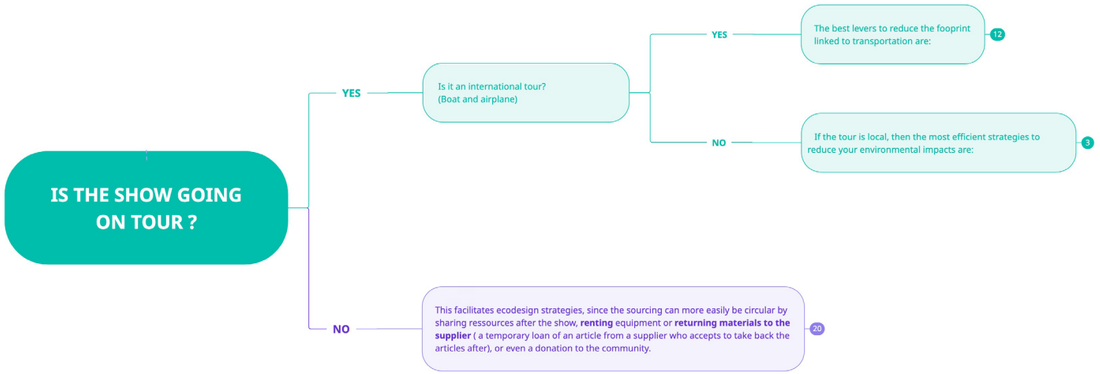
Ecodesign contract clauses

Écoscéno's ecodesign spreadsheet

You are jointly responsible for responsible sourcing, strategies, crafting and making, and anticipating materials' next life.

By making a commitment early on in the creative process, you will maximize the possibilities for reducing the production's environmental footprint and may encourage shops and suppliers to take part in your initiative.

If a work is going to tour, that will have a strong influence on your ecodesign strategies. We have created a decision tree to help guide your choices.



The image of the decision tree opposite is for reference only. Click on the link to open the Miro application and view the decision tree in large format.

Planning

- Think about ways to build elements using the organization's inventories and storage facilities, along with those of cultural spaces with which you have a **resource sharing** agreement
- Plan to visit a site that supplies second-hand materials with the design team (e.g., Écoscéno in Montreal, Remise culturelle in Quebec City)
- Familiarize yourself with ecodesign targets (e.g., those in the Theatre Green Book, the ecodesign spreadsheet, or the action plan and hold an open discussion about expectations with the management team.

From the Start of the Design Stage

- Anticipate the future use of elements once the production is over
- If the project is touring, reduce the greenhouse gas emissions it generates by choosing lightweight materials that can be transported in a smaller truck
- Accompanied by the designers, meet with shops to present the organization's commitment to ecodesign; this could be an opportunity to discuss assembly options and the use of certified finishing products and new materials

Reminder

Many cultural organizations now have experience in ecodesign: don't hesitate to contact technical directors who have already worked on ecodesigned projects to help you identify suppliers and techniques.

Once the Design Is Established

- Opt for borrowing, renting, or resource sharing before considering the purchase of new equipment
- Prioritize repair and maintenance of existing electrical and electronic equipment to extend its lifespan; designate someone on your team to take charge of equipment repairs

Rental Tip

- Choosing the supplier located closest to the show venue will allow you to minimize greenhouse gas emissions associated with transportation

- In the creative process, prioritize materials with sustainability certifications (see certifications of wood and metal in the appendix), such as:

  - → **FSC-certified wood that is not obtained through clear-cutting**
  - → **Certified stage fabrics**
  - → **VOC-free paint**

- Prohibit or reduce the use of toxic or environmentally harmful materials, such as:

  - → **Polystyrene**
  - → **PVC**
  - → **Tropical hardwoods**
  - → **Epoxy**

- Set aside time with the design team to carry out research and testing necessary to explore different ecoresponsible options (e.g., evaluating drying time, testing sustainable finishes, ordering samples of new materials)

- Plan for mechanical assembly and opt for standardization in construction plans in order to repurpose materials once the production is over

- Follow up closely with the shop to ensure that ecodesign strategies are being followed

After the Production

- Enter weights and quantities in the ecodesign spreadsheet then analyze the results

- Set aside time for updating the inventory to encourage repurposing and designate time slots for repairs and maintenance

- Document information related to the future use of elements, either by yourself or others (composition of elements, assembly methods, technical specifications)

- Use a team sharing session to review what worked well and what needs to be improved next time

Useful Resources and Links

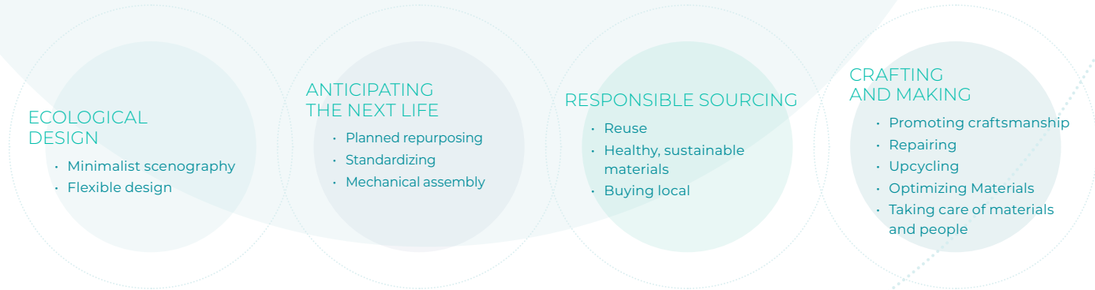
The Theatre Green Book's objectives

Écoscéno's practical training workshop "Ecocrafting and making" (mechanical assembly, finishing product tests, sustainable material alternatives)

Écothèque (in French only)

Ecodesign spreadsheet

Set and Prop Design



Your artistic contribution is crucial to determining the production's social and environmental footprint.

You have the power to design sets and props in an ecoresponsible manner and decide forms, materials, and finishes, as well as the potential for repurposing once the work is done. There is a wide range of creative ecodesign strategies that can support your creative process.

It should be noted that the tasks associated with certain ecodesign strategies are not covered by collective bargaining agreements (see the section on ecodesign clauses).

It's recommended that you adjust the timeline and budget and include a schedule in your contract to recognize the additional time needed to adapt your practice based on an ecodesign approach.

Planning

- In collaboration with the technical director, consult the organization's inventories and storage facilities, as well as those of cultural spaces with which there is a resource sharing agreement. If there is no inventory available, visit the venue in person or find out what scenic elements are available on site.
- Before thinking about the design, visit locations that provide second-hand materials (e.g., Écoscéno in Montreal, La Remise culturelle in Quebec City), which will allow you to develop the design using material that is readily available in large quantities
- Familiarize yourself with the organization's ecodesign targets and ensure that you have the full support of the team in order to achieve them

From the Start of the Design Stage

- Link creative needs to those of the community: consult the ecosystem map
- Anticipate the future use of elements once the production is over by asking the following question: *if these scenic elements were offered to me, would they inspire me to create a new set design?* You may need to reconsider the dimensions, finish, solidity, recurring need, or modularity.
- Along with the technical director, talk to the shop about the possibilities of mechanical assembly and the use of healthy finishing products and certified new materials

Once the Design Is Established

- Opt for borrowing, renting, or resource sharing before considering the purchase of new equipment
- Prioritize the use of sustainable materials (see certifications) and prohibit the use of toxic or environmentally harmful materials, such as polystyrene, PVC, tropical hardwoods (e.g. lauan), acrylic paint, or products containing VOCs
- Define which props and elements are essential as early as possible to avoid the need for last-minute orders
- Use the ecodesign spreadsheet as a decision-making tool to help you meet the organization's and project's ecoresponsibility targets.

After the Production[1]

- In collaboration with the technical director, document the procedures to follow for future use of elements either by yourself or others (composition of elements, assembly methods, technical specifications)
- Complete the ecodesign spreadsheet and analyze the results
- Use the team sharing session to review what worked well and what needs to be improved next time

On Tour Tips

- Reduce weight: prioritize lighter materials, since heavier materials will generate more CO_2 during transportation
- Reduce the size of transportation vehicles: this is an effective way to generate fewer greenhouse gas emissions during travel. Use modular design and plan for mechanical assembly to optimize space and ensure transportation with the smallest vehicle possible.
- Avoid low-quality materials that could easily be damaged on the road and need to be replaced (especially in the case of tours lasting a year or longer)

Flexible Design

- A creative solution which dramatically reduces the negative impacts of transportation is flexible design, that makes use of elements available everywhere. This gives each show a local flavour specific to the performance venue while reducing the costs and environmental impacts of transportation and alleviating storage constraints.

The Most Together We've Ever Been - Public Recordings (2009)

Lighting design: Paul Chambers
Set Design by: Mauricio Ferlin
© Photo editing: Paul Chambers

While the show was touring, the design changed for each performance, drawing inspiration from local resources to create customized sets.

Useful Resources and Links

Ecodesign spreadsheet

Écothèque (in French only)

1 Important: Other than the first item, these tasks are not covered by collective bargaining agreements between professional associations (e.g., APASQ, ADC) and producers. Separate agreements will therefore be required.

Costume Design

Your artistic contribution is crucial to determining the production's social and environmental footprint.

It's recommended that you adjust the timeline and budget and include a schedule in your contract to recognize the additional work hours needed to adapt your practice based on an ecodesign approach (see the section on ecodesign clauses).

Ecodesign is a team effort; we therefore encourage you to seek the support of other team members when taking on this challenge.

Planning

- Plan to spend more time on research in order to create costumes sourced from **reuse** — see the budget section
- Learning about ecoresponsible costume breakdown techniques (e.g., chalk paints, natural dyes) requires a period of testing and adaptation; set aside time in your schedule to learn how to use these products

From the Start of the Design Stage

- Adapt your designs to suit what is available by visiting and consulting costumers and shops

→ **Tip: It's useful to communicate your needs to costumers, as this may help them improve their inventory in the future**

- Anticipate the repurposing of costumes by finding out how the producer will handle them once the production is over, which will allow you to identify which costumes can be recirculated
- Identify appropriat ecodesign strategies for different costumes

→ **More generic costumes offer greater flexibility; they can easily be found at costumers or thrift stores**

→ **Distinctive costumes require more research to source costumes from reuse; if you cannot find them, prioritize making new ones while promoting craftsmanship and choosing sustainable fabrics**

- If making costumes, order samples of sustainable fabrics, which may be obtained from the following locations: Répertoire des laines du Québec, La Fabrique Éthique, Core Fabrics, BiofabriQ, The Fabric Club, Montloup, Simplifi Fabric, Maiwa, and Pure Linen Envy
- This is the time to try out new techniques and innovative materials, such as plant-based leather (e.g. Pinatex, Flaura)

Once the Design Is Established

- ❍ Prioritize second-hand costumes and fabrics. Here are some resources:

→ **Second-hand fabrics: Espace Fabrik, Core Fabrics.**
→ **Costumers such as Le Grand Costumier and Espace Costume sell surplus fabrics and notions (buttons, lace, string, etc.)**

- ❍ Discuss sustainable or second-hand textile options with the shop; collaborating with experts will allow you to benefit from their knowledge and, in some cases, habits aligned with an ecodesign approach

- ❍ Prioritize choosing materials and clothing that have sustainability certifications, which will guarantee that they are good for the environment and/or workers

→ **The following directories may help you find local, sustainable clothing brands: En Mode Responsable, Répertoire de la mode locale (Montreal)**
→ **Learn to recognize legitimate certifications (see the list of sustainability certifications**

- ❍ If you need to find multiple copies of certain elements, it's not always necessary for the model to be exactly the same. Opt for variants with a similar style that fit the character's personality. This will make it easier to source costumes from reuse. See the example of *Projet Polytechnique*

- ❍ Try new sustainable dye techniques, such as natural dyes

- ❍ Natural dye shops and suppliers: Marie les bains, Maiwa

- ❍ Ensure that the people in charge of costumes during performances have access to the sustainable costume care guide. You should also recognize the value of dressers' expertise, since their knowledge of repairs can help prolong the life of costumes.

After the Production[1]

Anticipate the reuse of costumes that are not kept by the producer.

- ❍ Custom-made elements can be given or sold to the actors

- ❍ Prioritize donating to small local organizations where clothes are more likely to be reused. Consult organizations located near the venue that collect second-hand clothing — see ecosystem mapping

- ❍ The most basic elements can be donated to charities

- ❍ For scraps or clothes that have to be thrown out, you can order a Go Zero box to promote recycling rather than sending them to landfill

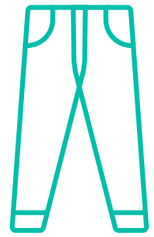
- ❍ Complete the ecodesign spreadsheet and consult the indicators. Use the team sharing session to review what worked well and what needs to be improved next time.

Common Questions

Impact of Transportation: Buy New or Drive Around Visiting Thrift Stores?[2]

Scenario

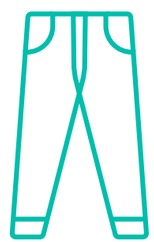
Impact of new jeans
= 20 kg of CO_2e
= 10,000 l of water
= social impacts



NEW JEANS

VS.

Driving around visiting thrift stores (25.5 km)
= 6 kg CO_2e



SECOND-HAND JEANS

1 Important: Other than the first item, these tasks are not covered by collective bargaining agreements between professional associations (e.g., APASQ, ADC) and producers. Separate agreements will therefore be required.

2 6kg for 25.5km https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results
- 20kg: Study on the Life Cycle of a Jean https://levistrauss.com/wp-content/uploads/2015/03/Full-LCA-Results-Deck-FINAL.pdf
- 10 000 L: p 21: https://waterfootprint.org/media/downloads/Report18.pdf

Acrylic finishes	• Colorantic chalk paint and Fusion are sustainable mineral paints that offer an excellent substitute for acrylic paints. They hold well on fabric (natural or synthetic) and leather in particular.
Nylon pantyhose	• Prioritize local or sustainable brands such as Sheertex or Swedish Stocking.
Acid dye	• Acid dye can be used to dye wool, silk, and nylon. It provides vibrant colours without leaving toxic residue in water, since the pigments are entirely absorbed by the fibres. This type of product requires less water, and its compounds are less toxic than those of traditional dyes.
Cotton and natural fibres	• Using certified organic cotton enables you to significantly reduce the impact associated with cultivation of this resource. • Flax, hemp, and ramie are fibres that require less water and pesticides than cotton. • Lyocell (Tencel) is also an ecoresponsible choice, due to its low-impact production process.
Synthetic fibres	• Recycled polyester is made from plastic water bottles. • Econyl is made with recycled nylon, mainly fishing nets recovered from the ocean.

Lighting, Sound, and Video Design

The environmental impact of lighting, sound, and video design is often invisible. However, the electricity supply and choice of electrical equipment are critical issues. A show powered by renewable energy will have a very different impact than one powered by oil. Besides the ethical aspects, choosing to make repairs and use high-quality equipment will influence the need to extract precious metals. Of course, many key decisions related to the impact of lighting, sound, and design are not made by the designers. It is therefore often a good idea to hold discussions with your colleagues.

It's recommended to adjust the timeline and budget and include a schedule in your contract recognizing the additional work hours needed to adapt your practice based on an ecodesign approach (see the section on ecodesign clauses).

Planning in Collaboration with the Technical Director

- Find out the maximum capacity of the performance venue or the available electrical system and account for this limit when making design decisions to avoid the use of generators
- If it's necessary to use a generator, opt for a solar-powered one; some Canadian examples are mentioned in the site-specific project reference sheet

From the Start of the Design Stage

- Prioritize the use of second-hand equipment by drawing inspiration from what is already available. Check out the equipment that already exists in the inventories of the company and cultural spaces with which there is a resource sharing agreement.
- Minimalist strategy: avoid energy-consuming designs, such as cues that may require more than one dimmer rack for lighting. Certain types of equipment are particularly electricity-intensive, such as subwoofers.

Once the Design Is Established

If new equipment must be purchased, prioritize high-quality equipment that can be repaired, which will have a major impact on reducing the consumption of precious metals and extending the life of equipment in the sector

Warm Up (2024)

Designed and directed by: Mykalle Bielinski
© Maxime Côté

Warm Up is a performance that aims to be as ecoresponsible as possible. Artist Mykalle Bielinski produces her own electricity with a bicycle. This powers various elements of the show, including the lighting, sound board, and speaker.

It cleverly plays with the exhaustion associated with pedalling and the ingenuity required to create impressive dramatic effects with minimalist scenography and energy consumption.

After the Production[1]

- Help calculate the environmental impact of the show's electricity consumption.

Using Your Influence by Initiating Team Discussions

To promote the adoption of ecoresponsible actions, it's important to engage in discussion with technical directors and department heads.

Actions during Performances

- Ask if procedures have been established to reduce energy consumption, such as turning off the stage lighting outside of work hours (dimmers, power supply units, etc.)
- Suggest prioritizing repair and maintenance of existing devices to extend the life of electrical and electronic equipment.

Actions after the Production

- Find out about local organizations to which you can donate equipment that is used but still functional. To do this, take part in an ecosystem mapping activity.
- Pay attention to the disposal of materials. For electrical equipment, that includes recycling spotlight bulbs, screens, cables, etc. The Ça va où? app can guide you. Another option is to ask suppliers to take back their equipment.
- Suggest developing relationships with other cultural spaces to pool and share technical equipment for shows
- Emphasize the importance of keeping the inventory up to date in order to promote the reuse of equipment by other designers in the future

1 Important: Some tasks are not covered by collective bargaining agreements between professional associations (e.g., APASQ,ADC) and producers. Separate agreements will therefore be required.

Common Questions

New LEDs vs. Reused Incandescent Bulbs?

It's estimated that switching from incandescent halogen lights to LED products reduces energy costs by at least 80%. However, whether you should make the change depends on the context.

- If your design is based on renewable energy, such as hydroelectricity in Quebec, it's preferable to keep existing equipment until the end of its life, rather than replacing it
- In provinces powered by oil, such as Alberta, prioritize the use of LEDs, Energy Star-certified devices, and minimalist design to reduce your production's environmental footprint

How to Calculate the Impact of Lighting, Sound, and Video

With the Creative Green Tools, it's possible to evaluate the impact of lighting design in CO_2 equivalent.[1]

Tips for Filling Out Creative Green Tools

* The ecodesign spreadsheet has a tab for lighting, sound, and video which is designed for inputting the data needed to calculate their impact. List all the equipment that was used, along with the quantities and wattage. Averages will be created for each type, and the resulting data can be cut-and-pasted into the Creative Green Tools.
* **Important:** to obtain an accurate score, it is essential that you indicate the province where the performance was held, the length of the show, and the number of performances and rehearsals (if applicable) in the Creative Green Tools.
* **Lighting:** avoid excessively detailed calculations. It's recommended that you create an overall average for the length of time that equipment was used during the show and do not fill out the intensity column included in the tools.

Useful Resources and Links

Ecodesign spreadsheet

The Creative Green Tools

Information sheet by ADEME (France) on reducing the environmental impact of sound, video, and lighting (in French only)

Download the Ça va où? mobile app.

1 Sustainable Production Toolkit, Banta, Gaston, Goldmark, Morris v17, p.53

Circus Arts

Ecodesign considerations are different in the circus arts, notably because of safety requirements for acrobatic apparatus and the frequency of touring.

Nevertheless, this is a field where numerous initiatives promoting ecodesign and discussions about environmental issues are taking place. The circus sector has tremendous potential as an agent of ecological transition.

Maintaining and Recovering Equipment

- Promote craftsmanship and invest budget funds in talent development and repairs
- Repurpose acrobatic pulleys for storing lightweight elements; always make sure to carefully identify those whose warranty date has expired
- Repurpose stage fabrics: even if cut into pieces, velvet and other textiles can always be used to dress future shows or conceal small elements

Acrobats' Costumes

- With ecodesign in mind, many circus troupes use natural fibres — examples include Marguerite à bicyclette and Compagnie La Migration.
- **Tip**: To ensure the elasticity and durability of natural fibres, promote craftsmanship and collaborate with shops and artisans who are familiar with these fibres (know how to work with the direction of the warp and weft, work with gussets, add strips of fabric, etc.)
- Acrobatic costumes sourced from **reuse** (e.g., modified versions of old costumes, costumes made from second-hand clothing) are also a possibility; they can be reinforced with patches in frequently rubbed areas to prevent wear and modified to accommodate the range of movement

Touring and Transportation

Did You Know?

The Marguerite à bicyclette troupe is touring Quebec on electric bikes! Another environmentally committed troupe, Acting for Climate – Europe, has been touring internationally by boat since 2024.

Les 3 géants - mirari and Machine de cirque

Costume design by: Angela Rassenti
© Hubert Gaudreau

The acrobats' costumes were upcycled from second-hand clothes and costumes.

Planning

People's well-being and working conditions are an integral part of ecodesign.

- Ensure a balanced touring schedule by including breaks and physical rest days for performers and crew members between performances and travel
- Encourage a healthy balance between touring and family life
- Touring by bike: it's essential to allow time for rest periods based on the distances travelled
- Touring in electric vehicles: plan for charging bikes or other vehicles in the budget and schedule—before, during, or after travel

Thinking Outside the Box

It's not always possible to find second-hand or certified acrobatic equipment. On the other hand, the circus sector has pushed the boundaries of creativity in response to the climate crisis. Here is an inspiring example:

écH2osystème: du fleuve à la scène

Designed and directed by Geneviève Dupéré
© Gordon Walsh

écH2osystème is a documentary research-creation project that explores the complexity of the St. Lawrence River's ecosystem by combining marine science, socioecological issues, and arts to raise public awareness. Beyond the project's commitment to ecodesign, the performance itself is aligned with the cultural ecological transition.

Useful Resources and Links

See the related safety questions in the section on health and safety

Find out if Écoscéno's ecodesign training workshop for the circus sector is being offered soon

Site-specific and Outdoor Projects

Site-specific projects offer excellent potential for ecodesign, since they involve adapting to performance sites and sometimes selecting sites that will enhance the artistic proposition.

This facilitates collaboration with the local ecosystem and community. Site-specific works may even generate positive impacts through ecoeffectiveness or a regenerative approach.

Collaborating with the Community

Collaborating with the community enhances people's sense of connection to the project. It also provides opportunities for meeting and dialogue, which are helpful for raising awareness. After an initial discussion to identify local resources and infrastructure, you can undertake collaboration on concrete actions such as promoting local materials or joint ecodesign initiatives. It may also be possible to hire local teams to handle artistic or technical aspects of the project, which will help reduce long-distance travel.

Example
Collaborating with the community

The band Qualité Motel embarked on an adventure with *La Virée du Saint-Laurent*, a tour in which they travelled 520 nautical miles by boat. Over the course of three weeks, they visited ten towns in the Bas-Saint-Laurent, Gaspé Peninsula, and Côte-Nord regions.

Tips

* In your grant application, include time devoted to making contact with the community before performing the work.
* When you initiate dialogue with a community, make sure it's a two-way relationship rather than one-way communication. Here's an example:

"Hi, we are [name of company] and we're writing to you today because we're planning to stage a show in your area. Out of respect for the issues that concern you, we would like to take some time to talk with you about our shared values and explore possibilities for collaboration."

L'électricité
Electricity

The most effective way of reducing a production's footprint associated with electricity is to prioritize connecting to municipal grids in areas served by hydroelectricity.

Challenges to expect:

- Approval for a municipal connection may take up to two months, depending on the city.
- Municipalities set a limit on electricity consumption. It is important to adapt your production to comply with the limit and avoid consumption peaks so that you will not have to use a generator.

If a municipal connection is not possible, prioritize the use of 100% rechargeable or sustainable generators.

Did You Know?

Solar-powered generators now exist in Canada. The Centrale des artistes in Laval recommends them for its events, and lighting designer Ian Garrett also used them for Vox:Lumen, a project by the contemporary dance company Zata Omm.

Protecting against Bad Weather

Protecting equipment against bad weather will ensure it can be reused over the long term and conserve materials.

In light of climate change and heat waves, it is also important to consider the well-being of the audience, artists, and technical crew. Make sure there are shaded and cool areas available.

Tips

* Prioritize the use of tarps rather than garbage bags to protect equipment
* Select waterproof equipment, such as speakers with rain covers
* Set aside time for equipment to dry, just like when camping
* Some plastics emit VOCs during hot weather, while dark colours absorb heat. Replace plastics with certified fabrics or avoid using these materials by opting for minimalist scenography.

The Stages of Ecodesign for Site-Specific Works

Planning

- ❍ Plan for and set aside time for establishing a connection with the community
- ❍ Find out about the existing infrastructure at the site (inventory, furniture, etc.) to minimize the material you need to transport
- ❍ Ask about the waste sorting methods used at the site (recycling, composting, etc.)
- ❍ Share your ecoresponsibility values in your show rider
- ❍ Contact the site to arrange a connection to the municipal electrical grid

From the Start of the Design Stage

- ❍ When making design decisions, take inspiration from materials that are readily available in large quantities at the site; this approach requires adopting a flexible design strategy.

Once the Design Is Established

- ❍ Prioritize rental or **resource sharing**
- ❍ Source materials from local ecoresponsible suppliers — see CQEER's directory of suppliers (in French only), which allows you to search by region
- ❍ Anticipate the repurposing of set design elements (mechanical assembly, standardization, etc.)

After the Production

- ❍ Set aside time to repair or recirculate scenic elements
- ❍ Use the team sharing session to review what worked well and what needs to be improved next time

Pay attention to the ecosystems you visit

- ❍ Ensure that no toxic products or the like are disposed of in the sewer system or the ground
- ❍ Leave the site in better condition than when you arrived. Use the Leave No Trace principles as inspiration
- ❍ Ensure that everything is composted or recycled on site and take away anything that cannot be handled at the location

Useful Resources and Links

Reference sheet on tour transportation

Leave No Trace principles

CQEER directory of suppliers (in French only) — search by region in the left-hand column

De ville en fôret, (in French only): educational organization focusing on how to visit natural spaces responsibly

Touring

Works on Tour

It’s not always possible to know whether a work will tour ahead of time. When creating it, it is important to plan for this possibility so that teams can be informed. Touring has a significant influence on how a work is created in terms of ecodesign..

→ To guide your ecodesign choices, refer to the decision tree

Presentation and Relationship with Presenters

It’s important to inform presenters about your ecoresponsible initiatives. The sustainability of a tour and the impact of transportation will be greatly improved if the presentation sites coordinate their efforts and commit to collaborating on achieving your objectives.

Rethinking how you tour can lead to new opportunities based on an ecoresponsible approach. Discuss the possibility of extending your stay with presenters; this could lead to working residencies, workshops with the community, talks, or more interaction with the audience, creating valuable connections with the local population.

Adjust Your Show Rider

Here are a few suggestions to include in your rider to promote your ecoresponsibility commitment to presenters and venues while encouraging them to improve their practices.

General commitment

- Introduce your values and socioecological commitment

Waste reduction

- Ban water bottles and other disposable items; verify access to drinking water
- Request bins for sorting waste (trash, recycling, composting)
- Request that Go Zero boxes for recycling adhesive tape and other single-use materials be available during tear-down

Sustainable food

- Prioritize local and organic foods and drinks without packaging
- Request vegetarian/vegan options

Resources and transportation

- Request an inventory of available materials
- Incorporate carbon offsetting in the contract
- Check whether it is possible to be compensated for a portion of the expenses for travel in electric vehicles

Costumes and care

- Provide the wardrobe department with access to the sustainable costume care guide
- Avoid dry cleaning
- Recognize the value of dressers’ expertise, since their knowledge of repairs can help prolong the life of costumes

Transportation

Transportation while touring is a major source of pollution. This is mainly due to travelling by plane when moving materials and cultural workers. There are some actions you can take to better anticipate and plan for greenhouse gas emissions associated with transportation.

- Plan your itinerary to minimize the distances travelled, thereby reducing greenhouse gas emissions
- Prioritize trains for long-distance travel and rent electric vehicles
- Plan your itinerary based on sea freight to avoid shipping by air, which requires allowing around six weeks for shipping before and after the tour
- Prioritize trucks that drive further at a slower speed (100 km/h rather than 120 km/h)
- Allow time for charging electric vehicles in the schedule
- If air travel cannot be avoided, limit the transportation of materials and prioritize rental at the destination instead
- For procurement or construction in Europe, consult Écothèque’s directory (in French only) to find local ecodesign suppliers

Symphony of hearts
RD Créations (2024)

Directed by: Rhodnie Désir
© Kevin Calixte

Rhodnie Désir adopted this approach for the show *Symphony of hearts* while it was touring in Switzerland. The set for Europe was made using second-hand materials from Materiuum. In total, 96.4%[1] of the set elements were sourced from reuse and obtained from a Swiss recycling centre.

Cher Léo

Designed and made by: Musée de la Gaspésie
© Roger St-Laurent and Musée de la Gaspésie

Display furniture that also serves as road case

Road Cases

Try to source road cases from reuse in advance — don't hesitate to paint them and put your logo on them if necessary!

- Choose high-quality casters that can be detached from their mount
- Keep the mount and replace only the wheel in the case of wear or excess weight. To avoid excess weight, you should consider the dynamic weight.
- Allow time to remove hair and to oil casters after shows
- Set aside budget funds and time for road case repairs and maintenance
- Donate old road cases to the community—they can be used for a long time
- Prioritize lightweight, soft, and modular materials (e.g., inflatables, stage fabrics) to reduce the footprint and weight during transportation
- Incorporate road cases into your design!

First Reduce, Then Offset

After you have reduced and optimized transportation, the remaining greenhouse gas emissions can be offset through a recognized program. This step is a last resort and requires advance planning, with emissions tracked throughout the tour.

Choose a trusted organization (e.g., Carbone boréal in Quebec) or link offsetting to the work's theme (e.g., choosing an organization related to water for *Holoscenes*, an aquatic installation which was staged at FTA).

Accommodation

- → Prioritize accommodation that is committed to ecoresponsibility
- → Decline daily room cleaning and towel replacement
- → Choose accommodation near the performance venue to reduce travel
- → Avoid single-use items and bring your own products (soap, shampoo, etc.).

Useful Resources and Links

Creative Green Tools for calculating the impact of transportation and accommodation while touring

Certification by Green Key Global, an environmental label that certifies tourist accommodations and restaurants which meet stringent social and environmental management criteria

Carbone boréal

Go Zero

1 Calculation of the percentage proportional to the weight of the elements.

Perishables and single-use materials

Here are a few rules to follow in order to reduce the footprint associated with food products and single-use materials.

Whether it's a touring show, food served in the dressing room, or a catering service, responsible food management is an effective tool for reducing the environmental impact of your productions.

There are many options available to avoid waste and wastefulness.

Food

Food during a tour

- ❍ Add a request for zero-waste catering options to the show rider
- ❍ Use reusable containers and utensils

→ Recommend that team members bring their own
→ Ensure there is a means of washing them after use

- ❍ Opt for nearby restaurants that use local, organic, and fair-trade products
- ❍ Prioritize cooking meals rather than using ready-made meals or processed foods — don't forget to bring a cooler
- ❍ Remember to bring a compost container to be kept in the dressing room freezer
- ❍ For snacks, prioritize shareable portions to reduce packaging
- ❍ Make sure you donate any leftover foodstuffs

Tips

* Another good option is to pay your teams to cook while on tour instead of spending money on fast food and junk food.

This solution is particularly useful for tours outside of major cities.

Single-Use Materials and Products

Gel Filters

Gel filters and related waste are recyclable. Consider placing a recycling bin next to the table used for assembling and disassembling them.

Adhesive Tape

Use chalk pens to indicate the stage positions of lighting, video, and sound equipment until they have been finalized in the rehearsals and level adjustment process. Avoid the use of PVC tape (electrical tape).

Explore alternative methods of identifying electrical plugs and sound and video equipment (erasable pencils, modular identification, velcro, etc.).

The use of adhesive tape can be reduced by using tie lines or BongoTies. When its use cannot be avoided (e.g., when securing dance mats), you can recycle adhesive tape via the organization Go Zero.

Zip ties

There are reusable zip ties available!

→ Explore the possibility of using cotton tie lines, reusable velcro, or elastic anchor straps (BongoTies)
→ Reuse zip ties as much as possible; it is sometimes possible to remove commonly used models with a flat-head screwdriver
→ Create an inventory to cover the needs of multiple productions

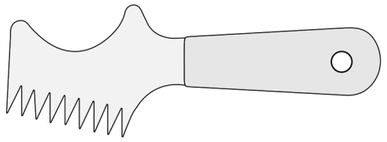
If you have to use conventional zip ties, recycle them with Go Zero

Batteries

- Using rechargeable batteries for microphones and other electronic equipment is much less harmful to the environment
- At the end of their life, bring them to an ecocentre or an organization that collects used batteries (see the Ça va où ? app)
- Note: rechargeable batteries need to be charged occasionally during the off season (every two to three months or so)

Paint and Brushes

- Avoid cleaning paint brushes in running water: most water filtration systems do not filter soluble pollutants
- Use a brush comb and roller cleaner to recover as much paint as possible before cleaning your painting implements; this tool helps avoid waste and will soon help you save on paint costs



- Avoid spray cans of paint—prioritize the use of paint guns and sprayers whenever possible, as they produce much less waste and can be used with sustainable paints, such as diluted chalk paint
- Prioritize high-quality brushes, as they can be used more times before they are discarded. Here is a recipe for keeping your brushes in good condition.
- Bring leftover paint to the nearest paint recycling drop-off point

Did You Know?

Originally developed for movies, Rolling Green's best practices guide recommends incorporating ecoresponsible behaviours and messages on screen with the aim of raising audience awareness.

For example, a movie might show a plant-based meal, reusable bottles and bags, or second-hand goods being purchased. This approach can easily be applied to the performing arts, which also reflect our culture and society.

Useful Resources and Links

Food containers (document created by CQEER) (in French only)

The Ça va où? app shows where to dispose of each type of material based on your region. A Greater Toronto Area-based one exists as well: https://wheredoesitgo.ca/

Directory of ecoresponsible suppliers (in French only)

Go Zero

Worker health and Safety

Mental Health

Driven by economic imperatives, the pace of our day-to-day lives is becoming increasingly hectic. The performing arts sector is no exception to the demand for greater speed, which is often disconnected from real needs, leading to an imbalance. We have to slow down, which means rethinking our ways of working so they are not harmful to our health or our environment. That involves respecting people's personal rhythms and prioritizing quality over quantity while creating people-friendly working conditions.

It is important to consider the impact of the environmental crisis on mental health. More and more artists are experiencing **ecoanxiety** and ecolucidity. Instead of downplaying them, these feelings could be viewed as drivers of change—they could encourage the transformation of our lifestyles and modes of production toward a model in greater harmony with the living world. Many initiatives are being undertaken to turn this sense of anxiety into positive action.

Artists are using theatre, dance, music, and visual arts to express their fears while also raising public awareness. These artistic efforts are leading to collective recognition of these issues and providing opportunities for dialogue and reflection. In this context, art is a tool of transformation and a vehicle of hope, channeling ecoanxiety into a source of powerful, socially conscious creativity.

Danser avec le climat — La Manufacture (2022)

Designed and directed by : Louise Bentkowski
Haute école des arts de la scène – Lausanne (Suisse)
© Jeanne Kleinman

Danser avec le climat is a choreographic performance conceived as an evolving work that interacts directly with the climate and environment. This site-specific piece is meant to be performed outdoors, in a natural setting, to create a resonance between the body's movements and the surrounding elements. It is based on dialogue between art, science, and climate.

The following are some suggestions to help you free yourself from the feeling of powerlessness associated with ecoanxiety.

Be imperfect

- It's okay to be imperfect as long as you are engaged in action.
- Accept your mistakes.
- Learn from your mistakes and share them with others.

Celebrate your successes

- Each step and each stage matter.
- Value what you learn through committing to the process.

Don't try to do it all on your own

- Ask for help.
- Find allies (discussion groups, book clubs, etc.).
- Share the problems you face in order to get other perspectives on them.
- Spread the burden of responsibility.

Take a break

- Taking a break to recharge your batteries is also an important part of your activities.
- It is essential to maintain a high energy level so that you can keep going over the long term.
- Breaks also allow you to step back and take a fresh look at the situation.

Be loving

- Remind yourself of what drives your actions.
- Why and for whom do you want to do things differently?

Be proud of embodying change

- Become an agent of change.
- Enthusiasm for change leads to engagement and action.
- Don't underestimate the domino effect of your actions.
- Be patient and open with people who are not engaged in the same process as you.

Think about the future while remaining focused on the present

- Hope is an important driver.
- It is important to live in the here and now.

Psychological Support Resources

Mental Health and Climate Change Alliance: Professional associations bringing together specialists dedicated to understanding and addressing the mental health implications of climate change.

Physical Health

Ecoresponsibility must never jeopardize the health and safety of cultural workers under any circumstances. For detailed information on worker health and safety, refer to the Canadian Centre for Occupational Health and Safety's Working in Live Performance Theatre fact sheet.

Recommendations

- Repurpose rigging equipment in contexts that do not affect people's safety (e.g., as props or storage); clearly identify carabiners and other hazardous elements for performers
- Clearly identify the locations of hidden screws and the like (e.g., using templates or assembly drawings) to avoid risks during tear-down
- VOCs in finishing products have an impact on workers' health—look for products that come with sustainability certifications and prioritize their use to reduce exposure to VOCs and endocrine disruptors.
- Recycle gloves and protective masks using Go Zero boxes.

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Appendix

Sustainability Certifications

Certification is a process whereby a third party confirms that a product or service meets certain specifications. A product may cause social and environmental impacts throughout its life—from design through production, distribution, use, and final disposal.

Be on the alert for greenwashing: there are many in-house logos resembling certifications which are issued by suppliers pretending to be more virtuous than they actually are.

With this in mind, check logos online to see if they are official. Some in-house logos only appear on the products of one brand and do not indicate that they are registered, incorporated, certified, etc.

"Green" designations that do not indicate the list of ingredients are not reliable either. In the case of paints, "low-VOC" claims must be accompanied by the number of grams per litre and a calculation indicating the VOC level in the pigments.

You can also check the list of product ingredients and EPD (environmental product declaration) sheet by consulting the directory of ecolabels.

Below you will find a non-definitive selection of useful certifications for ecodesign in the performing arts.

General Certifications

EcoLogo

Indicates that a product or service has been rigorously evaluated and certified by a third party to ensure it has a reduced environmental impact throughout its life cycle.

CARB II ULEF

CARB II ULEF Different abbreviations : CARB,NAF and ULEF Certifies that composite wood products respect strict norms in terms of sustainability, the reduction of emissions and the use of responsible resources.

Wood

Forest Stewardship Council (FSC)

Guarantees that wood and forest products come from responsibly managed forests that meet strict environmental, social, and economic criteria.

Programme for the Endorsement of Forest Certification (PEFC standard)

Ensures that forest products come from sustainably managed forests in accordance with environmental, social, and economic standards recognized by an independent third party.

Aluminum

Aluminium Stewardship Initiative (ASI)

Promotes and verifies responsible production, use, and recycling of aluminum that meets environmental, social, and governance criteria throughout the value chain.

VOC-Free or Non-Toxic Products

GREENGUARD & GREENGUARD Children and Schools

Ensures that products are rigorously tested and certified for low chemical emissions, thereby contributing to improved indoor air quality.

Cradle to Cradle®

Evaluates products based on strict criteria related to material health, material reuse, renewable energy and carbon management, water stewardship, and social fairness, thereby promoting a circular, sustainable economy.

Textiles

Global Organic Textile Standard

Guarantees that organic textiles are produced in an environmentally and socially responsible manner throughout the value chain, from sourcing organic fibres to the final product.

Organic Content Standard

Verifies the presence and quantity of organic materials in a textile product, thereby ensuring the traceability and integrity of organic fibres.

USDA Organic

Guarantees that agricultural products have been produced using approved organic methods, which exclude the use of most pesticides and synthetic fertilizers and promote the conservation of natural resources.

Oeko Tex

Ensures that textile products have been tested for harmful substances and do not pose a risk to human health.

We Are Here

ACT represents, defends and supports its members

ACT

ASSOCIATION DES COMPAGNIES DE THÉÂTRE

Conseil québécois des événements écoresponsables

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SERVICES OFFERED BY CQEER

- Support for sustainable practices
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- Sustainable Stage accreditation

https://evenementecoresponsable.com/

info@cqeer.com

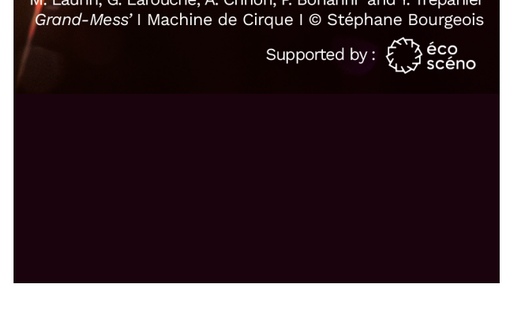
CQT CONSEIL QUÉBÉCOIS DU THÉÂTRE

To unite, advocate for, and promote Quebec theatre !

THE STRENGTH OF CIRCUS
THE COMMITMENT OF A COMMUNITY
SO THE SHOW CAN GO ON

en piste

REGROUPEMENT NATIONAL DES ARTS DU CIRQUE
NATIONAL CIRCUS ARTS ALLIANCE



M. Laurin, G. Larouche, A. Crinon, P. Bonanni and Y. Trépanier *Grand-Mess'* I Machine de Cirque I © Stéphane Bourgeois

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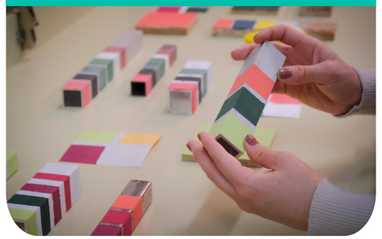

TOOLKIT

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1st carbon footprint

1st classification according to the BNQ Standard, supported by CQEER

2018

2019

Creation of the Environmental Sustainability Fund

Go Zero Programme Membership

Socio-econimic Commitment Award, by Vivats

2021

F T A

Offsetting emissions generated by transport (artist + team)

Festivalgoers' Sustainability Guide

2022

2023

Environmental fee per ticket bought

100 % vegetarian food offer

Green Brigade at outdoor events

Certificate *Here we recycle +* from RECYC-QUÉBEC

2024

2025

Practical Ecodesign guide For the Performing Arts

Consult the Festivalgoers' Sustainability Guide

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