

Bringing sound into urban public place design



7.

Ideas

on how to bring sound into
the conversation about public
place design.

Space vs. place

For many who study and practice urban design, a “space”, a location with area and volume, becomes a “place” once people attach meaning and value to it.

public place:

A physical location

Established patterns of human relationship





Illustration:
©Christine Kerrigan

placemaking: a process by which a physical environment is made meaningful or by which a public space becomes a place.

PLACEMAKING

- employs a more inclusive design process where citizens play an active role in the design of a place.
- human activity is encouraged, providing formal and informal places to meet and interact, and places to sit and listen.

CITYMAKING

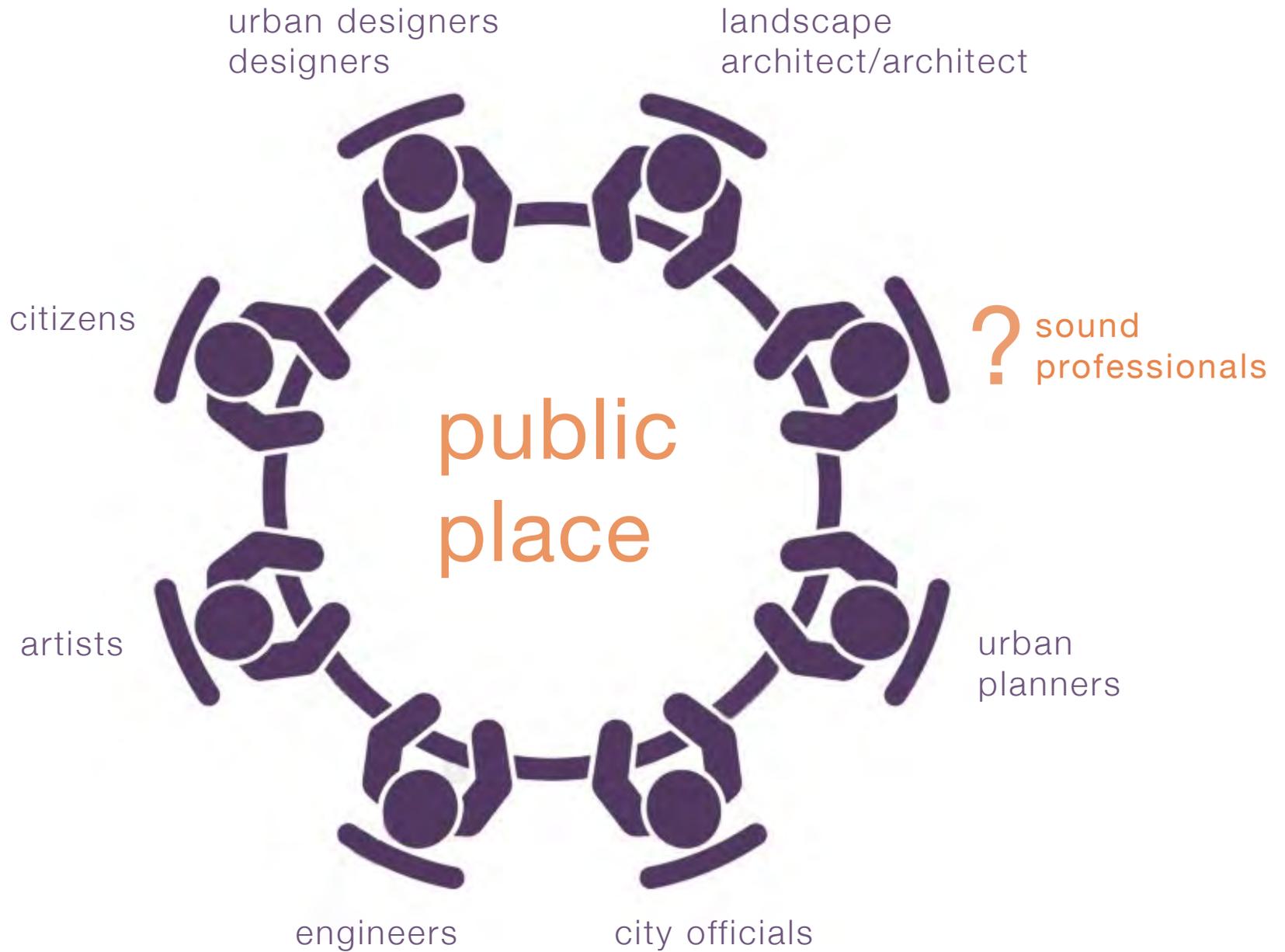
hierarchical



collaborative



PROJECT TEAM



Why?

What needs to change



1

Reframe

how we speak about sound.





liability



Photo: ©Christine Kerrigan



opportunity



Photo: ©Christine Kerrigan

design tool kit:



- plants
- built environment
- materials
- color
- sound — [sources
volume
reverberation
- visuals
- objects
- lighting
- textures
- smells
- activities

INDEX

- Public health concern
- Stakeholder negotiation
- Environmental pollutant
- Planning resource

Approaches to sound management:



ENVIRONMENTAL
NOISE MANAGEMENT



SOUNDSCAPE

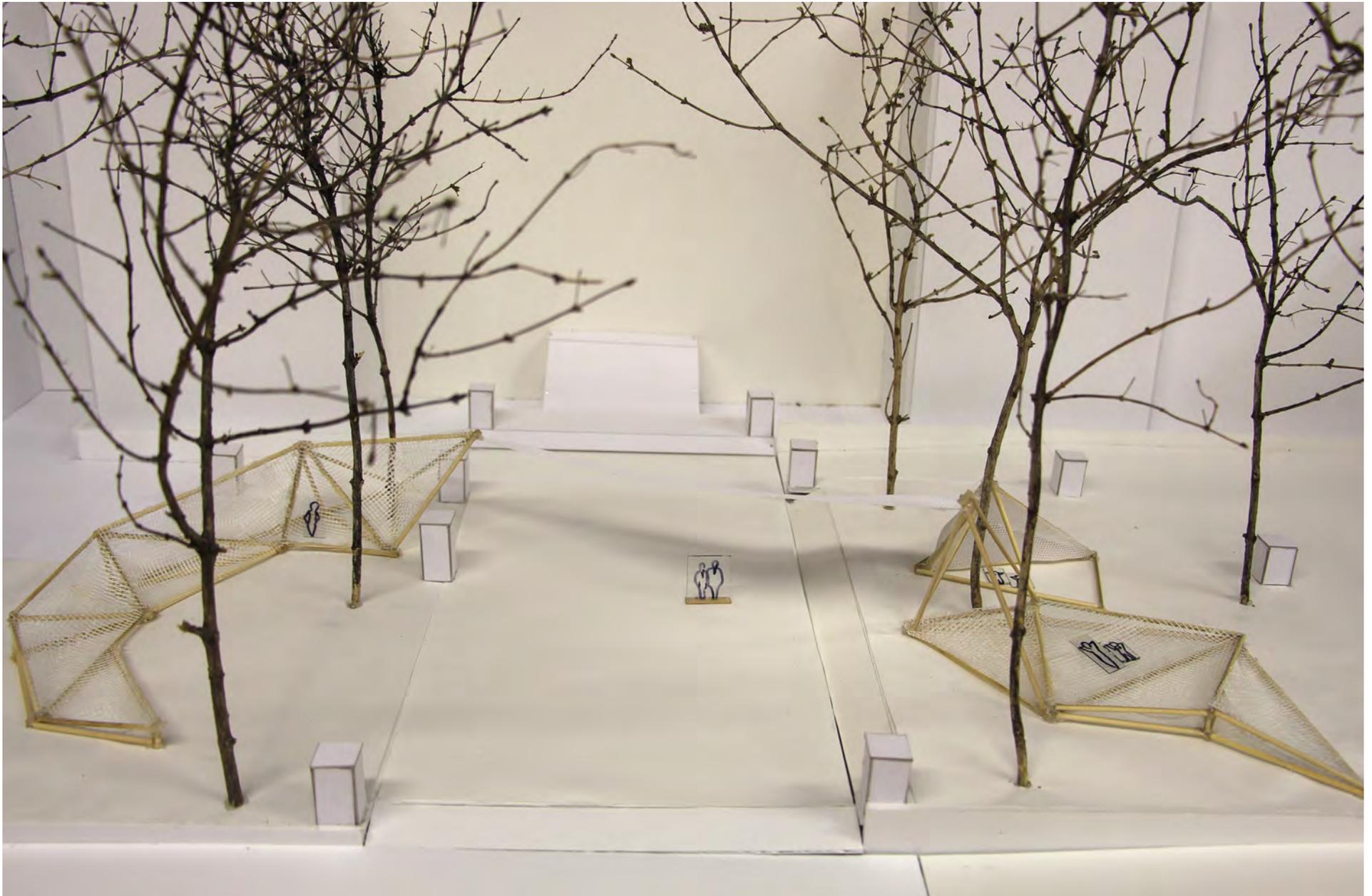


Reexamine

the tools we use to describe public
spaces and places.

3D MODELS

Haute Saison
Place Pasteur, UQÀM
2014-2015



RENDERINGS

Haute Saison
Place Pasteur, UQAM
2014-2015



©Haute Saison

PHOTOGRAPHY

[showcase]

Haute Saison
Place Pasteur, UQAM
2014-2015



Photo: ©Nathalie St-Pierre

PHOTOGRAPHY

[document]

Haute Saison
Place Pasteur, UQAM
2014-2015



PHOTOGRAPHY

[user experience]

Haute Saison
Place Pasteur, UQAM
2014-2015



ILLUSTRATION



How many of these
visual tools depict the
sound environment?

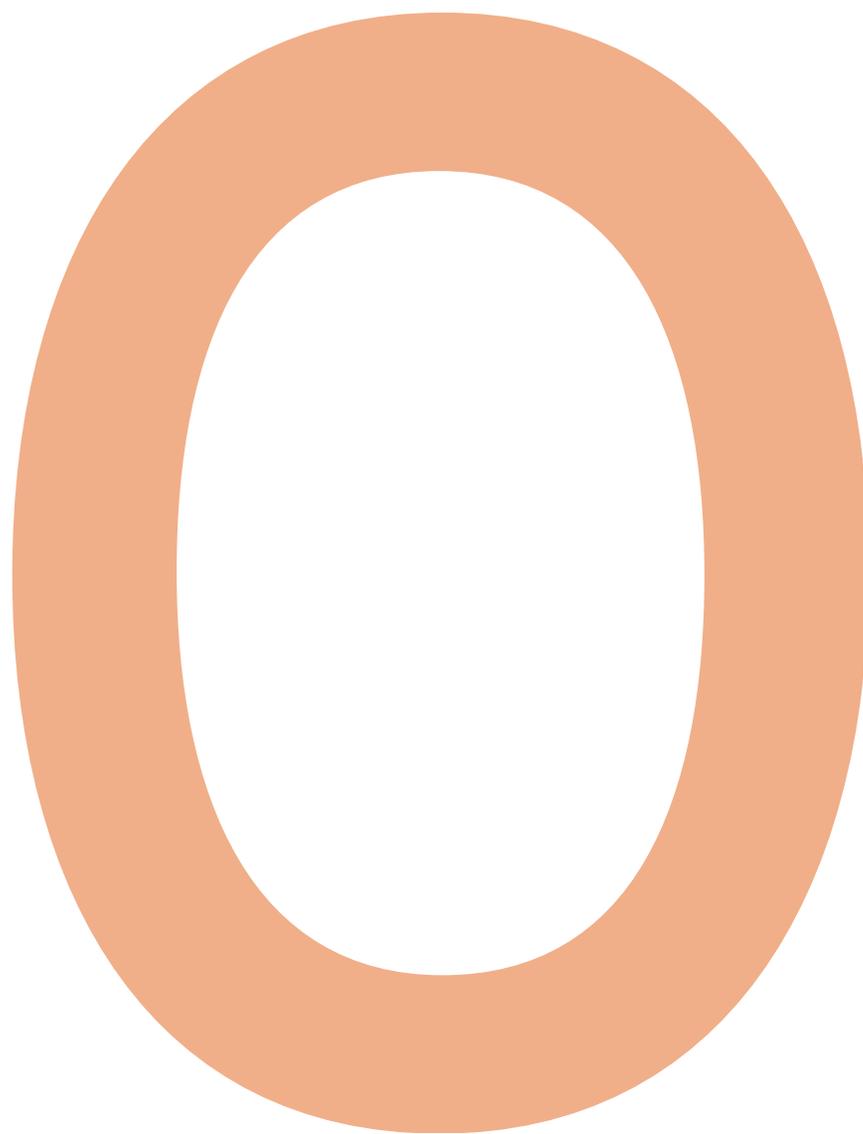




Illustration:
©Christine Kerrigan

call to action:

Sound professionals, please share your ideas with designers on how to integrate sound into depictions of public places.

A large, light purple, stylized number '3' is positioned on the right side of the image, partially overlapping the text.

Educate

citymakers about sound.

A small, light purple circle is located in the bottom right corner of the image.

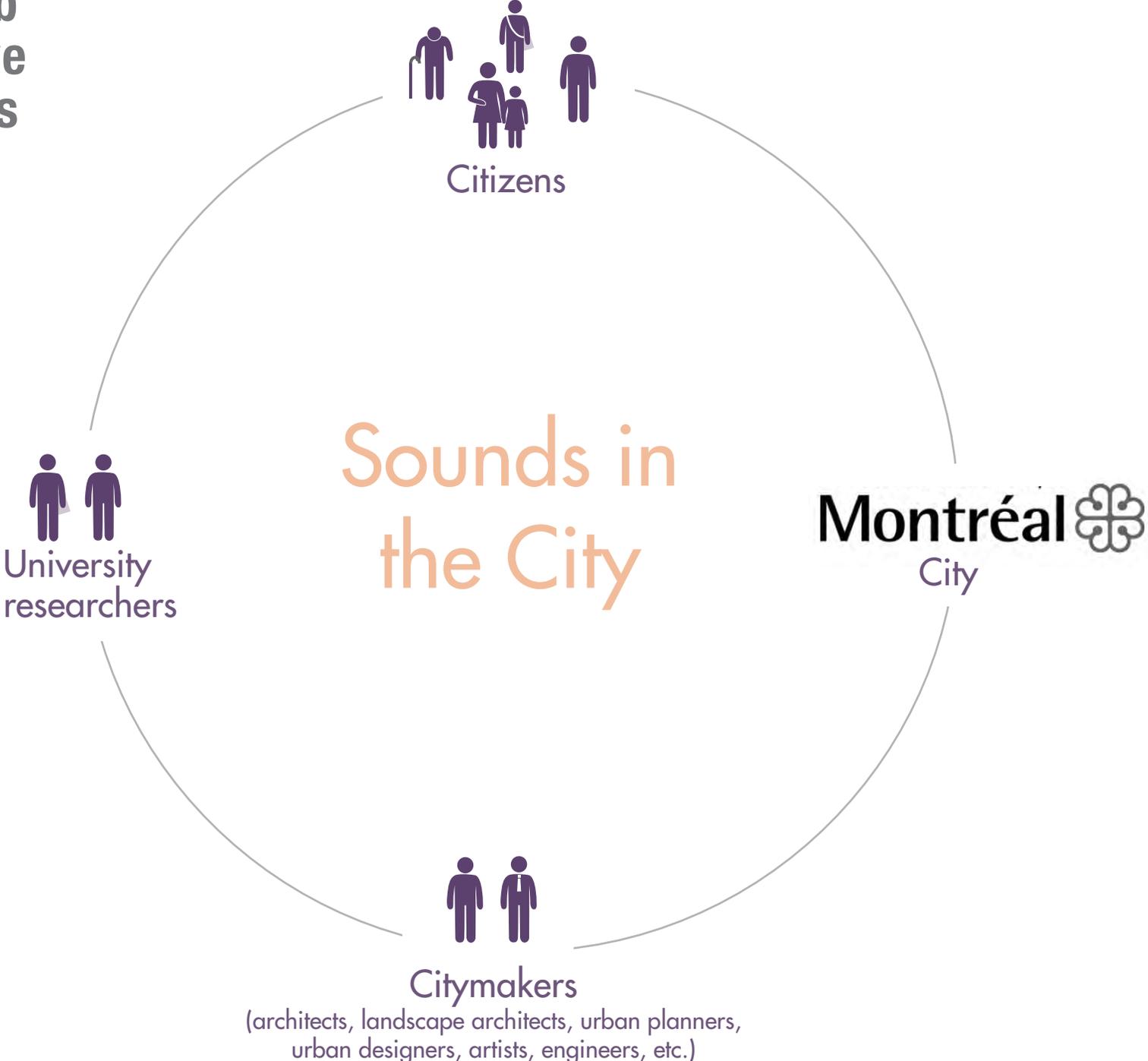
SOUNDS IN THE CITY



Christine Kerrigan
Sounds in the City
CIRMMT member



Living Lab
to improve
how cities
sound.



Citizens

Sounds in the City

University
researchers

Montréal City



Citymakers

(architects, landscape architects, urban planners,
urban designers, artists, engineers, etc.)

TEAM



Catherine Guastavino
Associate professor, McGill University
Faculty of Arts & Schulich School of Music



Daniel Steele
Soundscape researcher
PHD, McGill University



Christine Kerrigan
Multidisciplinary designer
MA, environments design, UQAM



Romain Dumoulin
Acoustics consultant
Dumoulin Acoustique



Annelies Bockstael
Assistant professor, School of Speech
Language Pathology and Audiology,
University of Montréal



Cynthia Tarlao
PHD student, sound perception
McGill University



Christopher Trudeau
Masters student, Information Studies,
McGill University



Florian Grond
Post-doctoral researcher
McGill University



Edda Bild
Soundscape researcher
University of Amsterdam



Mariana Mejía Ahrens
Masters student, Information Studies
McGill University



Sarah Bogdanovitch
Research Assistant, Comm. Sciences
McGill University



Valérian Fraisse
Masters student, Acoustics
IRCAM

WE DO:

- research
- case studies
- workshops & events
- knowledge mobilization
- knowledge co-creation



education

WORKSHOPS

EXPERIENTIAL LEARNING



- presentations
- soundwalks
- co-creation exercises
- lab demos

SOUNDWALKS



Photo: ©Cynthia Tarlao



Photo: ©Cynthia Tarlao

CO-CREATION



Photo: ©Cynthia Tarlao

LAB DEMOS





Cultivate

long-term relationships with
city officials and practitioners.



PEDESTRIAN
ZONE

DISTRICT &
PROVINCIAL
PROJECTS

2016

2017

2018

2019

2019

2015

POCKET PARK

2018

PUBLIC PLACE

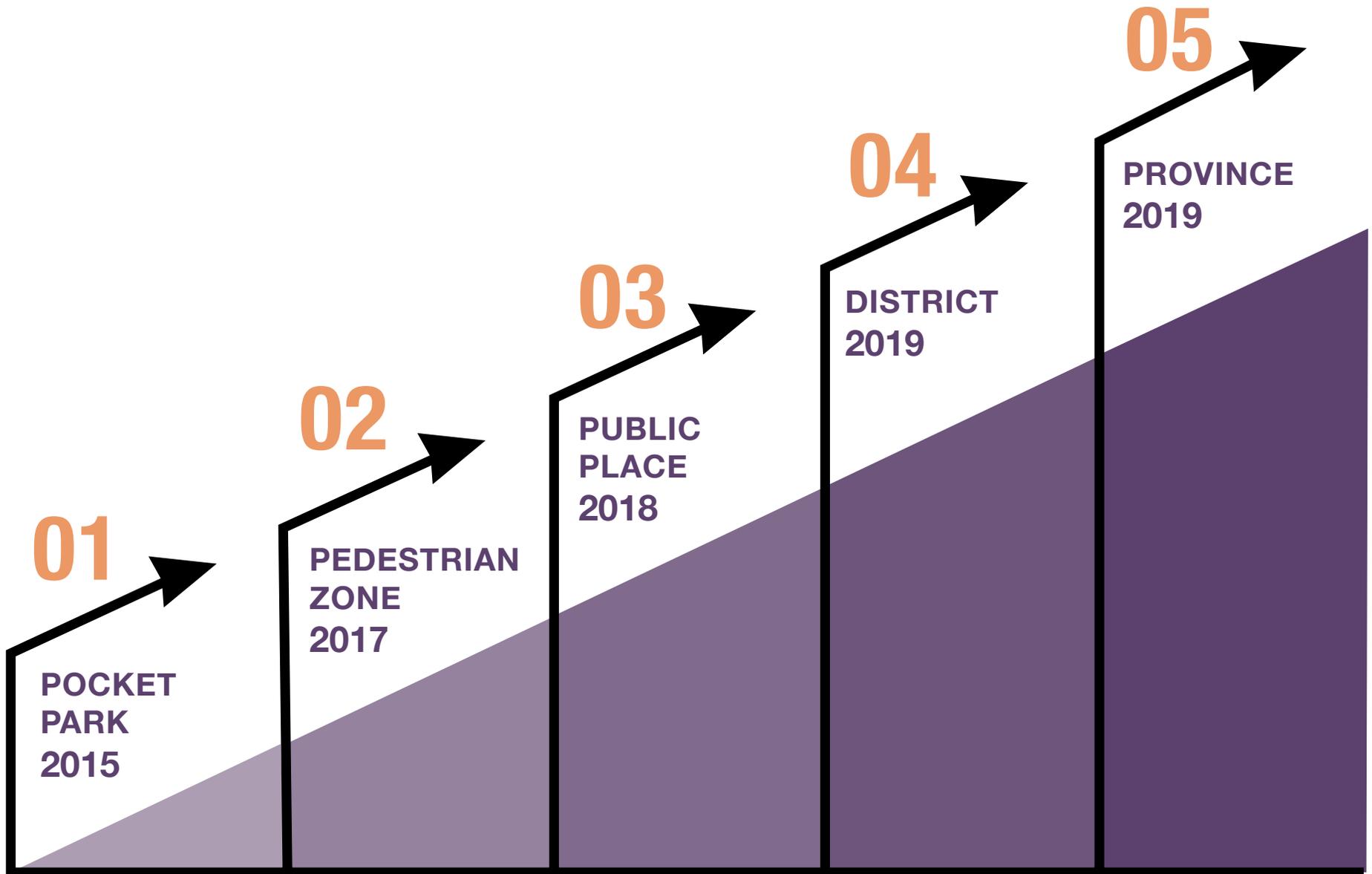


WORKSHOPS



CASE STUDIES

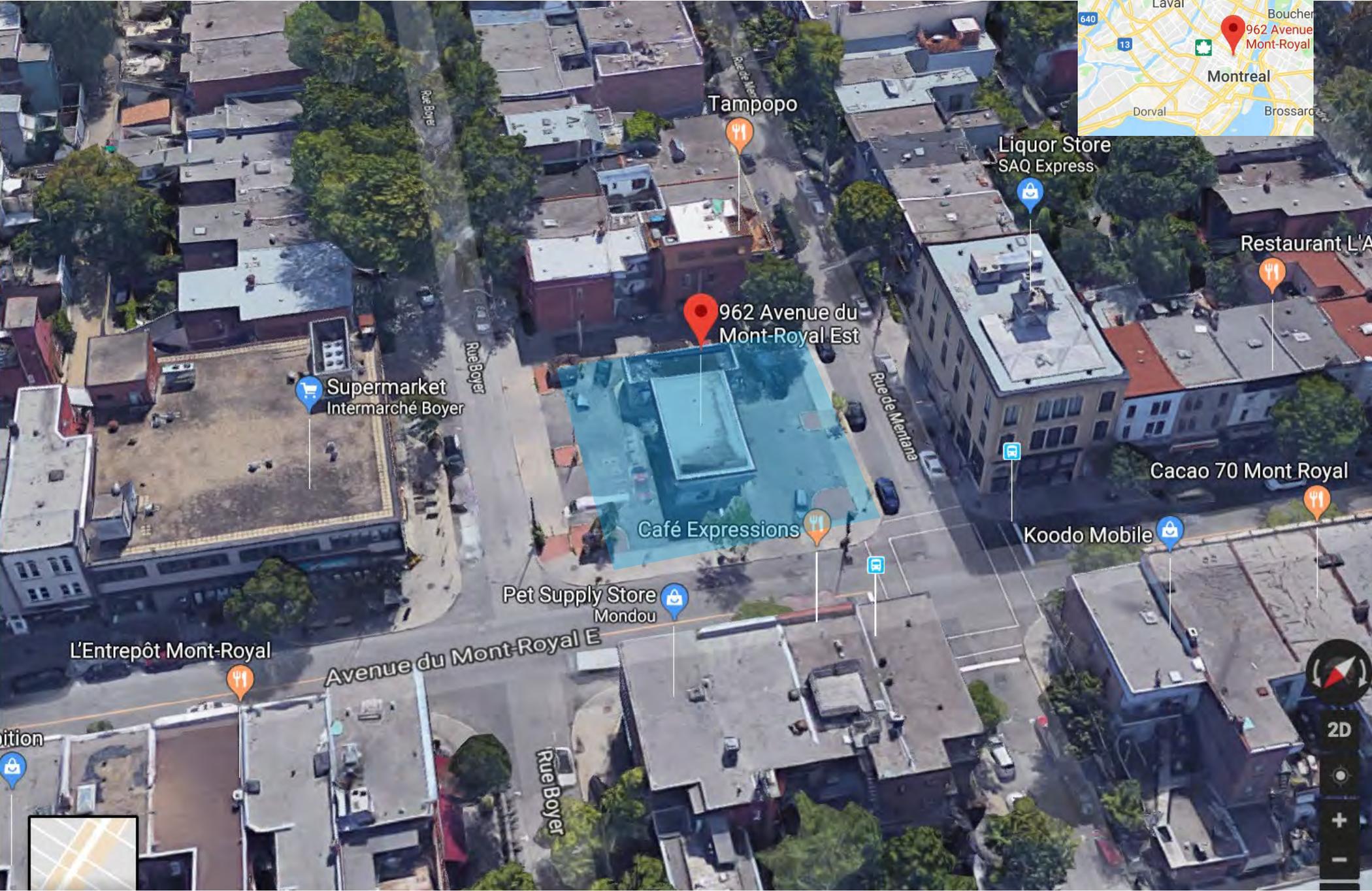
SCALE





Public Place

962 MONT ROYAL



962 MONT ROYAL



PUBLIC CONSULTATION

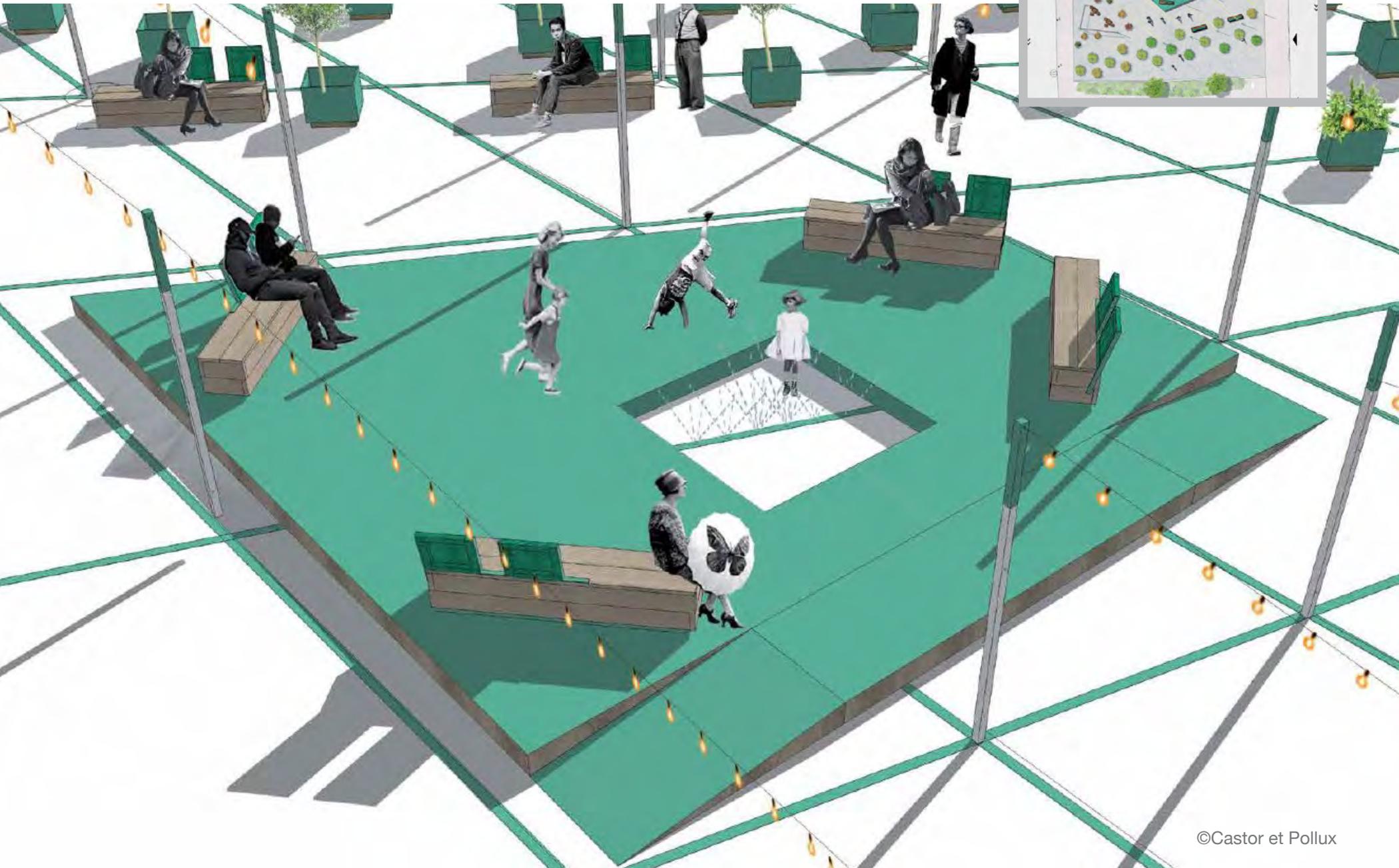


**PUBLIC
CONSULTATION**



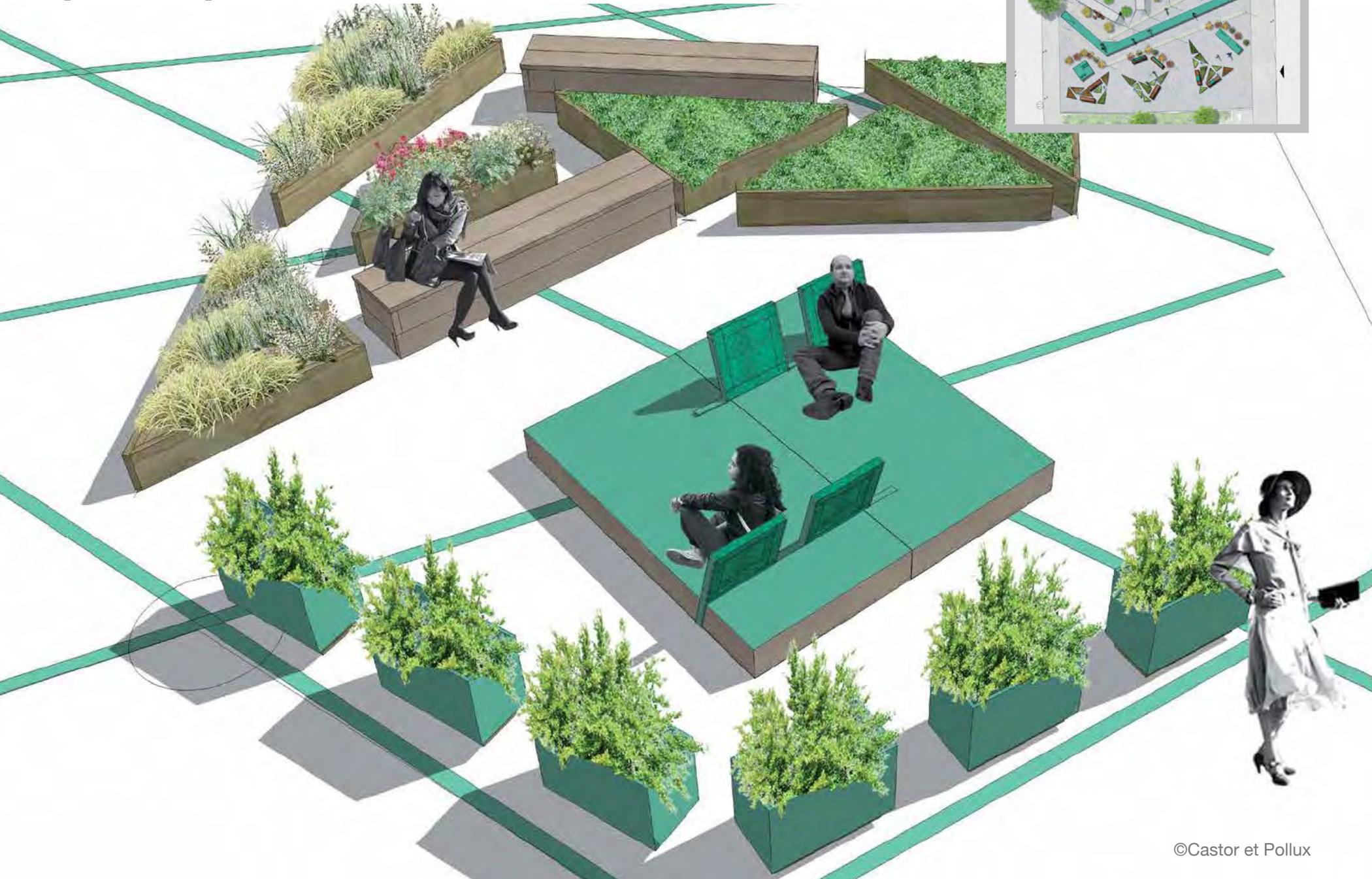
DESIGN PROTOTYPES

[DESIGN 1]



DESIGN PROTOTYPES

[DESIGN 2]



DESIGN PROTOTYPES

[DESIGN 3]



SOUND RECORDINGS



HUMAN PERCEPTION

Please answer each question to the best of your ability. There is no right or wrong answer.

What brings you here today?	scenic place to sit & eat lunch
How would you describe the present ambiance of this space?	Pleasantly detached, minus the construction in the back

Please list below the sounds/noises that you are hearing around you into the column that applies.

Pleasant	Unpleasant	Neutral
<ul style="list-style-type: none"> blowing leaves chatter 	<ul style="list-style-type: none"> construction (though I'm from NYC so I'm used to it) 	<ul style="list-style-type: none"> Fans

The soundscape is the collection of all the sounds and noises that you hear around you.

For each question below, circle one response:	Completely disagree					Completely agree																			
I find this soundscape to be:																									
Pleasant	1	2	3	4	5																				
Appropriate for my activity	1	2	3	4	5																				
Monotonous	1	2	3	4	5																				
Vibrant	1	2	3	4	5																				
Chaotic	1	2	3	4	5																				
Calm	1	2	3	4	5																				
Eventful	1	2	3	4	5																				
Spending time in this soundscape gives me a break from my day-to-day routine	1	2	3	4	5																				
I find the sound level here to be loud	1	2	3	4	5																				
In general, I am sensitive to noise	1	2	3	4	5																				
I see myself as extraverted, enthusiastic (that is, sociable, assertive, talkative, active, NOT reserved or shy)	1	2	3	4	5																				
I am:	a man					a woman					other/prefer not to say														
Today, I am here:	alone					with others (2 to 4 people)					in a group (5 or more)														
I visit this location:	it is my first time					a few times per year					at least once a month					at least once a week					every day				
I live:	a block or two from here					in the Plateau					elsewhere in Montreal					outside of Montreal									

Perception is
subject to many
variables.

group

alone

alone

Audiotopie sound art installation #1

[Natural & musical sounds]



- calmer
- more conducive to taking a break
- quieter

Audiotopie sound art installation #2

[Speech sounds]



- calmer
- more pleasant
- quieter

Repackage

and share research so practitioner
will read it.

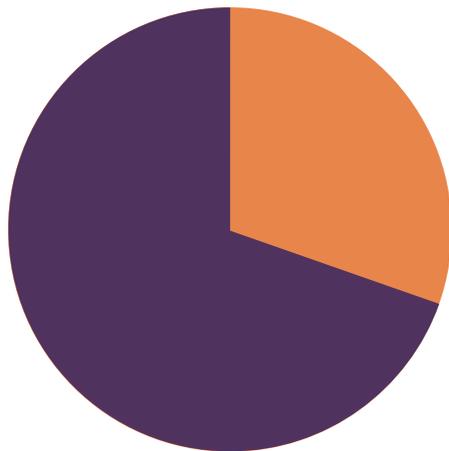
5.

factoid:

Many designers of the built environment don't read academic journals on sound.

“ Do you consult academic research for your work? ”

-Daniel Steele



34%
YES

HIGH CREDIBILITY

- Respect for academic sources
- Necessary for work

66%
SOMETIMES,
RARELY, NEVER

POOR APPLICABILITY

- I know about it, but don't find it useful
- Limited time
- No easy access
- Do use/read, but do not apply

Content source: Steele (Daniel), 2018. Doctoral thesis: Bridging the gap from soundscape research to urban planning and design practice: how do professionals conceptualize, work with, and seek information about sound?

REPACKAGE CONTENT

sidlee
architecture



Christine Kerrigan and Daniel Steele at SidLee Architecture in Montréal (2019).



Christine Kerrigan and Daniel Steele at SidLee Architecture in Montréal (2019).

“

Good design layout
& quality visuals help
designers listen.

-Me

”

REPACKAGE PRESENTATIONS

sidlee
architecture



warm-up
exercise



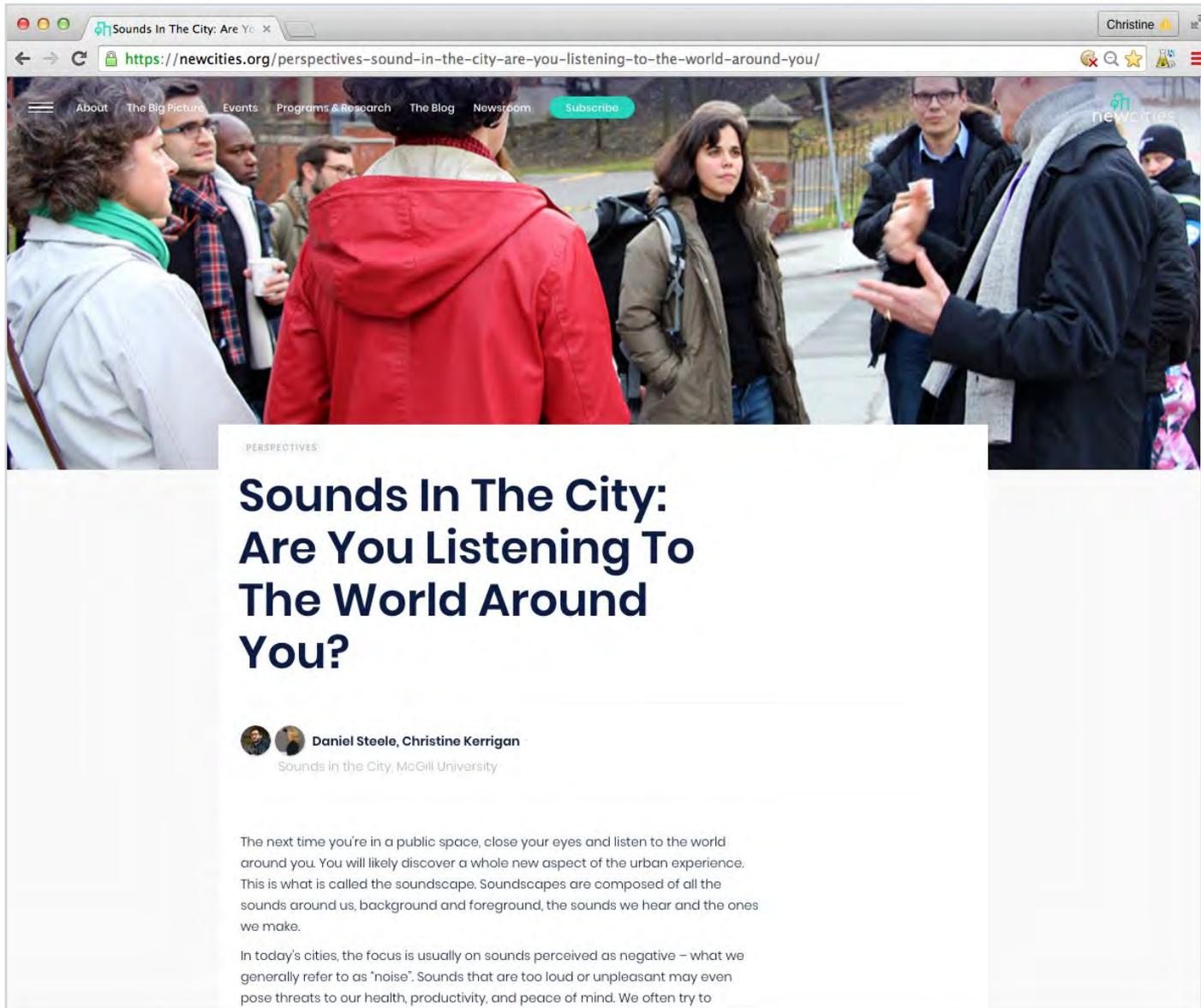
Context is key.



Planned activities should
be appropriate for sound
and visual environments.

©Christine Kerrigan, Daniel Steele

REPACKAGE WRITING

A screenshot of a web browser displaying an article on the 'newcities' website. The browser's address bar shows the URL 'https://newcities.org/perspectives-sound-in-the-city-are-you-listening-to-the-world-around-you/'. The page features a navigation menu with links for 'About', 'The Big Picture', 'Events', 'Programs & Research', 'The Blog', 'Newsroom', and a 'Subscribe' button. The main content area is dominated by a large photograph of a group of people in a public space, with a person in a red jacket in the foreground. Below the photo, the article title 'Sounds In The City: Are You Listening To The World Around You?' is displayed in a large, bold, dark blue font. The authors 'Daniel Steele, Christine Kerrigan' are listed below the title, along with their affiliation 'Sounds in the City, McGill University'. The beginning of the article text is visible, starting with 'The next time you're in a public space, close your eyes and listen to the world around you. You will likely discover a whole new aspect of the urban experience. This is what is called the soundscape. Soundscapes are composed of all the sounds around us, background and foreground, the sounds we hear and the ones we make. In today's cities, the focus is usually on sounds perceived as negative - what we generally refer to as "noise". Sounds that are too loud or unpleasant may even pose threats to our health, productivity, and peace of mind. We often try to'.

REPACKAGE CONTENT

Soundspace: A Manifesto, © 2014
by Gascia Ouzounian and Sarah Lappin
Co-Directors, [Recomposing the City](http://RecomposingtheCity.com)
recomposingthecity.org
Illustration & Graphic Design:
Ryan O'Reilly
[Rinky Design | rinky.org](http://RinkyDesign.com)



1. LEARN HOW TO LISTEN

In order to better respond to the city's built environment as a whole, architects and urban planners must develop a listening practice that informs their understanding of, and approach towards, a site.

In music and sound studies, the concept of "soundscape" has critically transformed the ways in which the acoustic environment is understood and engaged. The World Soundscape Project, a research group founded by Canadian composer R. Murray Schafer in the 1960s, developed the idea of soundscape as a means towards promoting acoustic ecology. Early concerns with noise pollution, however, gave way to myriad artistic practices that deployed soundscape as a creative tool: soundscape compositions, site-specific performances, environmental sound installations, sound maps, soundwalking, and other soundscape-oriented practices all form part of the contemporary musician or sound artist's toolkit.

Schafer proposed that "the way to improve the world's soundscape is quite simple. We must learn how to listen. After we have developed some critical acumen, we may go on to larger projects with social implications so that others may be influenced by our experiences. The ultimate aim would be to begin to make conscious design decisions affecting the soundscape around us." Our manifesto's concept of "soundspace" derives from this last aim: it brings together critical perspectives in architecture, planning, music and sound studies to enable critically informed approaches in the design of acoustic environments to emerge. As a means to interrogate the ways in which bodies and space interact, we see this interdisciplinary as a type of transgressive practice, a "hybridization ... [a] mixing of categories and the questioning of the boundaries that separate categories." The first edict of a soundspace manifesto is clear: we must, first and foremost, learn how to listen.



2. TAKE THE PEOPLE OUT

One of the first sound artists to apply listening in a critical, even radical, way was Max Neuhaus, who in the late 1960s embarked upon a series of participatory works he titled, simply, LISTEN. Neuhaus invited audiences to a concert hall, where they expected to hear a concert of contemporary music. When audiences arrived, however, Neuhaus directed them not towards the auditorium, but away from it. Once outside, Neuhaus led them on listening walks during which he did not utter a single word, but simply listened. In his conception, this simple act of focused listening could permanently alter audiences' listening habits, enabling them to become attuned in new ways to their everyday surroundings. Neuhaus stressed that, in order to truly affect people's listening habits, composers must not bring new sounds into the concert hall, but, crucially, "must take the people out."

Similarly, in evolving soundspaces, architects and planners must lift their practice off the page and into the lived environment. A soundspace cannot happen in theory or necessarily develop within what Tschumi calls the "stable institutionality" of traditional models of practices in architecture and planning. It must be taken out of the metaphorical concert halls within which these disciplines traditionally operate, and into the contingent and particular realms of everyday life. Soundspaces are critical, and even radical, spaces: they challenge the ways in which people understand, experience, and engage with the environments they inhabit. A soundspace is a kind of "attuning" towards an environment, as well as a kind of "tuning" of architecture.

4. TAKE THE SOUND OF THE ROOM BREATHING

In 1963, Yoko Ono composed a tape piece that stood a world apart from Modernist tape music of the period. Ono's composition did not involve performing remarkable or laborious manipulations with pieces of magnetic tape. Instead, it entailed a simple set of instructions that, like other Event Scores by Fluxus artists, required a kind of conceptual straining more than it did any specialised musical training:

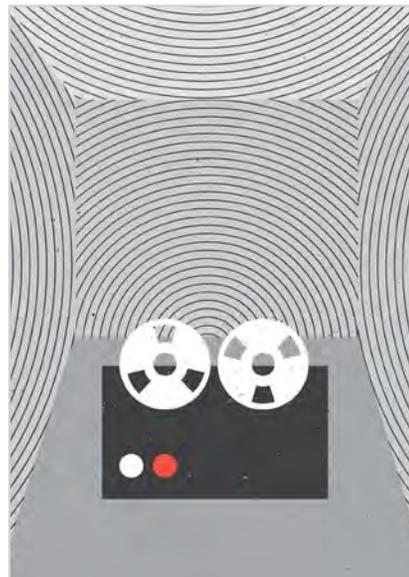
TAPE PIECE II: ROOM PIECE

Take the sound of the room breathing.

1. at dawn
2. in the morning
3. in the afternoon
4. in the evening
5. before dawn

Bottle the smell of the room of that particular hour as well.

Here, Ono invites the performer to contend with the voice of a room – a breathing, presumably living element – as it evolves over the course of a day. Remarkably, it is the space itself that is the principal creative agent, and not the performer. The performer is, rather, one who observes and documents. Room Piece does not "happen to" a space, but rather derives from an intimate engagement with it. Space is repositioned as the creative locus of a musical work, and not merely its setting. Similarly, a soundspace does not necessarily entail bringing sounds into a space; instead, it evolves by bringing sound and space into a mutually productive, co-creative relationship.



8. THINK OF ALL THE SOUNDS LIKE THEY'RE A SYMPHONY

How is a city composed? Who creates the sounds of a city, who listens, and how? Who regulates the city's acoustic environments, who resists, and how?

In Her Long Black Hair (2004), an audio walk for Manhattan's Central Park by Canadian sound artist Janet Cardiff, the listener is cautioned that, "When you're in a city like New York, you have to think of all the sounds like they're a symphony... otherwise you go a bit crazy." Accompanying Cardiff's voice are pre-recorded sounds of traffic, ambulances, street music, footsteps of people and horses – a panoply of mechanical, electronic, and human utterances. These pre-recorded sounds, heard via headphones, merge with sounds that are simultaneously happening in real space. These spaces are further multiplied through Cardiff's narrative, which spans past, present and future, as well as real and imagined spaces.

In contrast to most conventional building materials, sounds can simultaneously occupy different temporal and spatial realms within a physically contiguous space. Sounds can also be heard dynamically, in layers and levels that may or may not connect in coherent ways. Listeners may choose to hear this multiplicity of soundspaces as meaningful, or not; their attention to the sonic environment can also change from moment to moment. A sonic chaos for one listener might be a symphony for another. The architect must account for the multiplicity and variety of soundspaces that occur in urban environments, as well as the different modes and levels of engagement they invite.



REPACKAGE CONTENT

The Sound-Considered City, © 2018
 By Sarah Lappin, Gascia Ouzounian and Rachel O'Grady
 Recomposing the City
www.recomposingthecity.org
 Illustration & Graphic Design:
 Ryan O'Reilly
 Rinky Design | rinky.org



SOUND ANALYSIS EXAMPLE

Why is it important to consider sound?
 Several areas of the city are underserved partly because of their poor acoustic quality. Here we show how a simple sound analysis can be carried out with the aim of better understanding an acoustic environment.

ALBERTBRIDGE ROAD

The level of background noise on Albertbridge Road in Belfast is extremely high. Traffic noise masks pleasant sounds such as people chatting or leaves rustling. However, there are not many pleasant sounds even beneath the rumble of vehicles – why stop and have a conversation when you can't be heard? The acoustic environment of the Albertbridge Road is caught in a vicious cycle: it will not be more pleasant unless people contribute

more positive sounds, but as long as it is an unpleasant place in which to spend time, no new sounds will be created. Reducing traffic noise would quieten this space, but it would not necessarily make it more pleasant. What it really lacks is the **acoustic vibrancy of human activity**. Urban designers could catalyse this through creating **acoustically sheltered places** along the road in which people enjoy spending time.

Albertbridge Road, 6PM, weekday
 At the spot where the reading was taken, traffic noise overpowers any other potential sounds because the traffic is constantly speeding up or slowing down due to the traffic lights. It is therefore very difficult to have a conversation on the street.



Predominant Sounds:
 Traffic rumble.

Background Sounds:
 Bus engine as it waits at traffic lights, people talking, cars starting up at traffic light.



1 HEALTH AND WELL-BEING

BELFAST EXAMPLE NEWTOWARDS ROAD

Newtownards Road, 6:15PM, weekday
 The spot where this reading was taken is on a pavement next to traffic that was stopping and starting due to traffic lights. Therefore the peaks of traffic noise were very loud compared to the relatively calm background noise level of 55 dB. This, combined with the close proximity to the moving traffic, made the bursts of traffic noise particularly unpleasant.



Belfast's Lower Newtownards Road is a well-used arterial route into the city. However, it struggles to maintain its role as a local high street due to a history of deprivation and political tensions. Belfast City Council has invested millions of pounds on environmental improvements under its *Renewing the Routes* scheme (2004-2016). Although this particular scheme was impactful and well received by local residents and businesses, pedestrian occupation of the street remains low.

is also very limited. There are few places along the pavement where people can move away from the road edge because it is so narrow, making this a particularly unpleasant pedestrian route. With nowhere to sit at a reasonable distance from such high levels of noise, both elderly and very young people could be discouraged from walking along Newtownards Road and will drive into the city instead. The acoustic environment and the walkability of a city are tightly interwoven: points of acoustic respite or acoustic interest along the road could encourage people to walk into the town centre along the Newtownards Road.

While traffic noise masks existing pleasant sounds such as people chatting or birdsong, the variety of sounds beneath the din of traffic

Predominant Sounds:
 High speed traffic passing, chatter.

Background Sounds:
 Rustling tree, footsteps.

For many cities, improving the health and well-being of citizens is a key consideration in future plans. In particular, many city planners want to promote physical activity through the careful design of streets, parks, residential areas, and workspaces. Simply put, the more active people are, the better their physical and mental health.

Sound can have an enormous impact on whether or not people feel at ease being 'out and about' in their cities. Streets and spaces which sound pleasant can promote physical activity and interaction with neighbours – both important measures for mental and physical health.



III. CONSIDERING SOUND IN NINE CORE PLANNING PRINCIPLES

Now that we have a better sense of these important introductory issues, we will address how sound can positively impact urban environments with regard to **nine core planning principles**:

1. Health and Well-Being
2. Connectivity
3. Safety
4. Vibrancy
5. Tourism
6. Economic Growth
7. Shared Space
8. Biodiversity
9. Placemaking.

We will first take you through the streets of Belfast to explore how sound impacts these key issues there. We will show examples of problematic areas as well as positive cases.

We will then guide you through a number of international examples that focus on projects by sound artists who collaborate with architects, planners, researchers and community groups. We chose these examples from a variety of social, political and economic contexts in order to show how widely applicable, and yet locally relevant, the consideration of sound can be.



Find Advocates

6.

who will support the importance of including sound at the conceptual phase.

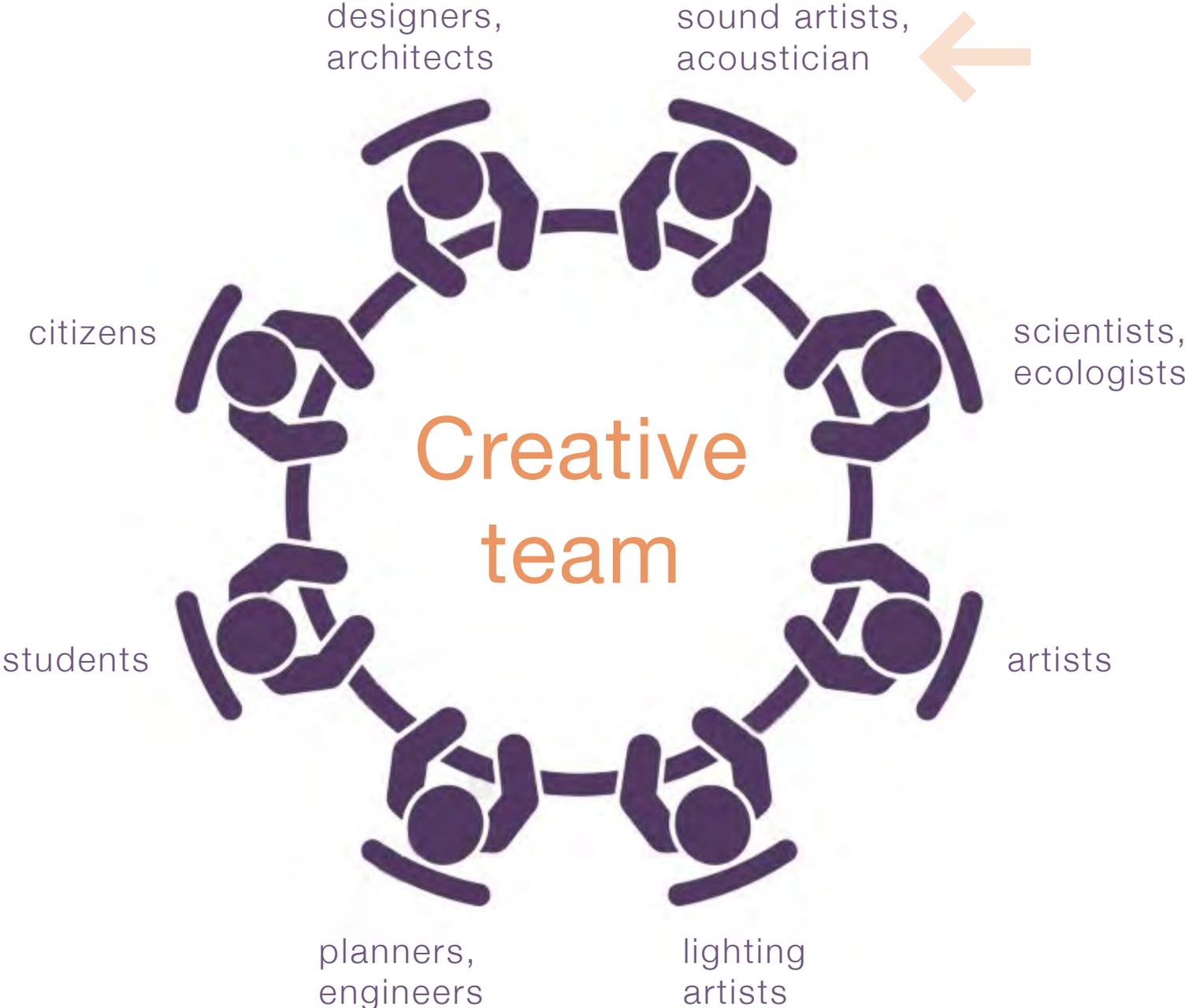


[Zones zen]

Free and publicly accessible restorative zones in urban environments to connect people to nature and reduce stress levels.



ZEN ZONES





Collaborate

more with designers, architects
and other citymakers.

RECAP:

1. **Reframe** sound as an opportunity.
2. **Reconsider** tools used.
3. **Educate** citymakers more about sound.
4. **Repackage** and share research.
5. **Cultivate** relationships with citymakers.
6. **Find** your advocates.
7. **Collaborate** more across disciplines.



RESOURCES

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Merci & thank you.



Christine Kerrigan
christine.kerrigan@mail.mcgill.ca
chris@alioop.com