

# **TRACKING THE IMPACT OF RESEARCH:** Quantifying the results of LACF-funded research project in landscape architecture in Canada

Heather Braiden, Vincent Larivière, Carolina Pradier  
Final Report 2025

# TRACKING THE IMPACT OF RESEARCH: Quantifying the results of LACF- funded research project in landscape architecture in Canada

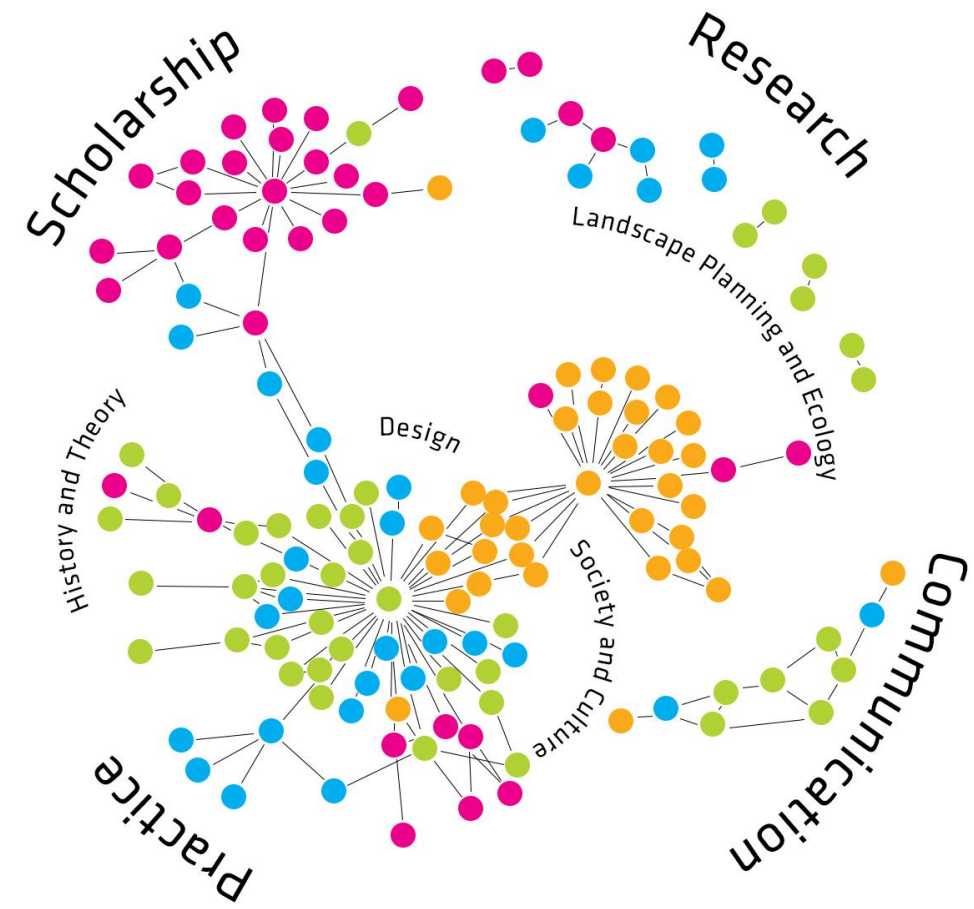


Diagram: Ryad Benzerzoura

# PROJECT OVERVIEW

- The LACF has played a key role in supporting research and advocacy that influence Canadian landscape architecture.
  - During its initial five-year grant period from 1990 to 1995, recipients like Charlie Thomsen, Linda M. Le Geyt, Peter Jacobs, Colette Parsons, Colleen Mercer Clarke, and Bev Sandalack received support to develop visual survey methods, study and design aquatic habitats and therapeutic gardens, and honour pioneers in the field.
  - Their work, documented in books, articles, and archived in television and audio formats, has extended its reach beyond academia, shaping policies, education, and advocacy, thereby continuing their legacy.
- This project aims to highlight the importance of the grants program and trace the flow of knowledge through scholarly work to demonstrate its impact on the profession.

# RESEARCH STATEMENT

## TRACKING THE IMPACT OF RESEARCH:

1. **A problem statement:** LACF supports research in LA for 30+ years; \$1.125 million in “seed” money since 1989; how are the seeds taking root?
2. **A question:** What is the impact of LACF-funded grants, and how can we make visible the importance of this support?
3. **Methods and sources:** Bibliometrics + LACF grants titles, proposals, authors
4. **Literature:** LA, LA-adjacent disciplines, scientometrics (study of knowledge).
5. **Expected contribution:** Make a case for intensifying research programs and a forum for exchange.
6. **Significance:** Increase visibility and legitimacy of LA research and professional practice.

# STARTING POINTS

## TRACKING THE IMPACT OF RESEARCH:

1. **LACF is underselling its impacts:** Case studies: Grants #117, 139, and 151
2. **LA reporting “has it all wrong”:** Peer-review scholarship is a valuable measure of knowledge in the field.
3. **LACF grants are representative of emerging scholarship and more:** How to acknowledge all forms of scholarship?
4. **Outreach:** Landscape|Paysages, Peer Review Journal

# WHO ARE WE?

HEATHER BRAIDEN, CSLA, PH.D.  
VINCENT LARIVIÈRE, Ph.D.  
CAROLINA PRADIER, Ph.D. (C)

érudit

**CIRST** Centre interuniversitaire  
de recherche sur la science  
et la technologie

**OST** OBSERVATOIRE DES SCIENCES  
ET DES TECHNOLOGIES



**Chaire UNESCO**  
Science ouverte



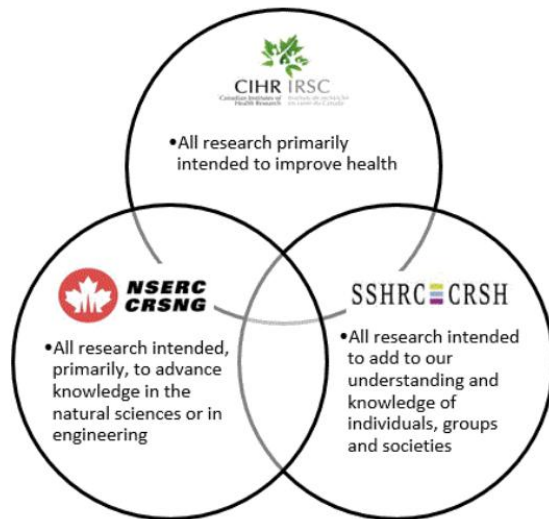
**Chaire de recherche du Québec**  
Découvrabilité des contenus  
scientifiques en français

Université   
de Montréal

# LITERATURE REVIEW

Paterson, Douglas D. "Landscape Architecture Research in Canada: Developing a Certain Future in Uncertain Times." *Landscape Review*, no. 1 (1995): 6–28.

## Tri-council agencies:



## Summary :

- Paterson interviewed 10 faculty members, including senior and junior staff, from each school.
- **While LA research and publishing in Canada began slowly, strides were made in the 1990s.**
- The LA approach brings **together different fields** and really highlights its practical value.
- Despite **limited research funding and methodological training**, smaller faculties serve around 475 undergraduate and 130 graduate students across five schools.
- Academics work in silos and there is a big gap between practice, research, and teaching.

# CASE STUDY: LACF SEED MONEY

#117

Paula Meijerink & Heather Braiden  
2015

Since 2016: (Marcella Eaton; Mary-Ellen Tyler; Douglas Olson; Michelle Legault; Faye Langmaid; Marylin Gound; Ed Versteeg)

#139

Heather Braiden, Marcella Eaton, Susan  
Herrington, Karen Landman, Alissa North,  
Beverly Sandalack, Nicole Valois  
2018

#151

Heather Braiden, Marcella Eaton, Susan  
Herrington, Karen Landman, Alissa North,  
Enrica Dall'Ara, Nicole Valois  
2019

#196

Heather Braiden & Vincent Larivière  
2024

# MODÈLES DE PRATIQUE:

Aperçu de la réhabilitation contemporaine des sols et des paysages après l'extraction de ressources naturelles au Canada



2] Mineral extraction sites in Canada, Paula Meijerink, Hubert Lemieux.

Paula Meijerink & Heather Braiden  
2015

#117

# MODÈLES DE PRATIQUE: Aperçu de la réhabilitation contemporaine des sols et des paysages après l'extraction de ressources naturelles au Canada

\$3,000



## UPDATES | MISES À JOUR

15.05 \_ [Power Point Presentation given at 2015 Mexico Congress](#) / Heather Braiden

15.06 \_ [Mindfulness: Perceptions of tailings and the local landscape in Thetford Mines, Quebec](#) Paper by Heather Braiden and Paula Meijerink VAF Chicago 2015 / This paper was presented at the Vernacular Architecture Forum 2015 > <http://vafweb.org>

16.11 \_ [Preliminary Article for THE SITE MAGAZINE](#) by Braiden, Meijerink + [About THE SITE MAGAZINE](#)

Links

Transitioning

Attachments

 [PRESENTATION MEXICO CONGRESS 2015](#)

Paula Meijerink & Heather Braiden

2015

#117

# MODÈLES DE PRATIQUE: Aperçu de la réhabilitation contemporaine des sols et des paysages après l'extraction de ressources naturelles au Canada

## Research + impact achieved since 2016

**25.10\_SSHRC Partnership Development Grant for \$25,000+7,000= \$32,000**

**25.09\_BRAIDEN**, Heather. “La mise en valeur du paysage minier par le biais de l'architecture du paysage” at *L'Association québécoise pour le patrimoine industriel*, Thetford Mines : Musée Minéro, 18-19 septembre, 2025. Conférencière invitée.

## \$75,000 SSHRC Insight Development Grant

**25.04\_BRAIDEN**, Heather and Robert FRANCE. ““It’s Alive!”: Reanimating a Post-industrial Frankenscape Through Walking, Autoethnography, and Phenomenology” sous lecture à *The International Journal of Architectonic, Spatial, and Environmental Design* (Confirmation # 107441).

**25.05\_** “Post-Asbestos Rehabilitation: Landscape Caretakers” at ***Society for the Study of Architecture in Canada***, Ottawa

**24.12\_DUBOIS**, Samuel et Heather **BRAIDEN**. “Se Souvenir de l’amiante : Architecture, Espace Construit, et Intrication Patrimoniale à Thetford, Québec.” *Journal for the Society for the Study of Architectural History in Canada* 49, no. 1 (2024): 82–106.

**24.12\_FRANCE**, Robert L., and Heather **BRAIDEN**. “Restorative Experiences of Regenerative Environments: Landscape Phenomenology and the Transformation of Post-Industrial Spaces into Re-Naturalized Public Places.” Edited by Chilton Tippin. *Environment and Society: Advances in Research - Restoration* 15 (2024): 234–51.

**24.06\_** “Go-along Landscapes: The role of site custodians in creating continuity for a perpetual care site in Sydney, Nova Scotia” at ***Association of Critical Heritage Studies Conference***, Ireland

**23.06\_** “Framework for comprehensively assessing the climate and public positive design of reclaimed mining sites: Role of the in-situ ‘go-along’ interview as an integral part of narrative ‘layered accounts’” at ***American Studies in Literature and Environment***, Oregon

**22.06\_** “The Sydney Tar Ponds: Extracting Lessons for Research in Landscape Architecture,” **SSHRC Insight Development Grant**.

## \$7,000 SSHRC Exploration

**17.06\_** “File under “disaster area, incredible ruins”: landscape as heritage in Thetford Mines, Québec Presented at ***Association of Critical Heritage Studies***, Montreal.

**16.06\_** SSHRC Exploration Grant: The Sydney Tar Ponds: Extracting Lessons for Research in Landscape Architecture

## \$3,000 LACF “Seed Grant”

#117

# MODÈLES DE PRATIQUE: Aperçu de la réhabilitation contemporaine des sols et des paysages après l'extraction de ressources naturelles au Canada

# LACF IS UNDERSELLING ITS IMPACT

## **Additional funding:**

- \$122,000

## **Trainees:**

- 41 students
- 2 undergraduate student RAs
- 4 graduate student RAs

## **Outreach:**

- 30+ community members
- 5 international conferences
- 2 national conferences

## **Publications:**

- 3 peer-reviewed articles + 1 article under review
- 1 magazine article
- 2 articles in preparation

## **Interdisciplinarity:**

- Architecture
- Critical heritage studies
- Mine rehabilitation
- Environmental sciences
- Environmental engineering
- Biology
- Ecology
- Geology

# THINKING CRITICALLY ABOUT CANADIAN LANDSCAPES: A disciplinary conversation on the status of education and research in Canadian Schools of Landscape Architecture\_ phase 1



Photograph by Moin Hassanzadeh during the Land | Terre Design Research Network Colloquium held at the University of Manitoba (October 26th to 28th, 2018).

Heather Braiden, Marcella Eaton, Susan  
Herrington, Karen Landman, Alissa North,  
Beverly Sandalack, Nicole Valois  
2018

#139

THINKING  
CRITICALLY ABOUT  
CANADIAN  
LANDSCAPES: A  
disciplinary  
conversation on the  
status of education  
and research in  
Canadian Schools of  
Landscape  
Architecture\_ phase 1



**LAND | TERRE DESIGN RESEARCH NETWORK IS A COLLECTIVE  
AIMED AT INCREASING AWARENESS AND RESEARCH IN  
LANDSCAPE ARCHITECTURE ACROSS CANADA.**

<https://www.landterre.com/>

Heather Braiden, Marcella Eaton, Susan  
Herrington, Karen Landman, Alissa North,  
Beverly Sandalack, Nicole Valois  
2018



# FUNDING AND PUBLICATIONS:

## Tri-Council:

- Until recently: no LA category
- SSHRC = SSHRC
- Publications = SSHRC

## Publications:

- Publish or perish
- No peer review LA journal in Canada
- JoLA and LA journal = low impact; less attractive
- Books; self-publishing?

## Interdisciplinarity:

- Hard to find “impact worthy”
- Hard to find LA articles

#139

Heather Braiden, Marcella Eaton, Susan Herrington, Karen Landman, Alissa North, Beverly Sandalack, Nicole Valois

2018

## 2019 Survey of Academic Researchers

Over seventy Canadian academics in landscape architecture were asked to respond to this survey about sources of funding and venues for publication

*This work was completed by Professor Alissa North and Morgan Quinn, MLA student (2021) at the University of Toronto, with Professor Heather Braiden at Dalhousie University, and with Professor Marcella Eaton at the University of Manitoba.*

### WHY THIS SURVEY

The survey sought to gather and disseminate information on publications and grants. It aimed to understand where landscape architecture academics in Canada have published their works and from what organizations they have obtained research grants, both within Canada and Internationally. The LJT Design Research Network aimed to collect this information to share on their website, for landscape architecture academics, students of landscape architecture, and others across Canada and beyond to reference. The publishers and grant sources used by landscape architecture academics are listed, such that our community can gain a picture of where and how we mobilize our knowledge.

[VIEW RESULTS](#)

### SUMMARY

Over seventy Canadian academics in landscape architecture were asked to respond to this survey about sources of funding, and venues for publications. Twenty-nine people responded. These researchers reply that they apply for grants within Canada more than they do internationally yet they publish their work internationally more frequently than they do within Canada. Researchers favour peer-reviewed journals, which is necessary for tenure and promotion. There are few options for peer-reviewed publication of academic research work in landscape architecture in Canada. Research and its publication in academic institutions is impacted by standards and guidelines implemented by universities' promotion and research offices along with the requirements of accreditation within the Canadian Society of Landscape Architects. Findings from the survey suggest a need for a peer-review platform for circulating Canadian-based research.

OVER **70** LANDSCAPE ARCHITECTURE ACADEMICS WERE CONTACTED  
ONLY **29** RESPONDED

**FINDINGS FROM THE SURVEY  
SUGGEST A NEED FOR A PEER-  
REVIEWED PLATFORM FOR  
CIRCULATING CANADIAN-BASED  
RESEARCH.**

**Trainees:**

- 95 students
- 1 undergraduate student RA
- 3 graduate student RAs

**Outreach:**

- 100 + community members
- 2 national conferences

**Publications:**

- 5 articles

**STUDIO**  
**PROBLÉMATIQUES :**  
Thinking Critically  
about Canadian  
Landscapes\_ Phase 2

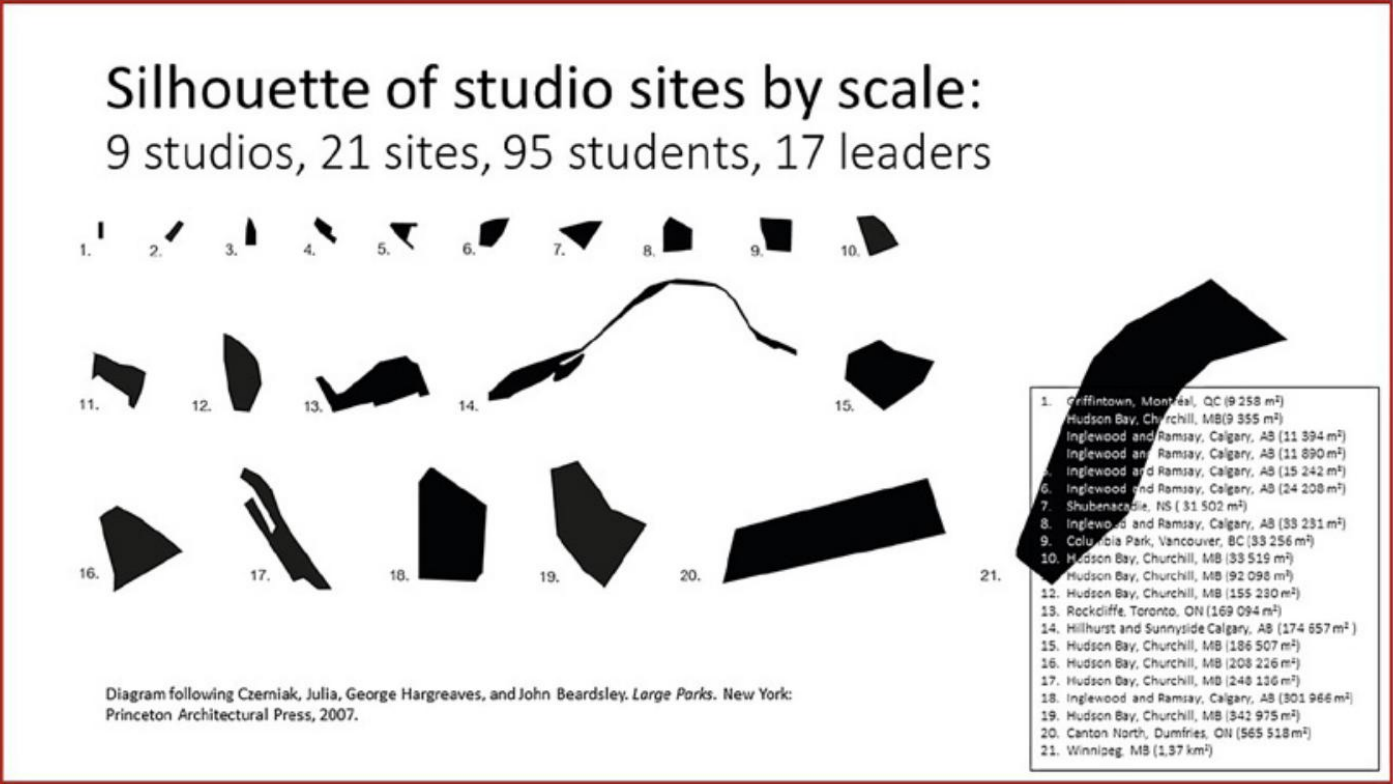


Figure 3. Olivia Duchesne-Raymond et Heather Braiden, *Silhouette of Studio Sites*, 2022. Digital image/image numérique.

Heather Braiden, Marcella Eaton, Susan Herrington, Karen Landman, Alissa North, Enrica Dall’Ara, Nicole Valois  
2019

# RACAR

Vol. 48, no. 1 (2023)



UAAC/AAUC

UNIVERSITIES ART ASSOCIATION OF CANADA  
L'ASSOCIATION D'ART DES UNIVERSITÉS DU CANADA



## *Polemics/Polémiques*

Guest editor/Rédactrice invitée : Heather Braiden

- **Heather Braiden** | [Studio Problématique: Teaching and learning optimism in landscape architecture studios across Canada](#)
- **Heather Braiden and Daniel Roehr** | [Daniel Roehr and Stephanie Braconnier's Multisensory Garden](#)
- **Marcella Eaton** | [On Design for Rural Communities](#)
- **Zannah Matson** | [Designing a Future Otherwise: Optimism for Post-Extractive Site Rehabilitation](#)
- **Nicole Valois** | [Designer l'optimisme : atelier de projet](#)

## STUDIO PROBLÉMATIQUES : Thinking Critically about Canadian Landscapes\_ Phase 2

Heather Braiden, Marcella Eaton, Susan  
Herrington, Karen Landman, Alissa North,  
Enrica Dall'Ara, Nicole Valois  
2019

#151

# SCHOLARSHIP IS CRITICAL; WHY IS IT SO HARD TO ACHIEVE?

Zube, Ervin H. “The Evolution of a Profession.” *Landscape and Urban Planning* 42, no. 2–4 (1998): 75–80. [https://doi.org/10.1016/S0169-2046\(98\)00078-4](https://doi.org/10.1016/S0169-2046(98)00078-4).

For landscape architecture to grow as a discipline, it must **take responsibility for developing its knowledge base.**

Gobster, Paul H., Joan Iverson Nassauer, and Daniel J. Nadenicek. “Landscape Journal’ and Scholarship in Landscape Architecture: The Next 25 Years.” *Landscape Journal* 29, no. 1 (2010): 52–70.

**“Society would benefit if landscape architecture scholarship, as published in *LJ*, were more influential.” p.52**

# LITERATURE: WHAT LA SCHOLARSHIP IS DOING WRONG

Brown, Robert D., and Robert C. Corry. "Evidence-Based Landscape Architecture: The Maturing of a Profession." *Landscape and Urban Planning*, Landscape and Urban Planning at 100, 100, no. 4 (April 30, 2011): 327–29.  
<https://doi.org/10.1016/j.landurbplan.2011.01.017>.

## To advance the discipline:

LA is still based on beliefs rather than facts: "Both the profession and the discipline of landscape architecture have **a culture of non-reporting**. There are **very few articles in the scholarly literature that evaluate the effectiveness of completed projects**. Built landscapes are seldom tested or monitored to see if they have achieved their stated objectives, and thus **mistakes are repeated with remarkable and embarrassing efficiency**. Landscape architects implicitly derive new hypotheses for every project, yet seldom think of built projects as field experiments, rarely observe and record the effects to see if the design objectives were met, and almost never report back to the discipline (Ahern, 1999)."

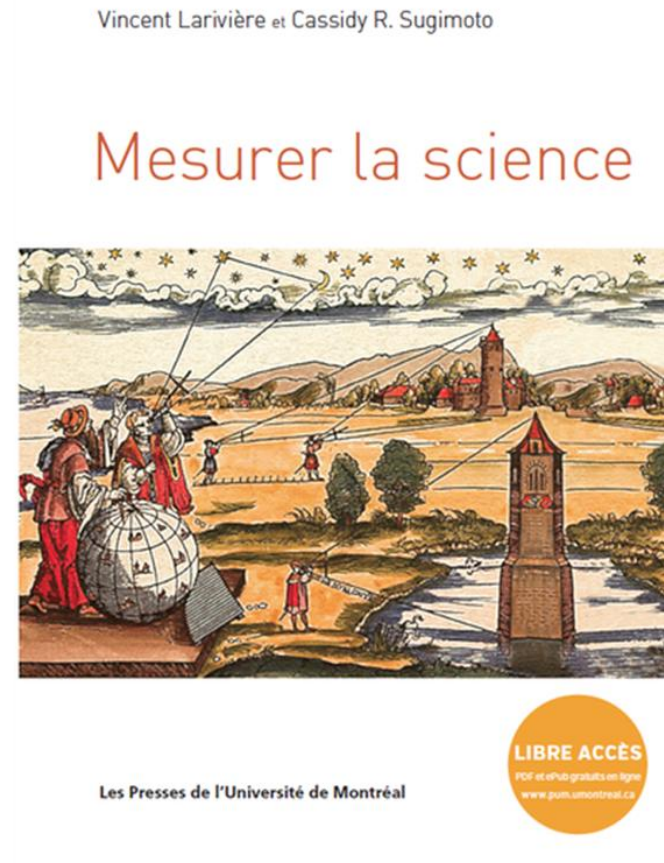
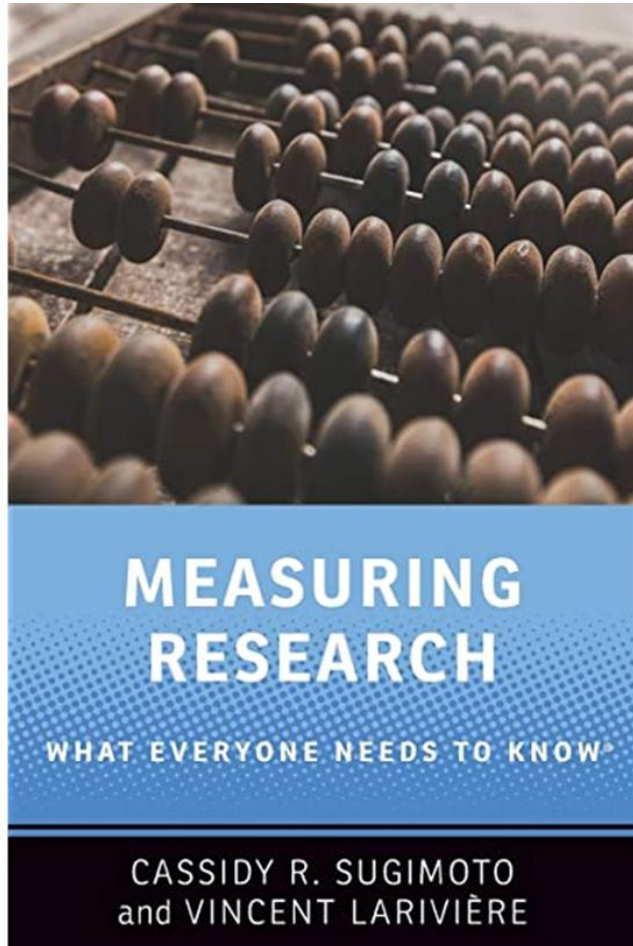
# HYPOTHESIS: LA WILL FOLLOW THE ARCHITECTURE TRENDS IN SCHOLARSHIP:

Sauvé, Jean-Sébastien, Philippe Mongeon, and Vincent Larivière. "From Art to Science: A Bibliometric Analysis of Architectural Scholarly Production from 1980 to 2015." *PLOS ONE* 17, no. 11 (November 3, 2022): e0276840. <https://doi.org/10.1371/journal.pone.0276840>.

## Article summary:

- A growing trend in architectural literature emphasizes academic perspectives over practical knowledge.
- **Architecture is increasingly viewed as a scholarly pursuit.**
- **English** has emerged as the primary language for this discourse.
- Scholarship is also becoming **more global, with a diminished emphasis on local or national topics.**
- This shift aligns scholarship **more with methods in engineering and technology rather than with professional or artistic expertise.**

# MEASURING RESEARCH



Larivière, Vincent, and Cassidy R. Sugimoto.  
*Mesurer la science*. Montréal: Presses  
de l'Université de Montréal, 2018.  
<https://www.pum.umontreal.ca/catalogue/mesurer-la-science>.

# How to measure impact?

- What type of impact is measured?
  - Scholarly: citations
  - “Social” impact: social media
  - Policy impact: policy documents
- Measuring production
  - “Who” produces?

# SCHOLARLY PUBLISHING

- Increasingly important in researchers' careers
  - Tied to evaluation and career advancement
- Publishing as signal of research activity
- Importance of peer review

# METHODOLOGY

- Uses published scientific literature (articles, books, conference proceedings, etc.) to measuring scientific activity.
- Basic idea of bibliometrics is that new knowledge created by scientists is embedded in the scientific literature, and that by measuring scientific literature, we measure knowledge.
- Scientific discoveries are transmitted in a written form (an article or a book), and their validity — defined as its acceptance by the scientific community as a valid body of knowledge — is assured by peer-review (Merton, 1973).

“bibliometrics”

# BIBLIOMETRICS - USES

- Scholarly communication
  - Collection development
- Basic research in history and sociology of science
  - Understanding scientific revolutions
- Science policy
  - How to organize research?
  - What to fund?
- Research evaluation

# BIBLIOMETRICS - SOURCES

- Web of Science (13,000 - 25,000 journals)
- Scopus (25,000 journals)
- Google Scholar (online papers)
- Dimensions (Crossref + PubMed + autres sources)
- ~~Microsoft Academic~~ (online papers)
  - OpenAlex
- Lens (Crossref + PubMed + patents + other sources)

# TOPIC MODELING: LACF

1. Cleaning and joining title and abstract texts.
2. Embedding: converting our documents to numerical representations (1024-dimensional vectors), where semantically similar texts are placed nearby.
3. Reduce the dimensionality of these representations (vectors) to enable clustering.
4. Finding groups of vectors so that elements within each group are similar, while also different from other groups. Each of these groups is a topic.
5. Finding the words that represent each topic (cluster)

25	0_landscapes_paysages_paysages_landscapes_paysages landscapes
21	1_community_indigenous_design_landscape
15	2_collection_frances_blue_collection_phase_grubb
15	3_landscape_canadian_portfolio_canadian_landscape
18	4_urban_cities_design_community
13	5_design_evaluation_therapeutic_kit
10	6_landscape_resilience_design_landscape_architects
8	7_architecture_canada_landscape_architecture_architecture_canada
8	8_history_manitoba_canada_manitoba_history
8	9_blue_frances_archives_landscape_architecture
7	10_communities_climate_change_coastal
8	11_landscape_canadian_national_research
6	12_schwabenbauer_scholarship_schwabenbauer_scholarship_5th
7	13_green_roof_green_roofs_roofs
6	14_history_women_manitoba_architects
9	15_landscape_research_expo_architecture
5	16_architecture_value_urban_design_competition_thompson_park
5	17_health_rehabilitation_research_contaminated
194	

Table 1: Preliminary LA Topics List, to December 2024

# DENDROGRAM: 1.0V

## Hierarchical Clustering

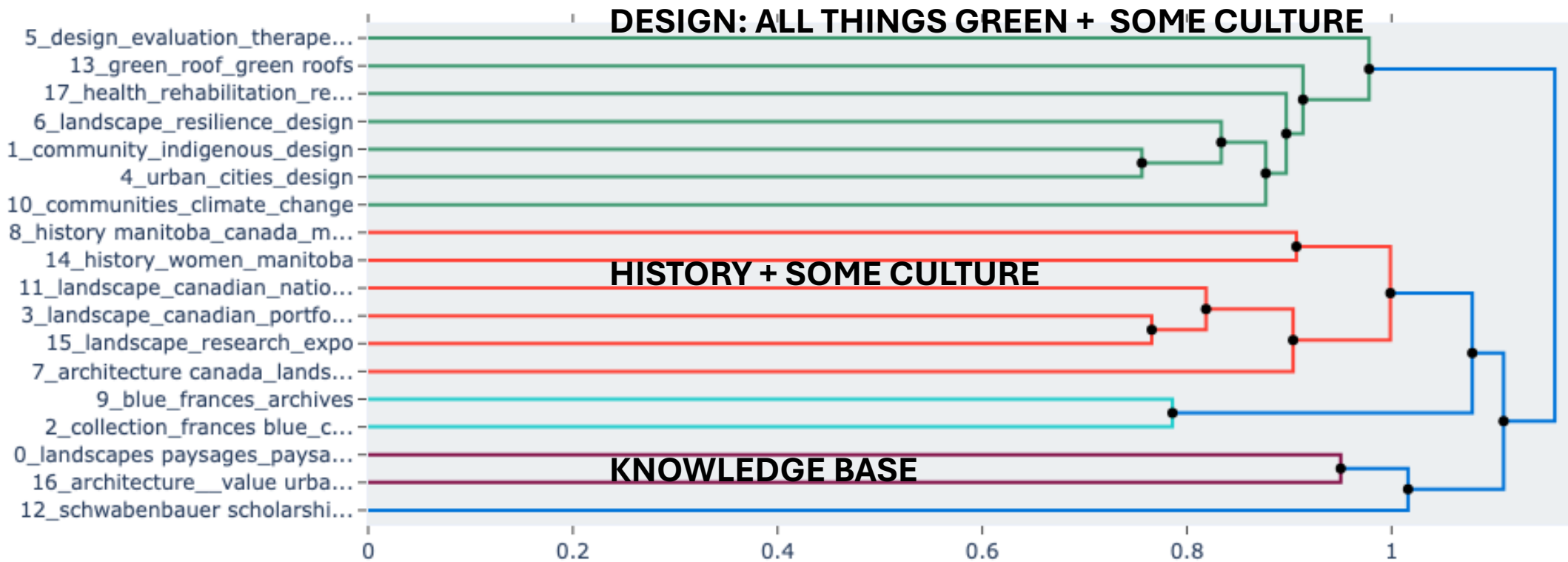
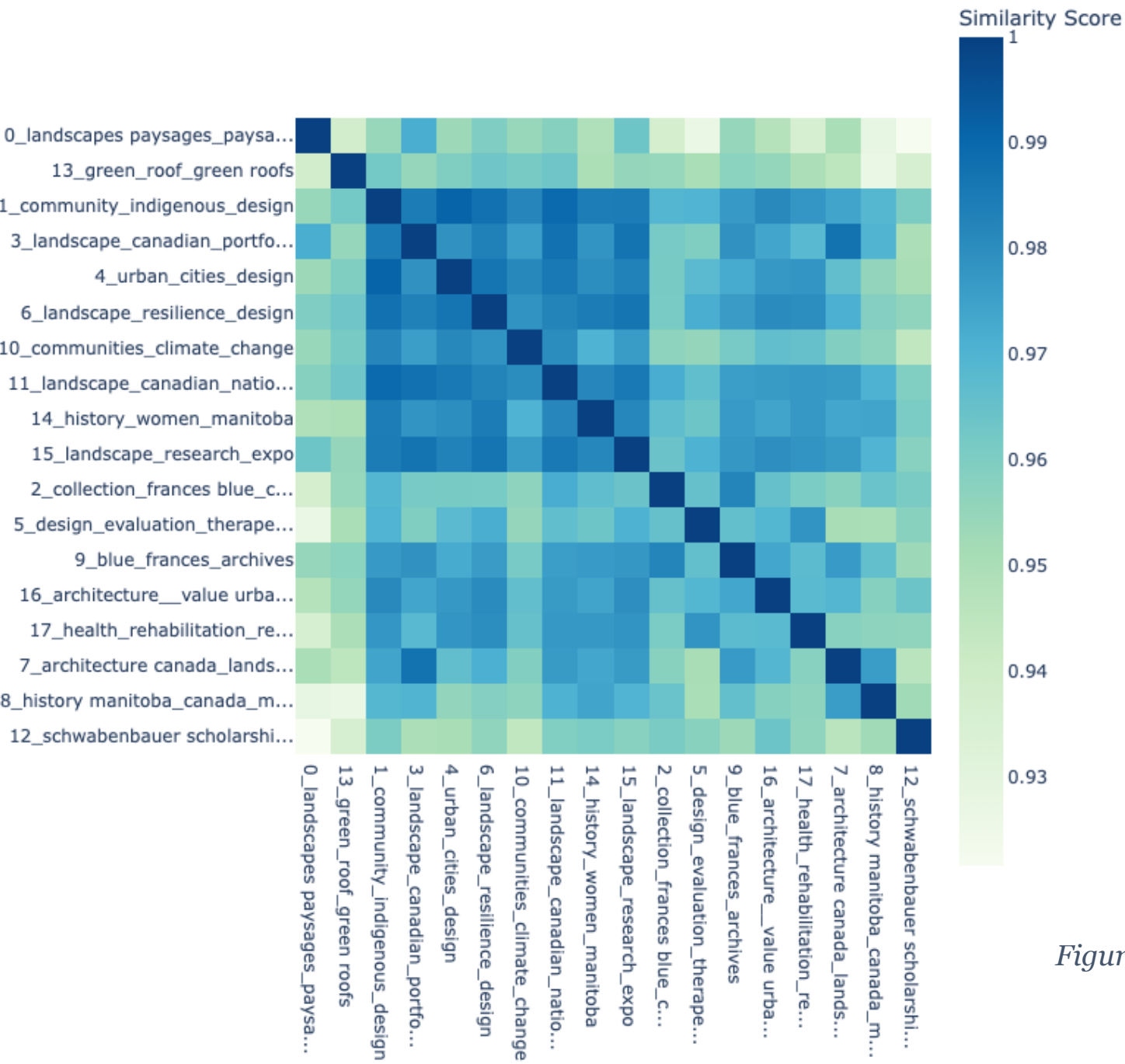


Figure 1: Hierarchical Clustering: Landscape Architecture Canada Foundation Research Grants, Carolina Pradier, 2024



# SIMILARITY MATRIX

Figure 2: Similarity Matrix: Landscape Architecture Canada Foundation website, Carolina Pradier, 2024

# WHY TOPIC MODELING IS USEFUL?

## Documents and Topics

Themes		
1	Landscape planning and ecology (landscape change, fragmentation, and measurement)	
2	Conservation/restoration ecology (climate change, invasive species, biodiversity protection).	
3	Society and culture	
4	Environmental psychology (place attachment, psychological restoration, and environmental concern).	
5	Public health, leisure sciences, planning (Physical activity and health).	
6	History and theory	
7	Design	

D2

8\_blue\_frances\_archives

- 0\_collection\_frances blue\_collection phase
- 1\_design\_community\_landscape
- 2\_landscape\_portfolio\_architects
- 3\_resilience\_urban\_design
- 4\_health\_landscape\_project
- 5\_green\_plant\_native
- 6\_landscapes paysages\_paysages\_landscapes
- 7\_landscape\_landscape architecture\_architecture
- 8\_blue\_frances\_archives
- 9\_landscape\_national\_research
- 10\_75th\_scenic\_roads\_paysages\_75th
- 11\_climate\_communities\_coastal
- 12\_schwabenbauer\_scholarship\_schwabenbauer\_scholarship
- 13\_research\_funding\_lacf
- 14\_toronto\_indigenous\_park
- 15\_project\_alternative\_methods
- 16\_water\_communication\_design
- 17\_water edge\_policy\_designing\_kit green
- 18\_urban\_food\_cities
- 19\_expo\_heritage\_67
- 20\_landscapes\_community\_parklets
- 21\_manitoba\_history\_women

wabenbauer scholarship\_schwabenbauer\_scholarship

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75th edge\_policy\_designing\_kit green  
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11 climate\_communities\_coastal  
9\_landscape\_national\_research  
41 health\_recreation\_urban\_design  
20 landscapes\_community\_parklets  
1\_design\_community\_landscape  
18\_urban\_food\_cities  
2\_landscape\_portfolio\_architects  
19\_expo\_heritage\_67  
7\_landscape\_landscape architecture\_architecture  
21\_manitoba\_history\_women

# WHY TOPIC MODELING IS USEFUL?

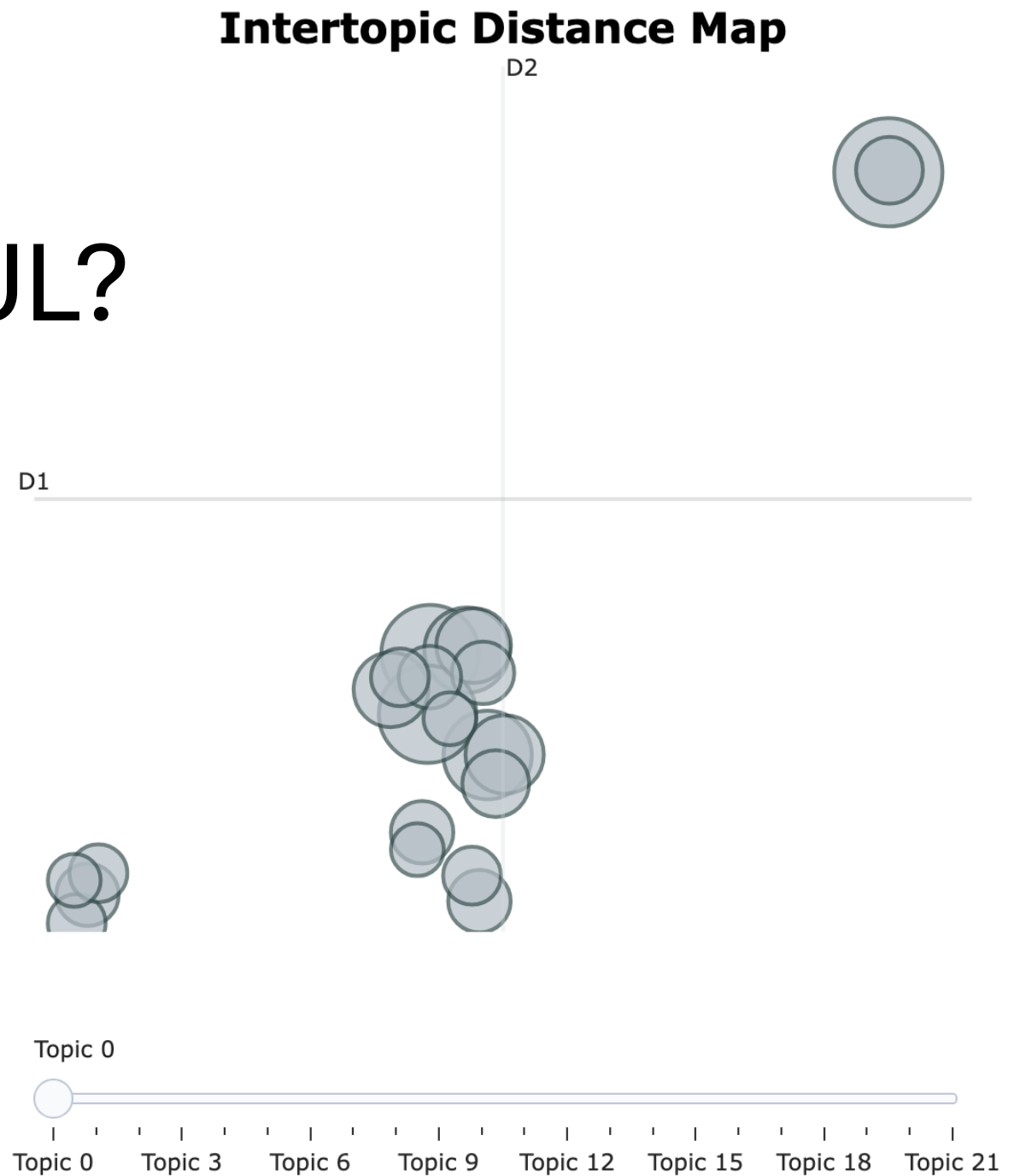
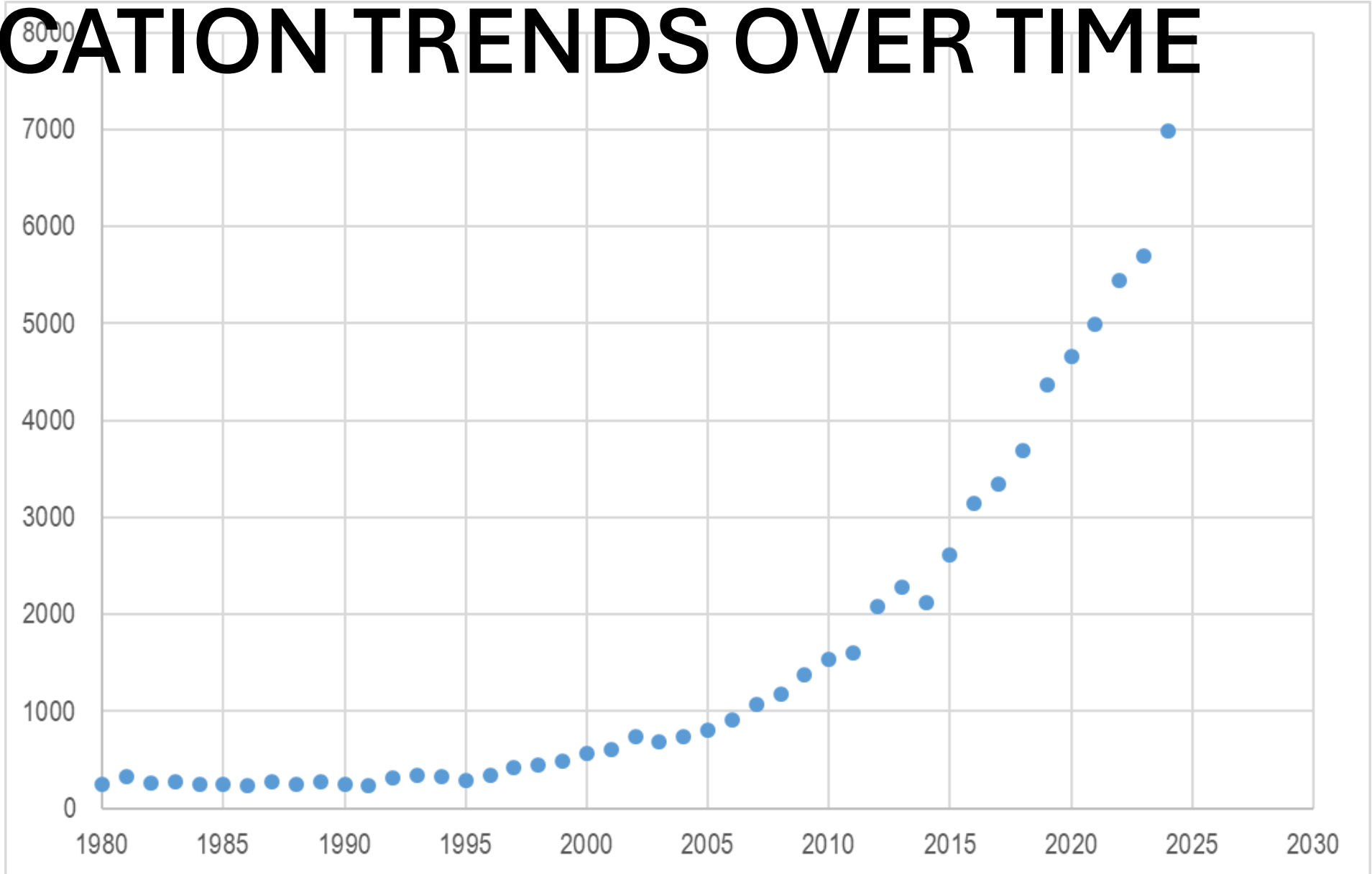


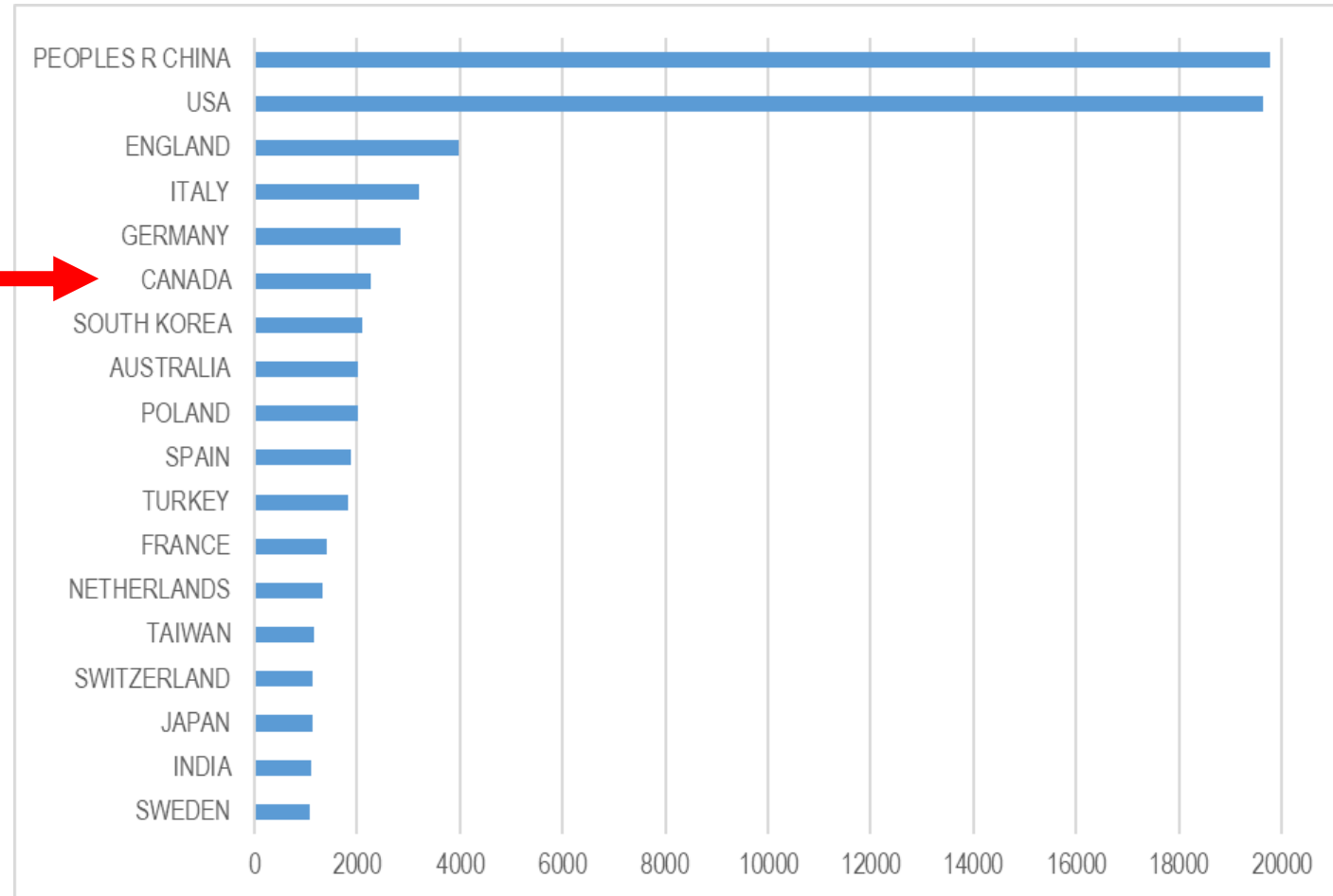
Figure 3: Intertopic Distance Map, LACF Grants, Carolina Pradier, 2024

# LANDSCAPE ARCHITECTURE PUBLICATION TRENDS OVER TIME

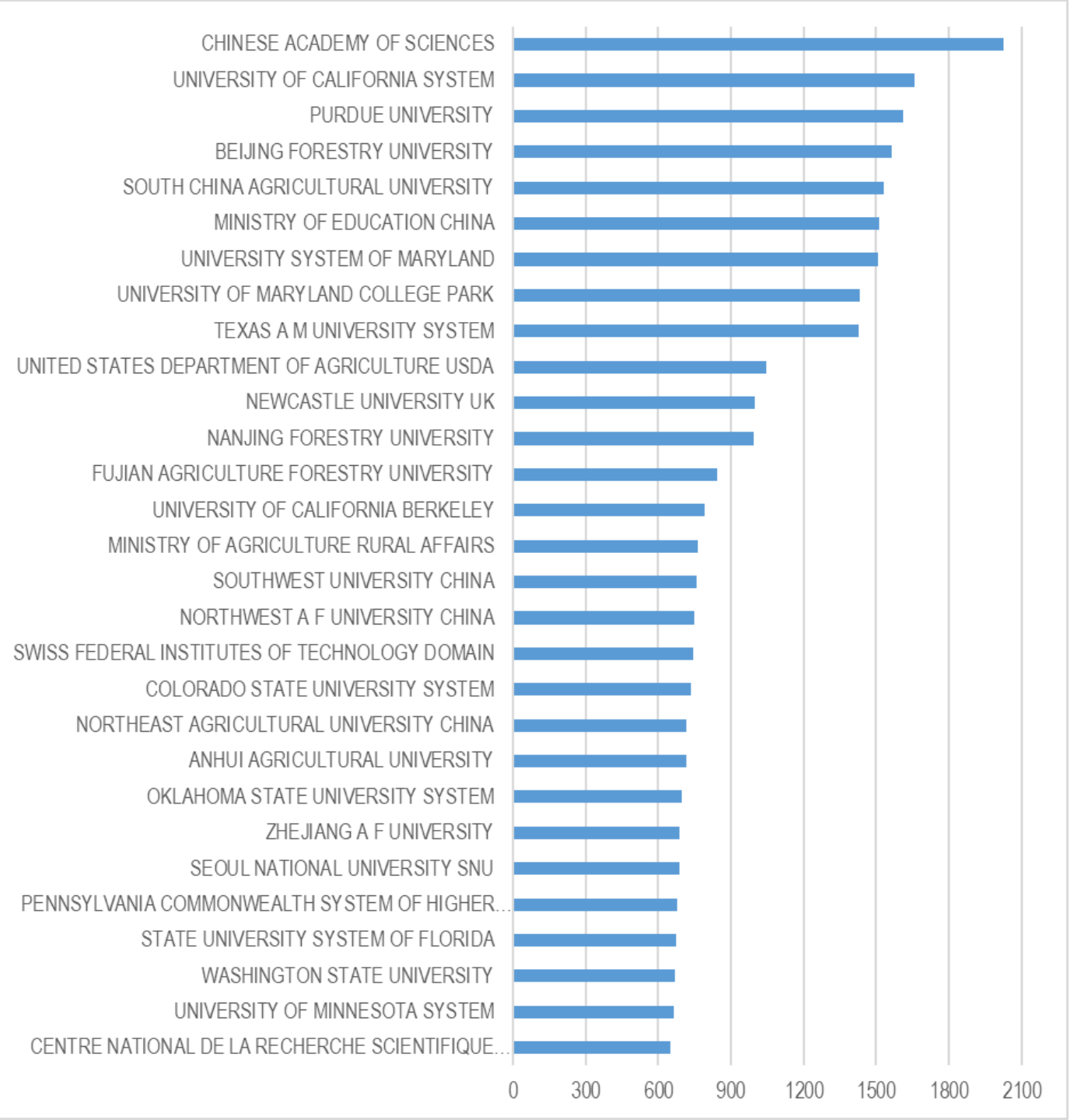


# MOST ACTIVE COUNTRIES

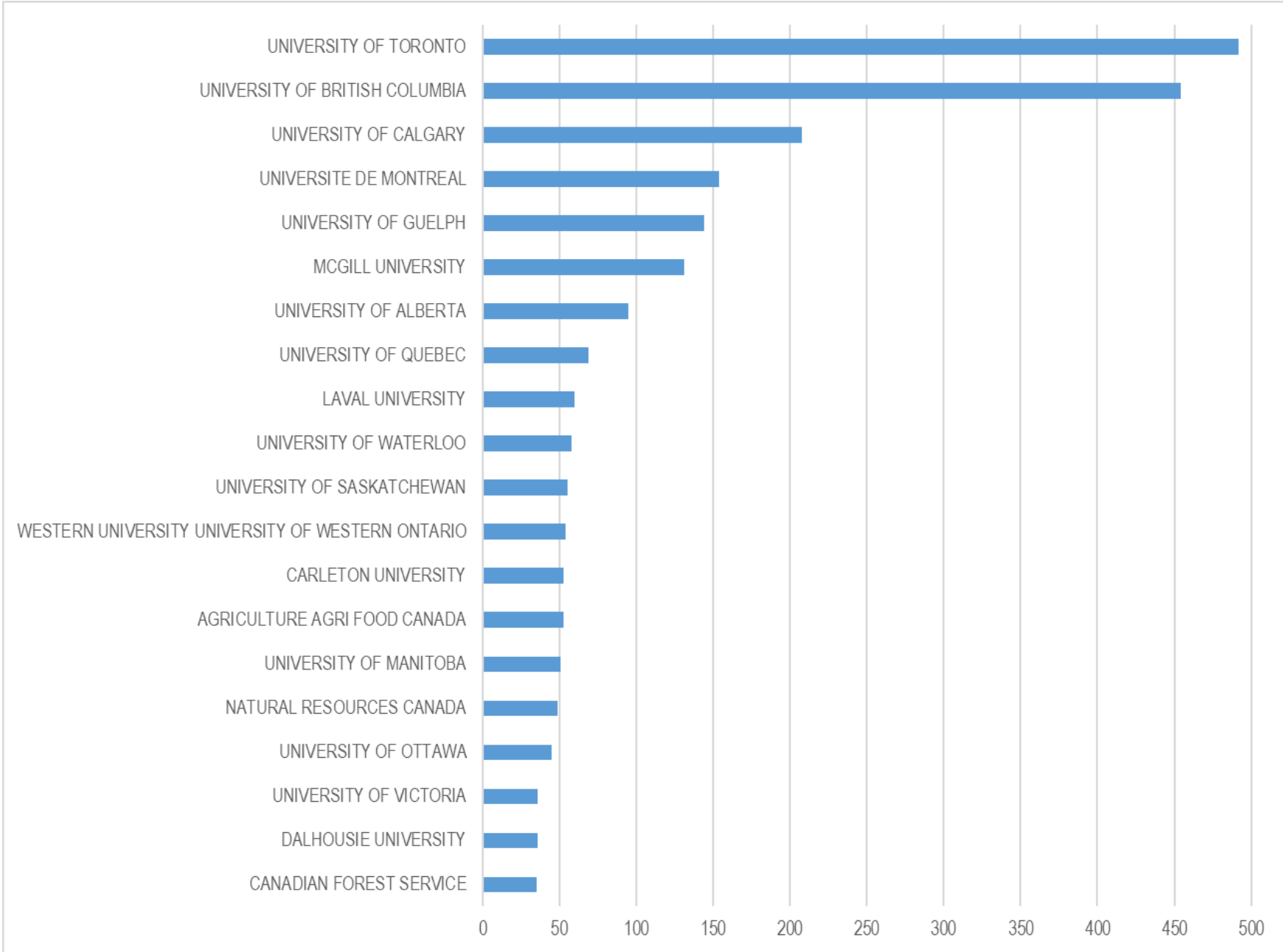
6th



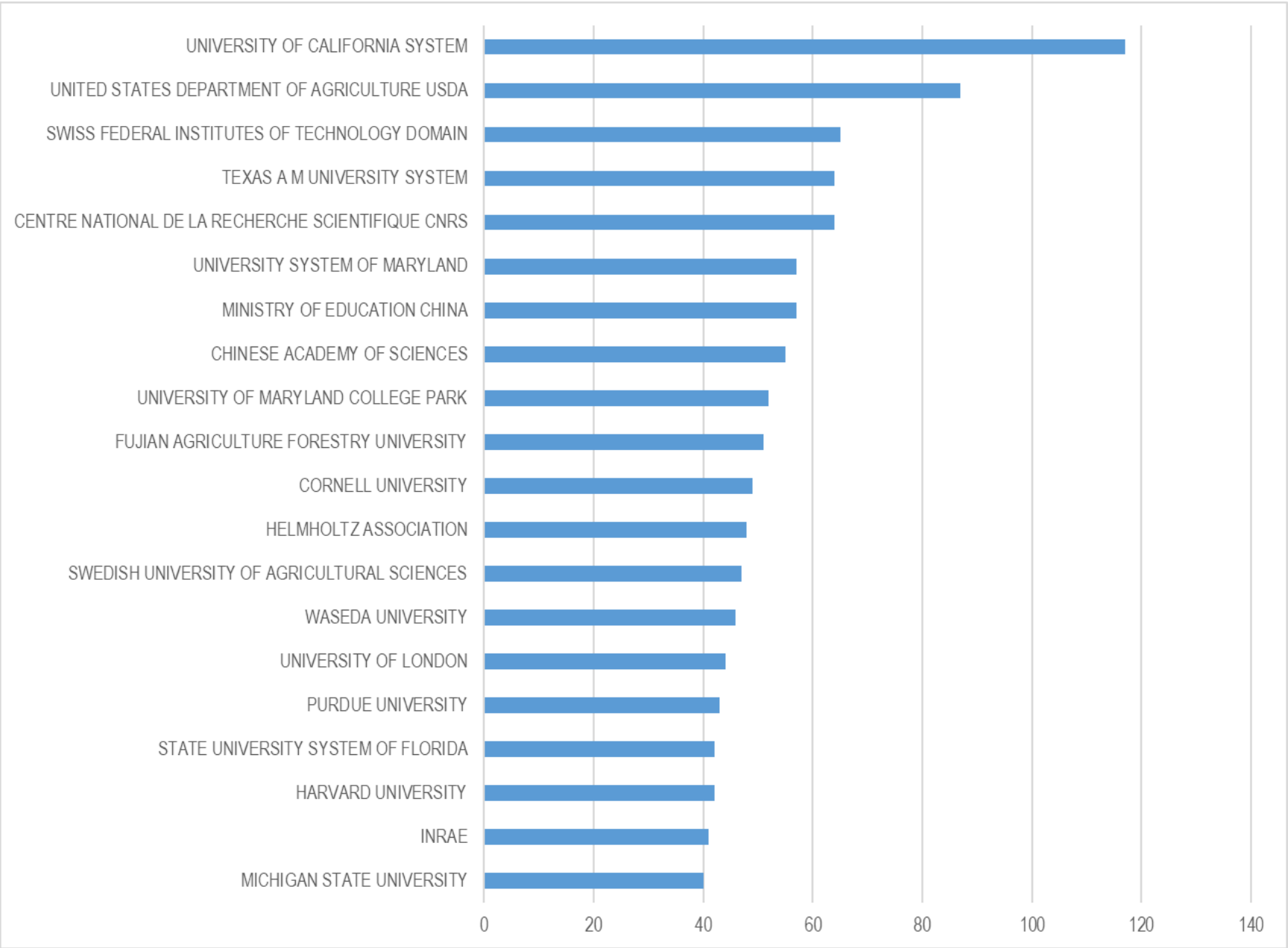
# MAIN INSTITUTIONS



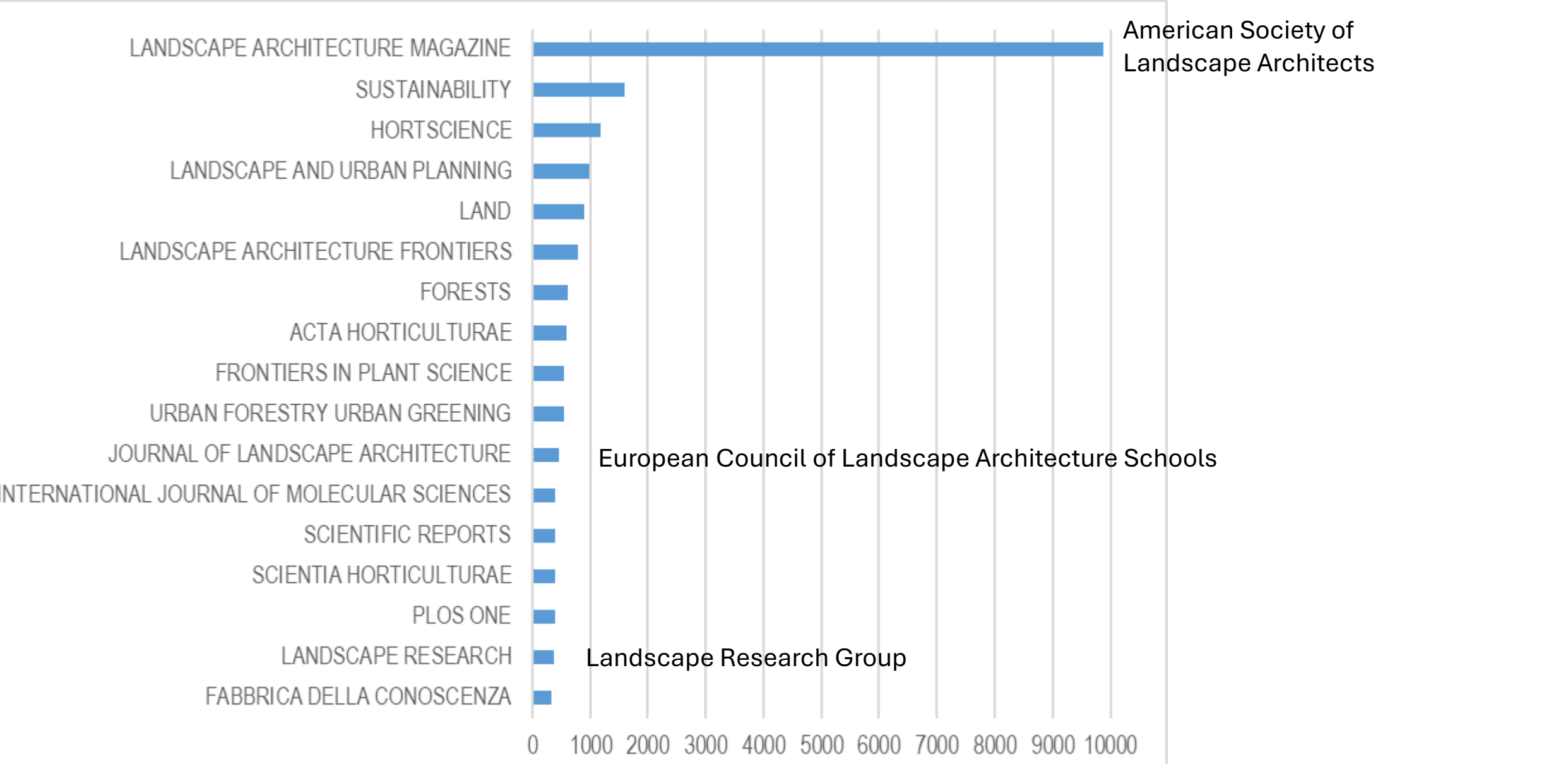
# CANADIAN INSTITUTIONS



# CANADIAN COLLABORATORS



# MAIN JOURNALS



# EMERGING TRENDS IN LA RESEARCH?

Gobster, Paul H., Joan Iverson Nassauer, and Daniel J. Nadenicek. “Landscape Journal’ and Scholarship in Landscape Architecture: The Next 25 Years.” *Landscape Journal* 29, no. 1 (2010): 52–70.

## **LJ** areas of opportunity based on “most cited” in other journals:

- Landscape planning and landscape ecology (landscape change, fragmentation, and measurement).
- Environmental psychology (place attachment, psychological restoration, and environmental concern).
- Planning (planning).
- Conservation/restoration ecology (climate change, invasive species, biodiversity protection).
- Public health, leisure sciences, planning (Physical activity and health).

## **TRENDS MADE VISIBLE FROM THIS LACF STUDY:**

- **New Journal:** *Journal of Digital Landscape Architecture* (JoDLA).
- Canadian topics: ['**extraction**' '**dispossession**' 'community' 'communities' 'conservation authority' 'public' 'natural heritage' 'cultural heritage' '**black**' '**Indigenous**' '**reconciliation**' '**urban farming**' 'public space' 'open space' 'rural']
- Regions studied: ['global' 'international' 'punjab' 'delhi' 'sweden' 'finland' 'Saudi Arabia' 'scotland' 'jamaica']



# FINDINGS:

## What the data tells us about LACF-funded scholarship:

1. **PLACE:** ['manitoba' 'architecture manitoba' 'prairie townscape' 'regional' 'maritime' 'oil sands' 'Alberta' 'Nova Scotia' 'New Brunswick' 'Nunavik' 'Chignecto Isthmus' 'Atlantic' 'province' 'Toronto' 'northern' 'Milton' 'Hamilton' 'Ottawa' 'Saskatchewan' 'Montreal' 'Yellowknife' 'Rouyn-Noranda' 'Métis' 'Kahnawake' 'Uxbridge' 'Vancouver' 'Edmonton' ]
2. **OUTREACH:** ['Oral history' 'stories' 'case study' 'archival' 'knowledge creation' 'narrative' 'story map' 'participatory' 'GIS' 'design guidelines' 'remote sensing' 'AI' 'generative model' 'soil test' 'big data' 'mapping' 'interviews' 'literature review' 'documentaires' 'portfolio' 'geodesign' 'symposium' 'community engagement' 'sculpture' 'post-occupancy evaluation' 'newsletter' 'construction methods' ]

# RAYONNEMENT 1:

## 02\_DATA-SCRAPING: A study of “natural capital” trends in landscape architecture through LACF-funded projects

HEATHER BRAIDEN + VINCENT LARIVIÈRE  
+ CAROLINA PRADIER

EN  
SINCE 1989, THE LACF has awarded \$1125 million (CAD) in funding for research by and for landscape architects and related disciplines in Canada. However, the trends and impacts of these funded projects have not been tracked.

Research influences building practices, and vice versa: therefore, by understanding ongoing research, we can enhance our knowledge and practice of design and construction methods. Vincent, Carolina and I are studying the grants to better understand what, who, how and where we research landscape architecture in Canada. We are doing this by using “bibliometrics,” which involves entering the titles and descriptions of all past projects into a database, quantitatively analyzing topic trends, and measuring the impact of the projects based on their scholarly output. This means we can account for a wide range of topics; however, the impact is measured by the number of scientific articles published in our field. Scholarship builds a knowledge base that informs design decisions, strengthens advocacy and prevents repeated mistakes in built work. While we recognize that this approach neglects podcasts, websites and artistic works such as sculptures, the published works help us understand areas of focus.

IMAGE RYAD BENZER ZOURA

### THREE KEY DATA POINTS | TROIS POINTS CLÉS:

- Over the last 36 years, the LACF has awarded \$1.125 billion (CAD) in research funding. | Au cours des 36 dernières années, la FAPC a accordé 1 125 000 \$ canadiens en financement de recherche.
- Over the past two years, it has allocated \$80,000 to research closely related to “natural capital.” | Au cours des deux dernières années, elle a versé 80 000 \$ à des projets de recherche liés étroitement au « capital naturel ».
- Jenny Hill, Jennifer McWhirter, Corey Dawson, and Tyler Bradt are recipients of the 2025 grant, with upcoming projects focused on “natural capital” research that everyone must follow. | Jenny Hill, Jennifer McWhirter, Corey Dawson et Tyler Bradt sont les bénéficiaires de la subvention 2025. Les projets porteront sur les principes du « capital naturel » à respecter.

## EXTRACTION DE DONNÉES : Étude tendancielle du « capital naturel » en architecture paysagère dans le cadre des projets financés par la FAPC

FR  
DEPUIS 1989, LA FAPC a versé 1 125 000 dollars (CAD) en subvention de recherches à des architectes paysagistes et des disciplines connexes au Canada. Cependant, les répercussions des projets financés n'ont pas été suivies.

La recherche influence la pratique, et vice versa. En tenant compte des recherches en cours, il est donc possible d'améliorer nos connaissances ainsi que nos méthodes de conception et de construction. Notre étude (Vincent, Carolina et moi-même) vise à définir la situation (qui, quoi, comment et où) de la recherche en architecture paysagère au Canada. Nous utilisons la « bibliométrie », qui consiste à saisir les titres et les descriptions des projets antérieurs dans une base de données en vue de définir les tendances thématiques et mesurer l'incidence des projets en fonction des articles publiés. Ainsi, nous tenons compte d'un large éventail de sujets, et l'incidence est mesurée selon le nombre d'articles scientifiques publiés dans notre domaine. La recherche établit une base de connaissances qui oriente les décisions conceptuelles et promotionnelles, et prévient les erreurs récurrentes dans le domaine de l'aménagement. Certes, cette approche néglige les balados, les sites web et les œuvres artistiques, comme les sculptures, mais les travaux publiés nous aident à définir les domaines d'intérêt.



### FOUR KEY CONCEPTUAL NOTES | QUATRE NOTES CONCEPTUELLES:

- Research on research will help LACF and CSLA track trends and support for future research in landscape architecture in Canada. | L'étude sur la recherche permettra à la FAPC et l'AAAP de suivre les tendances et de soutenir les recherches novatrices en architecture paysagère.
- Tracking the impact of research in landscape architecture will highlight strengths and help us identify and better understand understudied spaces or regions. | Le suivi des tendances en recherche précisera les points forts et nous aidera à déterminer les espaces ou les régions sous-étudiés.
- Valuing research involves understanding and safeguarding our disciplinary knowledge, developing landscape archives, and preparing the next generation to utilize them. | Pour valoriser la recherche, nous devons synthétiser et sauvegarder nos connaissances disciplinaires, développer des archives paysagères, et transmettre ce savoir à la prochaine génération.
- Supporting research involves recognizing significant scholarship within the CSLA and tracking LACF grant outcomes. | Soutenir la recherche c'est reconnaître les bourses d'études de l'AAAP et assurer le suivi des subventions de la FAPC.

### PROLOGUE

#### LACF Grant Trends: Natural Capital

None of the LACF grant titles or descriptions since 1990 explicitly mentions “natural capital” as a primary focus (see, lacf.ca/grants-portfolio). However, from the outset, the LACF supported research related to the study and rehabilitation of natural spaces, including Grant #1 for the Beluga Whale Fund to the AAPQ and Grant #9 for Water Edge Habitat Design to Colleen Mercer Clark. Furthermore, over 80% of the grants awarded in the last two years, totalling \$80,000, focus on various elements associated with the value of our natural assets, including land, water, air and renewable and non-renewable resources.

The 2024 and 2025 subjects include common landscape research areas such as landscape planning and landscape ecology (covering landscape change, fragmentation and measurement: Grants #188; #192; #194; #200; #204) and conservation/restoration ecology (addressing climate change, invasive species, biodiversity protection and low-impact development: Grants #189; #193; #195; #197; #198; #202; #205). Additionally, some projects explore topics related to public health, leisure sciences and planning (focusing on physical activity and health: Grants #199; #201; #203). Interestingly, we have seen a rise in “digital” projects utilizing remote sensing and AI over the past two years, potentially signaling future research trends. The results of our project, Grant #196, will be available this fall. LP

Heather Braiden is a professor of landscape architecture and co-chair of the MLA program at the University of Montreal. Vincent Larivière is a professor of information science at the University of Montreal, where he holds the UNESCO Chair on Open Science. Carolina Pradier is a Ph.D. candidate in information sciences at the University of Montreal.

#### Tendances des subventions de la FAPC : Capital naturel

Depuis 1990, aucun titre ni aucune description des subventions de la FAPC ne mentionne le « capital naturel » comme principal objectif (voir FAPC.ca/grants-portfolio). Toutefois, l'étude et la réhabilitation des milieux naturels intéressent la FAPC depuis le début: subvention n°1 – Fonds pour les bélugas à l'AAPO, et subvention n°9 – Conception d'habitats riverains à Colleen Mercer Clark. Plus de 80 % des subventions accordées depuis deux ans (soit 80 000 \$) portent sur la valeur de nos actifs naturels, notamment la terre, l'eau, l'air et les ressources renouvelables et non renouvelables.

Les sujets de recherche pour 2024 et 2025 portent notamment sur l'aménagement et l'écologie des paysages (dont l'évolution, la fragmentation et les mesures d'aménagement : subventions nos 188, 192, 194, 200 et 204), et la conservation/restauration écologique (changement climatique, espèces envahissantes, protection de la biodiversité et développement à faible impact : nos 189, 193, 195, 197, 198, 202 et 205). De plus, certains projets explorent des thèmes en santé publique, en récréologie et en planification des loisirs (centrés sur l'activité physique et la santé : subventions nos 199, 201 et 203). Fait intéressant, depuis deux ans, nous constatons une augmentation des projets « numériques » utilisant la télédétection et l'IA. Possiblement une nouvelle tendance en matière de recherche. Les résultats de notre projet, subvention n°196, seront disponibles cet automne. LP

Heather Braiden est professeure d'architecture de paysage et codirectrice du programme de MAP à l'Université de Montréal. Vincent Larivière est professeur en sciences de l'information à l'Université de Montréal. Il est titulaire de la Chaire UNESCO sur la science ouverte. Carolina Pradier est candidate au doctorat en sciences de l'information à l'Université de Montréal.



natural capital  
capital naturel

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sales@canaansf.com

# NEXT STEPS IN THIS RESEARCH

## Promote with catchy title: **LACF Grants: Taking root**

1. Meet with the LACF Board to discuss the revised “topic” and understand priority areas.
2. Rayonnement 2 + 3:
  - a) An additional article on the evolution of landscape knowledge is underway.
  - b) A second is foreseeable.
3. Identify “places” that are studied:
  - a) International
  - b) National
  - c) Regional
  - d) Over/under studied

# SIGNIFICANCE TO LACF

## LACF Grants: Taking root

1. Develop: A comprehensive reading list of “impactful” articles and books for emerging scholars.
2. Consider: Funding line for post-occupancy studies.
3. Protect: Knowledge base.
4. Value partnerships: Seed money as matching funds.
5. Understanding the spaces we know, and those we don't.
6. Invest in training, including Ph.D. programs.
7. Support scholarly publication: CELA, start something new?  
Modify L/P?
8. Create a prize for the best scholarly article at the CSLA awards, or make it an LACF initiative for the “most impactful” grant.

# TRACKING THE IMPACT OF RESEARCH: Quantifying the results of LACF- funded research project in landscape architecture in Canada

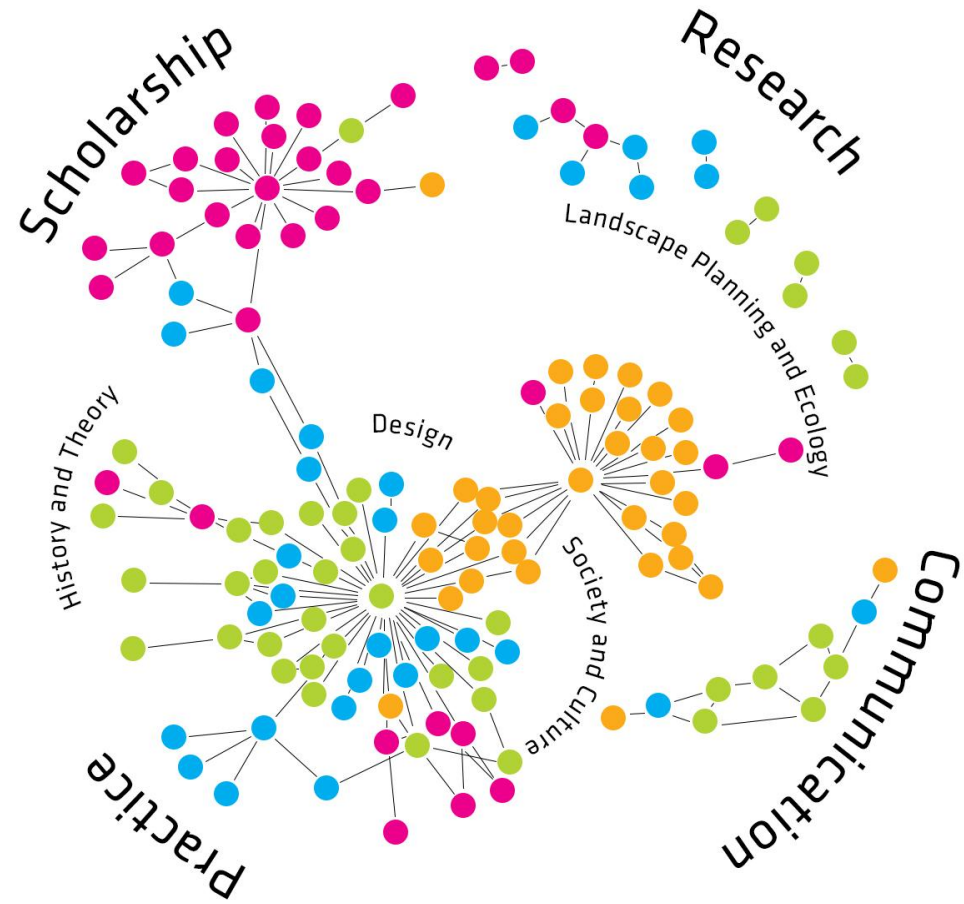


Diagram: Ryad Benzerzoura

Heather Braiden & Vincent Larivière  
2024