

Sustainability Project Fund Application

Applicant/Project Leader: Professor Vikram Bhatt
McGill School of Architecture
Director, Minimum Cost Housing Group

Contact Information:

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Project Title:

Making the Edible Campus: A Model of Urban Agriculture for Montreal and Beyond – Phase II

Total Project Budget: \$169,040

Budget Requested from the Sustainability Fund: \$127 444

Confirmed Outside Funds: \$41,596

Project Group:

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Project summary: This is the second phase of a multi-year project to enhance and expand the Edible Campus Garden and to use the project to reach out to a wider community with the help of educational initiatives: posters, publications and interactive panels. Our goal is to make the Edible Campus Garden into a real “showcase,” a model of effective urban agriculture for the McGill community, the city and beyond. The total cost for the second phase of this ambitious project is estimated to be \$160,990 of which we have already secured \$40,546. We are requesting a sum of \$120,444 over two years from the McGill Sustainability Projects Fund.

I. Project Overview and Project Implementation

Project Background: The Edible Campus Garden is a true partnership between the McGill School of Architecture's Minimum Cost Housing Group and Santropol Roulant. This celebrated project seeks to

involve citizens in the creation of green, edible community spaces by demonstrating how productive planting can be woven into urban spaces without diminishing their utility or functionality (see **Appendix 2** for coverage of the project). While exploring strategies for increasing food production in the city, we also seek to improve the spatial quality of underutilized and neglected spaces. The project forms a part of a sustainable urban food cycle that includes food production, preparation, food delivery, and composting. The garden started off-campus but was moved to McGill in 2007. The Burnside Hall Terrace was chosen after surveying a number of potential sites on and around campus. McGill generously granted us full use of the space. Today, it comprises over 275 self-watering containers and two 100m² rock basins, recently converted into raised beds for productive planting. Remarkably, the garden, tended by volunteers during weekly volunteer shifts, provides a third of the vegetables used by Santropol Roulant's meals-on-wheels kitchen over the summer months. In addition, a portion of the harvest is distributed fresh to client-members and to residents of Little Burgundy, a low-income neighbourhood recognized as a “food desert,” where sustainably grown fresh produce is hard to come by.

In our first year of funding from the MSPF, we expanded our garden with the addition of 60 semi-hydroponic planter boxes and the conversion of a rock basin into raised beds for the planting of a perennial herb garden. We grew one tonne of vegetables in 2010! We also improved garden signage and general project communications. Finally, we continued to offer workshops, garden visits, volunteer garden shifts and public events.

***For details of what was achieved to date in Phase I see attached Summary Report.**

Learning From MSPF Feedback:

Last year's proposal to the MSPF generated a great deal of useful feedback. At the review committee's request, we phased our project to allow for incremental growth. This year's proposal includes many of the same ideas found in our original application. The proposed work would be completed over next 2 seasons, but we are requesting a 2-year funding commitment. Securing multi-year funding would allow us to focus on the job at hand without the distraction of looming funding gaps. Our project requires consistent and reliable coordination, which can best be assured through the hiring of a paid coordinator. For each year, we have requested salary over a 9-month period, which is the duration of the gardening season (including spring planning and fall wrap-up). We are conscious that the future of the fund is uncertain beyond the year 2012. From our perspective, when the MSPF funding runs out, we will simply have to make up that difference elsewhere – a process which we will commence immediately after we get your approval. We have done it before and we can do it again! We promise to keep MSPF informed of these efforts and have included a post-MSPF succession plan for this reason.

In fact, using the leverage provided to us by our MSPF grant, we have already been working hard to cultivate existing funding relationships and secure new sources of funding for the future. We have taken steps to develop our own auto-financing activities, such as our Iron Chef third party fundraiser. Finally, it should be noted that many of the costs incurred as part of our proposal to the MSPF are one-time expenses (e.g. rock bed conversions already done, and now, greenhouse, semi-permanent planters, and so on).

On a more practical note, at the suggestion of the committee, we spent 2010 laying the groundwork for potential additions and enhancements to the Edible Campus Garden. We developed a relationship with the MacDonald Campus Apiculture Association, inviting them to give a workshop on urban beekeeping during an organized outing to their apiary in Ste-Anne-de-Bellevue. We also completed designs for the “showcase garden strip” along the west side of Burnside Hall.

Finally, we worked with a group of students from the McGill School of Environment to explore how we could better integrate the Edible Campus Garden within the McGill community. The results of this student-led research project helped us gauge interest in the idea of a community plot and provided us with ideas for student internship possibilities and deeper volunteer engagement.

Proposal to the McGill Sustainability Project Fund: Our proven ability to fundraise and secure needed resources, our track record of sound project management and our past successes in engaging the broader McGill community should be enough to convince the MSPF Committee that this popular initiative will continue well into the future, with or without the support of the McGill Sustainability Projects Fund. That said, at this time, we are looking to the McGill Sustainability Projects Fund for two-year funding to expand Edible Campus Garden. Specifically, money from the fund would help us build on our original objectives, which were to: 1) enhance, expand and consolidate our current work in the garden; and, 2) use the project to reach out to a wider community with the help of educational initiatives, including posters, publications, interactive panels, workshops and public events throughout the growing season. In pursuing the above objectives, we hope to make the Edible Campus into a real “showcase,” a model of effective urban agriculture for McGill, city and beyond.

Strengthening of the model garden: In addition to continuing the current activities of the Edible Campus, it is proposed to add the following:

- a garden strip along the western wall of Burnside Hall, featuring the addition of semi-permanent custom made planter boxes, and other architectural features such as pergolas and trellis systems
- addition and/or replacement of 50+ new self-watering containers
- addition of an on-site community greenhouse, with potential to be shared with other community type garden projects on campus (i.e. student group Campus Crops)
- the hiring of a full-time garden coordinator

Increase involvement from the McGill community:

- for credit student research on urban agriculture, including a continued focus on coherent aesthetics and design
- improved informative and learning panels
- allocation of a small shared garden space for use by interested McGill community members
- 2 student internship positions

Expansion and consolidation initiatives:

- new fruit bearing bushes in the smaller rock basins on the western side of Burnside Hall
- a pilot beekeeping project on the roof of Burnside Hall or more appropriate site (inspired by a collaborative project between Toronto's Food Share and the Fairmount Royal York Hotel. See http://springwise.com/food_beverage/royalyorkbees/)

Project Eligibility: Highly visible and fully accessible, the Edible Campus Garden seeks to inspire. It is the perfect combination of both form and function. Our garden programming will connect urbanites to the source of their food. We hope that the project will inspire McGill community members to rethink their daily food choices, perhaps attempting to grow their own food at home. The Edible Campus garden is an example of urban agriculture, a recognized strategy for sustainable development. Namely, urban gardens such as ours help mitigate the heat island effect and minimize rainwater runoff. Locally grown food means lesser food miles and associated greenhouse gas emissions. Employing only natural gardening methods, our vegetables are free from harmful petro-chemical fertilizers and pesticides. Our garden is non-mechanized and relies on manual labor, whereas conventional agriculture is heavily reliant on fossil fuels to run its tractors and other large machinery. Our garden is exceptional in its ability to engage volunteers, be they from McGill or from the community at large. It is an outdoor

classroom, with potential interest to students and professors from a broad range of faculties. Situated in the heart of Montreal's downtown core, it acts as a public showcase for urban agriculture and city greening. We believe it has already helped shape a culture of sustainability on campus, and that through continued innovation and a welcoming attitude, it will continue to do so over the years to come. Photos from our 2009 and 2010 seasons can be found at: <http://www.flickr.com/photos/srgarden/>

Timeframe/Milestones/Tasks and Responsibilities: These latest improvements to the Edible Campus Garden are planned over the next 2 growing seasons. All aspects of the project, including the initial design phase, are to be led by Prof. Bhatt with the participation of students from the School of Architecture and other academic units. Student involvement is to be assured and strengthened via research assistantships and fellowships. Santropol Roulant will assume the horticultural aspects of the project, as well as volunteer coordination and community events.

An evaluation will be conducted near the end of the second year and a decision made on continued funding for the project. A progress report will be submitted at the end of year one. Please consult **Appendix 1** for the project timeframe, with milestones for key actions and deliverables, as well as key performance indicators, communication strategies, and group member in charge.

Stakeholders: Following are the key stakeholders of this project and their respective roles:

McGill School of Architecture's Minimum Cost Housing Group: Prof. Vikram Bhatt, Director of the Group will lead the project, provide general direction and oversight, act as a liaison with the university's administration, and will steer research efforts and student involvement. Leila Farah, RA who has coordinated a number of such projects for the group will help oversee designs of this project.

Santropol Roulant: Santropol Roulant will be responsible for the technical aspects of the project, including the set-up, planting, cultivation, harvest, volunteer recruitment, public engagement. We will work in close consultation with the McGill Facilities Office and the Horticultural Supervisor. Santropol Roulant's contributions to the project include technical expertise, but also funding (materials, equipment and salaries), and in-kind donations, principally in the form of volunteer labour. Santropol Roulant is an equal partner in this project and will manage it jointly with the Minimum Cost Housing Group. The Edible Campus Garden is part of Santropol Roulant's modeling of a sustainable urban food cycle, including food preparation (hot meal service), waste management (worm composting), food delivery (by foot or bike), and food production (the garden). See Appendix 4 for letter of support.

McGill Facilities Office (VP Jim Nicell, Chuck Adler, Radu Jaster): This Office will advise our team in the continued development of the Burnside Terrace and other open spaces on soon to be Car-free lower Campus of McGill. Mr. Jaster has met with the Edible Campus team to discuss the ideas included in this proposal, particularly addition of the greenhouse, and has given it his approval and support. Assistant Vice-Principal Jim Nicell and Chuck Adler have also been kept informed and are fully supportive of the project. See Appendix 4 for letter of support.

Horticultural Supervisor McGill (Eric Champagne): He will assist our team in acquiring necessary materials: soil, compost, storage bins, etc and with the removal or organic waste for composting. We have worked closely in the past and he and his team fully support the project.

Campus Crops: It is a student-run urban gardening initiative at McGill's downtown campus. Since 2008, they have tended a small plot behind the School of Environment. In 2010, they added a small container garden near the Wong Building. Their garden harvest is given to the Midnight Kitchen. Over

the past few seasons, Campus Crops and the Edible Campus Garden teams have collaborated on numerous projects including horticultural workshops and a Fall Harvest Party. This proposal calls for continued collaboration between the two groups, with specific regards to the proposed on-site greenhouse. See Appendix 4 for letter of support.

II. Financials: Expenses and their respective sources are outlined in the table below. Please note that the financial details are over a 3-year period.

EXPENSES

Garden Coordinator Salary	\$58 644 (\$29 322/9months x 2 yrs) \$19 548 (\$9 774/3months x 3 years)	MSPF Santropol Roulant
Graduate Student Assistantships	\$12 000 (\$6 000/year x 2 yrs)	MSPF
Summer Student Internships	\$12 000 (\$6 000/year x 2 yrs)	MSPF
Materials: soil, compost, perlite, fertilizer, seeds, etc	\$7 000	MSPF
Pilot Beekeeping Project (consultant honorarium for professional beekeeper, etc)	\$2 000	MSPF
Equipment: garden tools, new containers, hives for beekeeping project, etc	\$6 000	MSPF
Planting: perennials, fruit bushes	\$5 000	MSPF
Greenhouse (8x14')	\$10 000 (http://cedarbuilt.homestead.com/)	MSPF
“Showcase Garden Strip” (planters, pergolas, etc)	\$10 800	MSPF
Signage and panels publicity	\$3 500	MSPF
Transportation	\$500	MSPF
15% administrative	\$22 048	Santropol Roulant

REVENUES

McGill Sustainability Program	\$127 444	Requested from MSPF
Santropol Roulant (EJLB Foundation)	\$31 596	confirmed
Santropol Roulant (Evergreen Foundation)	\$10 000	confirmed

Qualifications of key group members:

Vikram Bhatt, is a Professor of Architecture and he also directs activities of the Minimum Cost

Housing Group, a research unit with an international orientation that focuses attention on the human settlement problems of the poor. Since 2000, his team has done pioneering work in the field of urban agriculture, including Making the Edible Landscape project that integrated productive growing in three cities on three continents. In addition, he has lead several other urban agriculture projects in Montreal: A Study of Montreal's Community Gardens, Nutri Centre a collective garden in Ville La Salle, Paysage Solidaire 2008-13 program to advance community based growing ops in Mercier-Hochelaga-Maisonneuve district and last but not the least, the Edible Campus project of McGill University.

Tim Murphy, a graduate of the McGill School of Environment, is the Director of Sustainability at Santropol Roulant. He has worked as part of the Edible Campus Garden team for the past five growing seasons, coordinating volunteers, tending to the plants, and organizing workshops and events. While at McGill was a coordinator of Greening McGill, a QPIRG board member, and an active leader in the student-led campaign for an environmental policy. Tim has over 10 years of experience working in the not-for-profit community sector, having previously worked as a National Coordinator for the Sierra Youth Coalition. He is the Coordinating Editor of *To The Tar Sands*, Lorimer Press.

Rayna Goldman, has been an active in the non-profit sector in Canada and the United States since 2001, having focused much of her career on education reform in the inner-city communities of New York and San Francisco. After pursuing a Master's degree in Non-Profit Management at New School University, she took on project-based work with Tibetan refugee communities. Such initiatives included program development for the Tibetan Health Initiative at the Gere Foundation, consulting for The Missing Peace and event coordination for Healing the Divide. She moved back to her hometown Montreal in 2007, worked at Concordia University, and founded Bicycles for Humanity Montreal, a grassroots initiative dedicated to collecting and shipping used bicycles to Africa. As the new Executive Director of Santropol Roulant, she is excited to help support the organization's award-winning community-building practices while advancing its steadfast commitment to food security and sustainability.

APPENDIX 1

DETAILED TIMETABLE OUTLINING: ACTIONS, OUTCOMES AND RESPONSIBILITIES

April 2011	November 2012	Garden Coordinator assumes duties	-periodic evaluations and reporting	-articles in campus publications -public events -speaking engagements	Tim Murphy
April 2011	November 2012	Continuation of existing activities	-200+ volunteers in garden -1000+ of visitors to garden	-volunteer opportunities -garden tours and visits -public events	Tim Murphy + Rayna Goldman
April 2011	June 2012	Replacement and/or addition of 40+ new self watering containers	-increased harvest -diversity of harvest (30+ species planted)	-volunteer opportunities -garden tours and visits -public events	Tim Murphy
April 2011	November 2012	On-campus composting of garden waste	-organic matter composted (in weight) -home made compost used as fertilizer in garden (in volume)	-volunteer opportunities -garden tours and visits -public events -poster	Tim Murphy
April 2011	-	Installation of a greenhouse	-seedlings started over course of growing season	-volunteer opportunities -garden tours and visits -public events -website and other publicity	Tim Murphy
June 2011	October 2011	Final designs for "Showcase Garden Strip" along Western wall of Burnside Hall	Peer review process, comment period	Exhibition of plans in school of architecture	Prof. Vikram Bhatt
April 2011	November 2012	Furthered student research on urban agriculture	-2 projects/studies conducted per season -student interns	-research reports	Prof. Vikram Bhatt

			working on garden design and in garden itself		
June 2011	October 2012	Improved signage and informative panels			
May 2011	Fall 2011	Planting of small fruit bearing bushes in the smaller rock basins near the western wall of Burnside Hall			Prof. Vikram Bhatt + Prof. Vikram Bhatt
May 2011	October 2012	Pilot beekeeping project on roof of Burnside Hall	-forging of partnership with local beekeeper -honey harvested	Establishment of a beekeeping collective to assure proper care of hives (modeled after similar program at Toronto's Food Share) and hiring an experienced beekeeper to oversee the project and assure its success in the pilot year	Tim Murphy
April 2012	October 2012	Allocation of a small shared garden space for McGill community members	-# of gardeners -qualitative feedback from gardeners	-articles in campus publications -public events -speaking engagements	Tim Murphy
April 2012	October 2012	Completion of showcase garden strip along the western wall of Burnside Hall, featuring the addition of semi-permanent, custom made planter boxes and other architectural features such as pergolas and trellis systems, based on designs completed in year one	-survey of McGill community members		Prof. Vikram Bhatt

APPENDIX 2

Recognitions of the Edible Campus Project

Awards :

2010 “Le Jardin du Roulant,” Gala de reconnaissance en environnement et en développement durable de Montréal.

2008 “Making the Edible Campus,” National Urban Design Award 2008 in the category: Urban Fragments, by the Royal Architectural Institute of Canada, the Canadian Institute of Planners, and the Canadian Society of Landscape Architects.

2008 “Des jardins sur les toits,” Prix Phénix de l'environnement dans la catégorie Développement Durable.

Exhibitions:

2009 - 2010 Actions: What You Can Do with the City. Graham Foundation for Advanced Studies in the Fine Arts, Chicago, 16 October 2009 – 13 March 2010.

2009 Design Montreal. Montreal, May 2nd 2009.

2009 Carrot City. Design Exchange, Toronto, February 25 – April 30, 2009.

2008 - 2009 Actions: What You Can Do with the City. Canadian Centre for Architecture, Montreal, 26 November 2008 - 19 April 2009.

2008-9 “Making the Edible Campus.” Travelling exhibition across Canada, Royal Architectural Institute of Canada, the Canadian Institute of Planners, and the Canadian Society of Landscape Architects.

Publications:

Bhatt, Vikram. “The Edible Campus: Urban Greening at McGill,” *Landscapes, Landscape Architecture in Canada*. Winnipeg, Winter 2010, 24-25.

Bhatt Vikram, “Landscape and urban Design Adaptive to climate Change and Food Security,” *Landscape Architecture China: New Aesthetics and Ecological Urbanism*. Beijing, 13, 2010 No 5, 62-67. Beijing.

Bhatt, Vikram, Leila M. Farah, Nik Luka and Jeanne M. Wolfe. “Making the Edible Campus: A model for food-secure urban revitalization.” *Designing Edible Landscapes*. Open House International. 34.2. London, 2009: 81-90.

Bhatt, Vikram, Leila M. Farah, Nik Luka, Jeanne. M. Wolfe, Rotem Ayalon, Ismael Hauteceur and Jane Rabinowicz & Julia Lebedeva. "Reinstating the Roles and Places for Productive Growing in Cities." *The Sustainable City V. Urban Regeneration and Sustainability*. Eds. A. Gospodini, C.A. Brebbia and E. Tiezzi. Skiathos, Greece: WIT Press, 2008: 75-84.