

# Mapping our Common Ground

a community  
and green mapping  
resource guide



UVic Community Mapping Collaboratory  
Common Ground Community Mapping Network  
Green Map System





*Santiago Mapa Verde Launch, floor mapping*

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**a community and green mapping  
resource guide**

*Wendy Brawer, Ken Josephson and Maeve Lydon*



*Cool Share 3 D mapmaking, Japan*





# Mapping our Common Ground

## a community and green mapping resource guide

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**University  
of Victoria**



#### Uni101 program

*Art and sense of place: our wayfinding tree.*

*A collaborative, interactive mapping project  
from design to instalation.*

*University of Victoria, Canada*





# Introduction



This booklet is a guide to community and Green Mapping.

It is based primarily on the experiences of the Common Ground Community Mapping project (now network), the University of Victoria Community Mapping Collaboratory in Canada, and the worldwide Green Map System. These community and campus organizations have worked together since 1998, and collectively have supported thousands of requests from community groups seeking mapping project support and inspiration; this booklet is designed to address their needs and complement online resources. Originally published in 2006, a Spanish version was made available in 2007 thanks to the Cuban Mapas Verdes Network. This 2017 updated edition reflects the progress made in mapmaking and community mapping and its application to campus curriculum and research, and participatory planning and codevelopment.

Mapping our Common Ground is also intended to inspire and support “localization for sustainability,” the worldwide movement by citizens and communities to engage with and represent the vital interconnections between the human, natural, and built environments. Educators, community developers, planners, and community activists alike have tested the mapping exercises and applied them to real-life: from making an inventory of the personal gifts of youth in Victoria, Canada, to engaging seniors and youth in neighbourhood regeneration in Havana, Cuba, to converting vacant lots into community gardens in New York City, to identifying habitat for endangered species in Victoria Falls, Zimbabwe.

The core message is: We can all be mapmakers who create positive energy and action for our communities and the environment!

Think Global, Map Local! Visit our websites for more information and to offer your own stories.

**greenmap.org**

**mapping.uvic.ca**

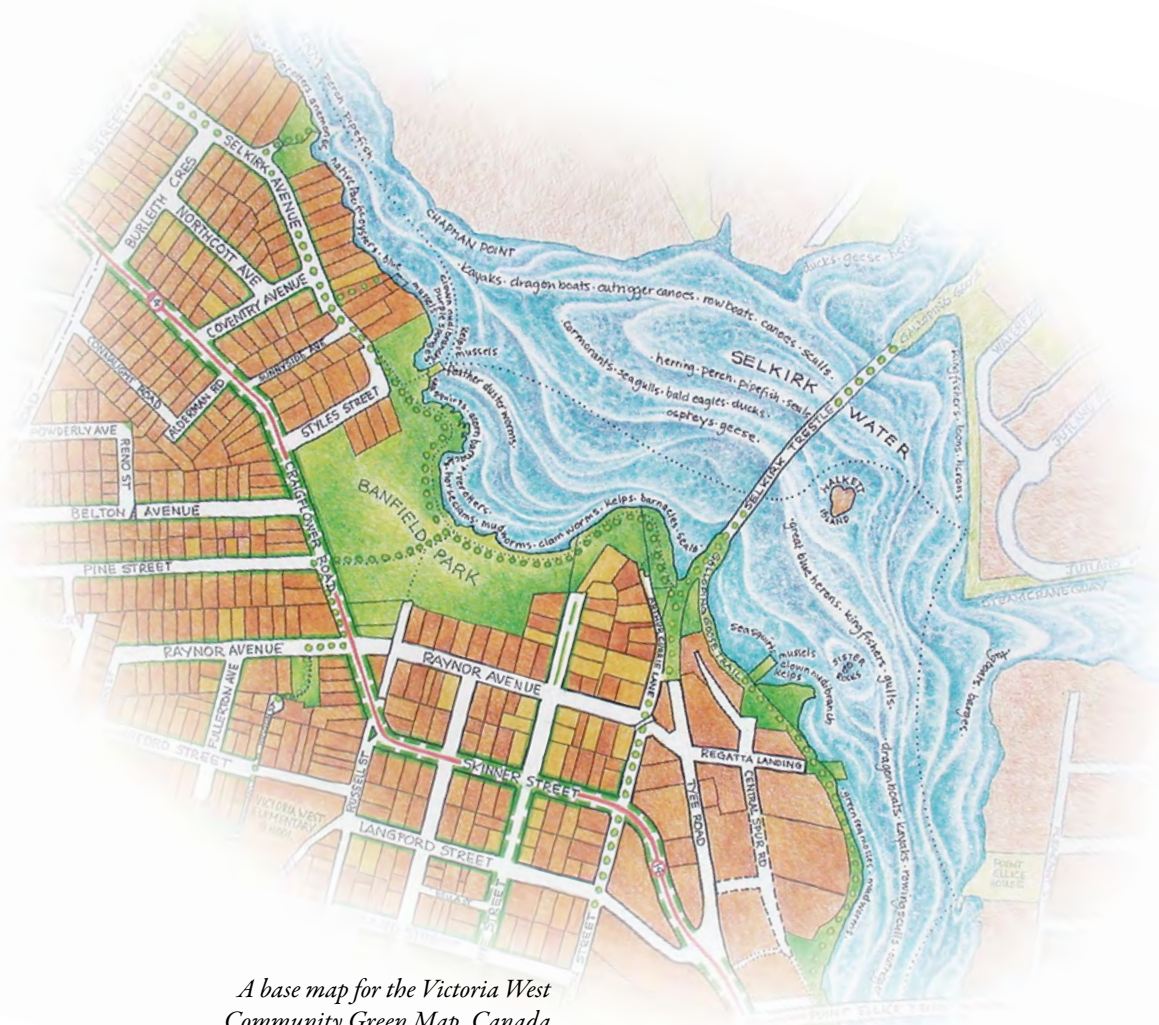
**Common Ground Community Mapping Network**



*Green Cities*  
by Beth Ferguson & Juan Martinez

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*A base map for the Victoria West  
Community Green Map, Canada  
by Jane Baigent*



# Mapping Our Common Ground

Community mapping is a graphic learning, development, and planning tool that connects people to one another and their home places. We are all mapmakers and any community can make maps. Community maps are the collective re-presentations of geography and landscape, and community mapping is the process to create such representations. Community mapping also tells the stories of what is happening right now and what may happen in the future. Every community has stories, recently or long buried in the lives and landscapes of our common ground. Community mapping connects geography to the history of our lives and the world around us.

## Why Maps?

Maps are graphic representations of our inner and outer worlds. Early humans developed mental maps as they developed language and spatial consciousness. In both oral and written traditions they named symbols, place names, individuals, and actions. To this day, maps maintain both cultural and practical applications. They are powerful navigational tools and can help guide our way in the world and in our daily lives. However, the map is only a picture in time and can never truly re-present the territory. The question is: Who makes the maps? Community mapping, as "spatial discourse", invites ordinary people to express their inner mental maps, their own visions, and values and to connect these to their everyday lives.

## What is a community?

Communities can be places or spaces where one identifies with and/or feels that one belongs. A community can be geographic (e.g., local, school, neighbourhood, regional, national), socio-cultural (e.g., ethnic, women, men, gay, youth, children), sectoral (e.g., education, recreation, government, police, health), ecological (e.g., bioregional, plant, animal, biosphere) or special interest (e.g., church, punk, soccer, birdwatchers).

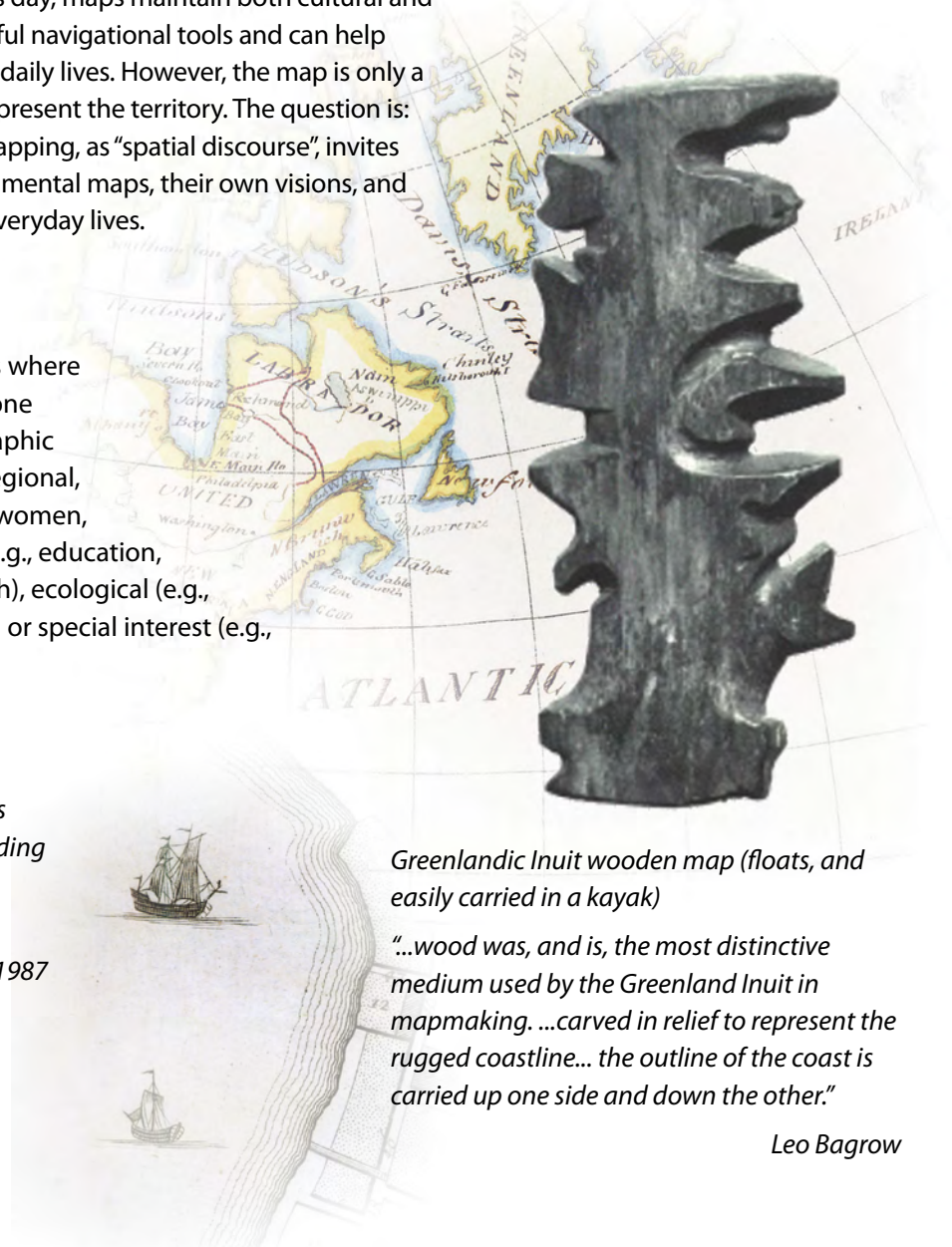
## What is a map?

*"Maps are graphic representations that facilitate a spatial understanding of things, concepts, processes or events in the human world."*

Harley and Woodward, 1987

*"Maps, like theories, have power by virtue of introducing methods of manipulation and control that are not possible without them. They become evidence of reality in themselves and can only be changed through the production of other maps and theories."*

David Turnbull  
Maps are Territories, 1989



Greenlandic Inuit wooden map (floats, and easily carried in a kayak)

*"...wood was, and is, the most distinctive medium used by the Greenland Inuit in mapmaking. ...carved in relief to represent the rugged coastline... the outline of the coast is carried up one side and down the other."*

Leo Bagrow

# Why Community Mapping?

Community and Green Mapping affirm the integrity and diversity of local places and people as the primary foundation for healthy community development and sustainability. In an age of globalization, monoculture, and virtual reality, we need such processes to reconnect ourselves to one another and our distinct and unique home places.

## Creates a Sense of Place

Maps are tools that shape our perception of place. All humanity, particularly the majority who live in cities, is challenged to protect, enhance, and create healthy social and natural environments. Community mapping provides an inclusive and graphic framework for people to share their experiences, knowledge, and vision about their home place.

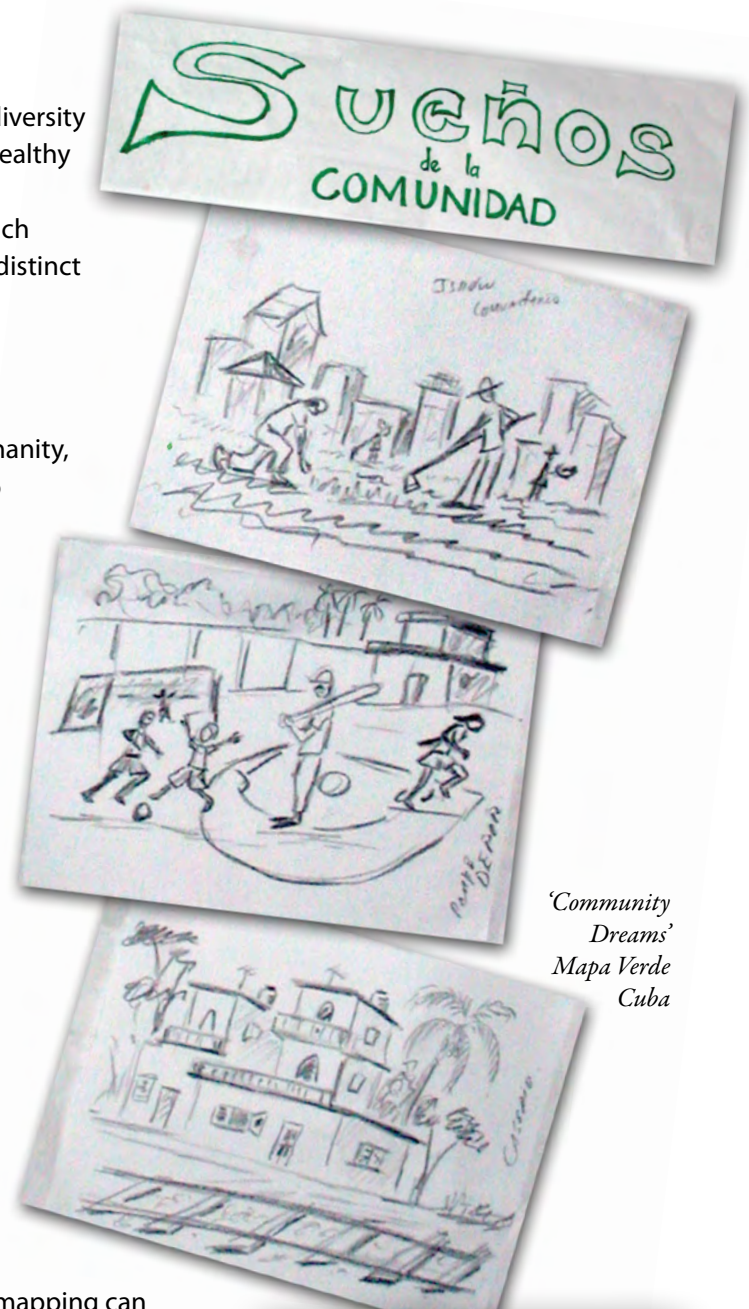
## Facilitates Dialogue

Community mapping is as much about process as it is about getting the map done. As a participatory and creative educational tool, mapping relies on the active engagement of participants to think together graphically and not just verbally. The process of map-making can bring together diverse perspectives and people to affirm different experiences and worldviews, to create dialogue and common understanding.

## Transforms "Reality"

Community mapping is about transforming power based on the re-presentation of personal and collective realities. For people concerned with development issues, mapping can be a powerful tool for community learning, planning, and development. Citizens locate and affirm the historical, physical, social, cultural, and even spiritual attributes of their home place. Through the process of naming their realities through the creation of maps, communities are better equipped to proactively plan their own lives and communities.

*Together the inventory and the dialogue about "the place we call home" can lead to new possibilities for nurturing healthy people, communities, and ecosystems.*



*'Community  
Dreams'  
Mapa Verde  
Cuba*

*"Social work needs the mobilization of power. Each one collaborates with what he/she can do or is able to offer. This way, the fabric that supports the action gets stronger and each one feels that they are a small part of the country's transformation."*

*Zilda Arns  
Brazilian physicist and  
National Coordinator  
of the "Pastoral da Criança"*



## Community Mapping Values

*cherishing the past,  
valuing the present,  
visioning the future*

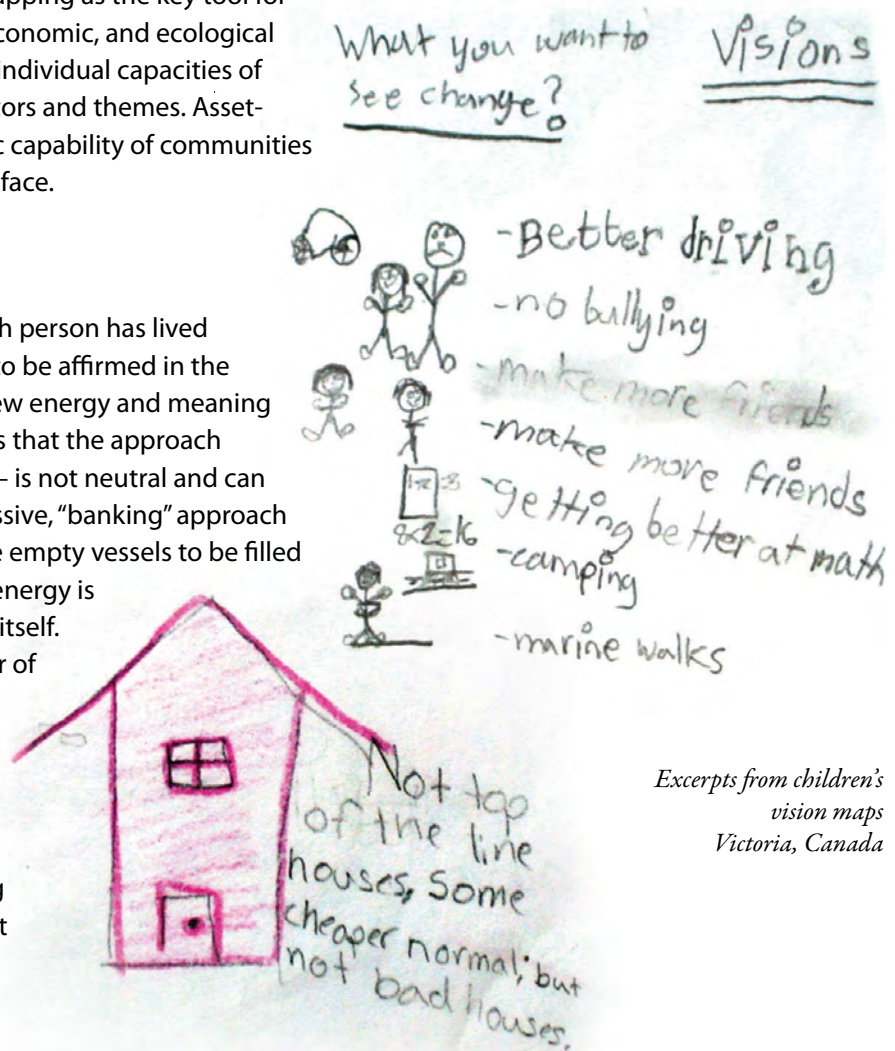
## Asset-based Development

The people-centred, participatory methodology behind community mapping is also popularly known as “asset-based” development. It is distinguished from needs-based, expert-led community development processes. Asset-based development provides a creative process through which communities can rediscover their local assets and mobilize their strengths to build more sustainable communities. Asset-based development is defined by three characteristics: (1) it starts with what is present, not what is absent; (2) it is internally focused to stress the importance of local definitions, visions, means and ownership of development; and (3) it is relationship-driven. In his book, *Building Communities from the Inside Out*, John McKnight identifies mapping as the key tool for identifying and mobilizing key social, economic, and ecological assets in a community, beginning with individual capacities of residents and extending to specific sectors and themes. Asset-based development affirms the intrinsic capability of communities to find solutions to the challenges they face.



## Transformative Learning

Community mapping assumes that each person has lived experiences, gifts, and ideas that need to be affirmed in the learning process if we want to create new energy and meaning together. Community mapping believes that the approach to teaching and learning – “pedagogy” – is not neutral and can energize or alienate the learner. The passive, “banking” approach to learning assumes that individuals are empty vessels to be filled with knowledge. However, nature and energy is constantly in change and transforming itself. Paolo Freire, the Latin American pioneer of transformational learning and popular education, believed in the power of people, particularly those suffering exclusion and oppression, to become active subjects rather than passive objects of history. Community mapping believes we all have the ability and right to name our own realities.



*Excerpts from children's  
vision maps  
Victoria, Canada*

## Community Mapping – Key Features

**Collaboration and Inclusion** Sustainable community initiatives are developed through a collaborative relationship among local stakeholders, recognizing the benefits and strengths of networking, learning from and sharing with other initiatives.

### **Participatory and experiential learning**

Community-based mapping values and engages the lived experience and experiential knowledge of all citizens

**Grass-roots driven** Communities maintain control of the process and the out-comes. Recognizes that those who live in a place are best able to make sustainable decisions about that place and to monitor social and ecological impacts.

### **Indigenous and Community Knowledges**

Recognizes that intimate knowledge of places and ways of living sustainably and respectfully lie in the cultural traditions, languages, and worldviews of many indigenous and traditional societies.

**Ecosystem-based** Grounded in ecological not only political jurisdictions. Strives to maintain the integrity of whole ecosystems.

**Global Context** Recognizes the global, social, and environmental context. Acknowledges that community development does not happen in a vacuum, but is constantly engaging global problems with local solutions.

**Self-reliant** Supports proactive initiatives that enhance community organization, economy, and identification with place.

**Open and inclusive** Creates cross-sectoral support to increase community access to information and resources.

**Holistic** Works towards an integrative approach to living that is developed on the bases of economic, social, and biological diversity.

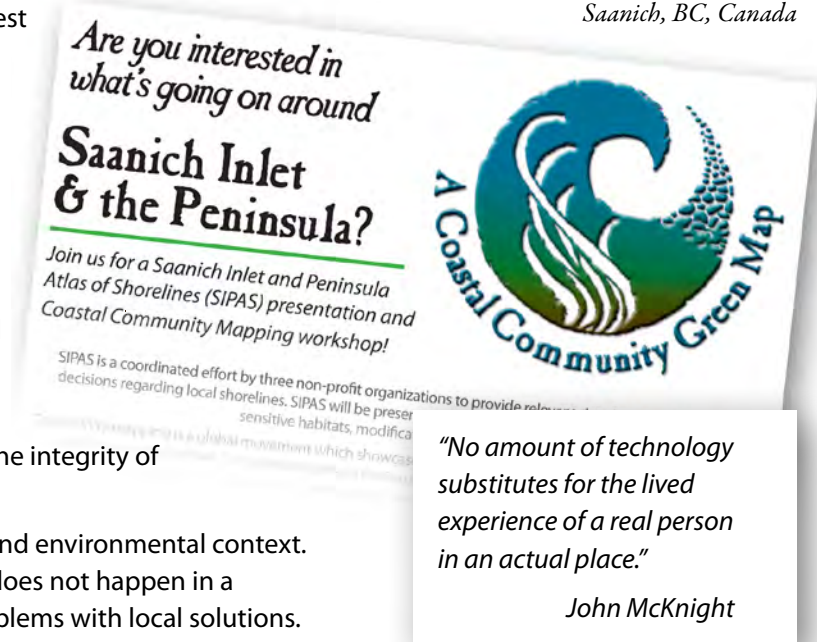
*“Somewhere between the rainbow and the internet, a place that is important to you is struggling to maintain its integrity...”*

*Whatever happens on the worldwide web, shards of histories, ecologies, economies and cultures are heaped and shifted on bits of land. Many of us understand ourselves in the world as much through a relationship with a patch of ground (or more than one) as with people. Indeed it is hard to separate them.”*

Sue Clifford  
Common Ground UK



*Choosing categories for the Coastal Community Green Map, Saanich, BC, Canada*



*WSÁNEĆ cedar harvesting at SNIDÇEL, BC, Canada*



# Community Mapping Stories

Community mapping activities support overall community building and planning. Almost anything can be mapped! Various frameworks or themes can focus community mapping efforts and help to support discussion about an issue such as land ownership or future planning goals. The mapping can be directly used to develop community action projects.



*"The maps become a source of collective knowledge about place – a level of knowledge that no single individual, corporation, or government agency is ever likely to match. This leads to empowerment, and to decisions about growth and development that better helps us to achieve the goals that most of us share: social justice and ecological sustainability."*

Doug Aberley, 2002

*"So much surveying, measuring, fact gathering, analysis, and policy-making leaves out the very things which make a place significant to those who know it well."*

Sue Clifford, Common Ground UK

## Theme and Project Ideas for Community Mapping

### Culture and Social Heritage

Community history atlases (settler and First Nations / Indigenous)  
Cultural restoration and justice  
Indigenous knowledge(s)  
Intercultural understanding  
Heritage site tours, websites, and booklets  
Seniors' memory books (interviews by local youth)  
Tourism

### Conservation and Sustainability

Alternative energy  
Community and native plant gardens, urban farming  
Environmental justice  
Food and water systems, security, sovereignty  
Greenways and green spaces  
Heritage plants, edible landscaping  
Insects, amphibians  
Local / migratory birds and butterflies  
Lost streams and lost species maps  
Remediation sites  
Resilience  
Toxic sites  
Underground water sources  
Wildlife corridors and migration routes

### Community Planning

Climate change adaptation, impacts, trends  
Emergency preparedness, plans, hazards  
Housing types, density (sprawl reduction)  
Land ownership, use, resources, cooperatives  
Local associations, organizations, sharing economy  
Parks, public space, assessment and use  
Participatory engagement, planning and visioning  
Placemaking  
Poverty, wealth (social justice)  
Societal change, scenario planning  
Societal impacts, trends  
Social justice, gentrification  
Traffic patterns, mass transit / bike lane studies

### Economic Development

Capital flow  
Resource use  
Local business, historic trends and opportunities  
Vacant lots, opportunity sites, and markets  
Income and demographic trends  
Green businesses and services  
Energy innovation, generation  
Fair and equitable trade

### Personal and Community Health

Personal assets and life journeys-visions  
Health trends and patterns  
Social inclusion (age, culture, gender, class, abilities)

## Conservation and Sustainability

The **Victoria Fruit Tree Project**, managed by the non-profit group LifeCycles, developed and uses a regional map and database of local fruit trees as a food security and harvesting project. Since the year 2000, approximately 25,000 pounds of fruit has been gathered annually by volunteers, with 25% going to the owners, 25% to the volunteers, 25% to local food banks, and 25% to social enterprises to support Lifecycles' work. Now this work has expanded to food gleaning from farms and food waste from stores. [lifecyclesproject.ca](http://lifecyclesproject.ca)

The dynamic South China Mangrove Conservation Network focuses attention on the many gifts of these coastal forests. Healthy mangroves are vital: they protect the land from tsunamis and pollution, while providing habitat for wildlife. The Network has created green maps that also include hand drawing to bring an inviting human touch to this important conservation practice.

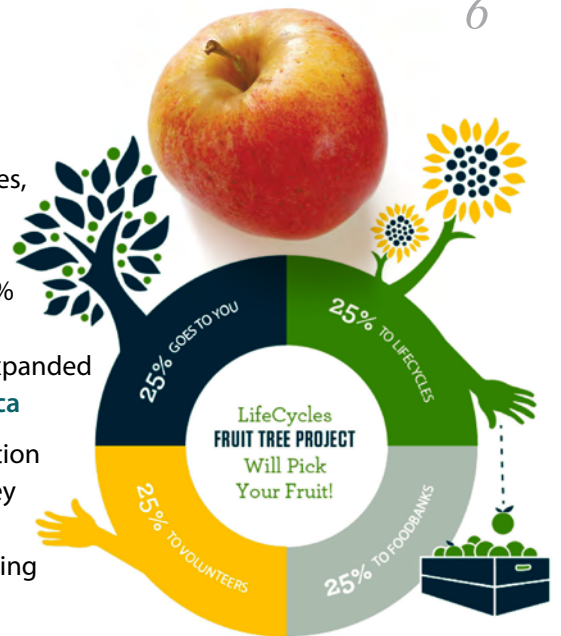
[china-mangrove.org](http://china-mangrove.org)

The Community Mapping Network (CMN) maintained by the BC Conservation Foundation helps communities map sensitive habitats and species distributions in British Columbia and Canada. Since 2000, the CMN has created community-based atlases with customized data entry and reporting tools. The atlases integrate many different data sources, including local and remote data sets, geo-referenced videos, and sensitive habitat mapping projects. The Atlas Gallery has more than 60 user-friendly atlases that use Mapguide Open Source. By providing accurate and up-to-date information, the CMN and its many partners help plan sustainable communities. [cmnbc.ca](http://cmnbc.ca)

## Culture and Heritage

The **Oak Bay Community Green Map**, created between 2006 and 2012 in Victoria, British Columbia, overlays Indigenous and settler heritage. The Indigenous peoples of this Pacific Northwest coastal region, called Victoria by British colonists, have lived here for thousands of years. Explorers followed by settlers arrived, renamed and altered the landscapes profoundly. The map includes Indigenous artwork and place names. The mapping process led to the establishment of the **Oak Bay Community Association**, whose members continue to reach out to local Indigenous communities.

In Kamakura, Japan, community members took 5 years to create their first Green Map. The process involved school children, senior citizens, university students, and others, all of whom explored the treasures of this ancient temple town in great depth. Astonishingly, the resulting map goes all the way back to the year 1180, with Green Map Icons tracing patterns of development. Even the city's unique mailboxes made it on this lovingly designed map!



**Saltwater People**, a memoir by **W̱SÁNEĆ** elder David Elliott Sr., records and maps some of the place-names and oral histories of the **W̱SÁNEĆ** First Nations traditional territory, a portion of which is referred to as Districts of Saanich within the Capital Regional District.

*"In such an era my grandfather, David Elliot Sr., began to think out and record his memoir style representation of Saanich History: The Saltwater People. This was an attempt to lay the foundational record of the settler's impact on traditional Saanich knowledge and on the **SENĆOŦEN**, the Saanich Language. The Saltwater People not only contained his memories, a unique phonic system for **SENĆOŦEN** and place names within traditional **W̱SÁNEĆ** Territory, it also offered his interpretation of our collective identity: We are the Saltwater People, a people who relied on our centuries-old knowledge for food, travel and the continuing development of our physical, mental and spiritual selves. In fact we once spent as much time on the water as we did on the land."*

Kevin Paul, **W̱SÁNEĆ** Nations





## Tourism

Interactive and printed green maps have been created to support responsible eco-tourism in cities worldwide, helping to connect visitors with authentic models they can bring home. Here are two very different approaches:

- As **The City of Cape Town** prepared to host thousands of FIFA World Cup 2010 fans, the Environmental Resource Management office collected green sites with the help of radio and social media outreach, and the company Map My Way. As the online Open Green Map expanded, beautifully designed citywide print editions were published annually, introducing both visitors and residents to biodiversity, design and other themes. Cape Town shared the design and branding of their popular website with the South African cities of Johannesburg and Durban, so each can more effectively promote sustainable living, social inclusion, and eco-tourism. [CapeTownGreenMap.co.za](http://CapeTownGreenMap.co.za)
- Find **Iceland's Green Map** online at [nature.is](http://nature.is) Amazingly, it features the entire country! Iceland's unique landscape made creating local icons an imperative, so volcanos, puffins, and more can be readily sighted. With their own interactive map platform and a multilingual App, the family business (also called Nature.is) behind the Iceland Green Map project has provided colourful and inviting printed editions, exhibits, graphics, cards, and other materials that impact visitors while also fulfilling residents' needs.



## Climate Change and Resilient Communities

In 2003, North America's "Great Northeast Blackout" inspired Green Map System to research and chart energy, climate change, conservation, and renewables in New York City. Focus groups helped fine tune the contents of this printed map so it tells a complex story through three themes: Energy Dark Sides, Everyday and Easy, and Energy Investments. In 2006, 100,000 copies were distributed, sparking action and diverse responses. Teachers requested tools, so a series of modules were designed to build students' understanding of the role of our daily choices on climate health.

[GreenMapNYC.org/get-involved/students-teachers/](http://GreenMapNYC.org/get-involved/students-teachers/)

In 2009, an easy-to-use interactive Open Green Map platform was launched by Green Map System. Open to public images, viewpoints and site suggestions, it helped many Green Map projects reach new audiences and more easily collect sites. With a multilingual interface, mobile Site Collector, and other features, The Open Green Map social mapping platform won eight international awards. Video: [bit.ly/naturegreen](http://bit.ly/naturegreen)

The NYC energy edition was one of the first Open Green Maps; today there are more than 400, made in 40 countries! Interactive widgets can be embedded in other websites so it's an easy way to continually add new energy-related sites, including some collected on bicycling and walking tours that explore new directions. After Superstorm Sandy in fall 2012, the high water mark was added so people could see the extent of the flood and impacted infrastructure long after the surge retreated. [OpenGreenMap.org/nycenergy](http://OpenGreenMap.org/nycenergy)



Then, as the city's Bike Share program was launched in spring, a new printed Green Map was published with support of Partnerships for Parks. Designed primarily for the residents of the Lower East Side, "Lower East Ride" was printed in English, Spanish and Chinese (in postcard and poster formats). This map highlights both the storm damage and the everyday benefits of bicycling to directly respond to climate change. These Green Maps have inspired other communities, from South Korea to Spain, to map out climate issues and countermeasures.

[bit.ly/climGM14](http://bit.ly/climGM14)



*These bike tours resulted in a 'how to' video [bit.ly/howtourGM](http://bit.ly/howtourGM)*

## Community Planning and Visioning

Community-based mapping projects focus on engagement, outreach, and participatory, democratic decision making to include as many citizens as possible in the planning and improvement or protection of their communities. The Shelbourne Corridor Action Plan began in 2010 led by the Municipality of Saanich, and used participatory community mapping, asset-based engagement, and affirmation of local heritage and volunteers as the foundation for the planning process, attracting an unprecedented number of local residents in the process. In 2015 the re-named and completed Shelbourne Valley Action Plan had directly engaged more than 1,000 citizens from diverse backgrounds in the most comprehensive participatory local plan in Saanich's history. [bit.ly/ShelbournePlan](http://bit.ly/ShelbournePlan)

## Visioning

On Vancouver Island, in British Columbia, Canada, the District of Saanich, village of Port Renfrew, and the 'Vic West' neighbourhood of Victoria used community mapping of personal, community, and environmental assets as the basis for their Community Vision Mapping Projects. "Cherishing the Past, Valuing the Present, and Visioning the Future" was the umbrella slogan for the projects. Activities included fun, all-ages, hands-on mapping events, walkabouts, focus groups, interviews with elders, community art and photography, and a consensus process to identify community action and renewal projects. See [mapping.uvic.ca](http://mapping.uvic.ca) for examples.



*Excerpt from the Shelbourne Valley Action Plan report and map*



## Placemaking

Placemaking is a core outcome and focus for many processes involving community mapping.

In the UK, **The Brighton Place-Maker-Space** (Place-making + maker-spaces = the Place-Maker-Space) is a collaboration between the **University of Brighton**, **Community21** initiative, and graduate social enterprises Blockbuilders and Exploring Senses, and is co-funded by the university, private sector, and through community consultation work. They use accessible technology and making methods to engage often disenfranchised, marginalized, or disengaged members of the community in making a difference through participation in generating meaningful visions for the future of the neighbourhood in which people live. This is propelled by the new UK government statutory Neighbourhood Plans, which require local communities to form 'visions' for the future of their community through participatory planning.



*Co-designing the future of the neighbourhood using 'dig-tools'*

## Personal and Community Health

The **Asset-based Community Development Institute (ABCD)**, located at the **Center for Civic Engagement**, Northwestern University in Evanston, Illinois, is at the centre of a large and growing global movement that considers personal and local assets as the primary building blocks of personal health and sustainable community development. Building on the skills of local residents, the power of local associations, and the supportive functions of local institutions, asset-based community development draws upon, and maps, existing personal and community strengths to build stronger, more sustainable and economically viable communities for the future. [abcdinstitute.org](http://abcdinstitute.org)



## Participatory Asset-Health Mapping **HealthyCity**

**Healthy City** is a US initiative that supports communities, particularly those facing health inequities, in identifying, organizing, and sharing their collective voice with decision makers at the local and state levels. Their approach is community- and place-based and supported by their online **Community Research Lab Toolbox**. Community-based organizations can use the concepts, methods, and tools provided, such as the *Community Research Toolkit* and *Participatory Asset Mapping Toolkit*, to host an event or activity that collects knowledge and experiences from community members about local assets. [bit.ly/ParticipatoryAssetMapping](http://bit.ly/ParticipatoryAssetMapping)



# Green Mapmaking

Over the past 20 years, a major international movement for community mapping has been developed by an evolving network of local project leaders and a New York-based nonprofit organization, Green Map System. Using maps as its medium of engagement, GreenMap.org's mission is to promote sustainability and community participation while building local capacity, networks, and knowledge. Designed with the network, the green map toolkit offers a global iconography, collaboratively developed resources, and an interactive "social mapping" platform that empowers local project leaders to create a fresh perspective on familiar places.

Green Maps function as practical guides to sustainable living while helping spread successful initiatives. Now, new open policies encourage more than mapping, and there's no fee to participate.

This is a locally adaptable, globally shared framework for environmental mapmaking. It invites people of all ages and diverse backgrounds to map their own local urban or rural community, campus, or club. Using Green Map's shared visual language – a collaboratively designed set of icons representing the different kinds of green sites, ecological, social and cultural resources – mapmakers are independently producing unique, regionally flavoured images that fulfill local needs, yet are globally connected.

Whether created in a single community workshop or the outcome of years of collaboration, the resulting Green Maps identify, promote, and link ecological and cultural resources. Printed, published on the internet, or made into a mural or poster, each locally made Green Map spotlights important issues and deepens involvement in positive social change. [GreenMap.org](http://GreenMap.org)







# Green Mapmaking Stories

A thousand printed and web-based Green Maps have been published! In addition to the hundreds of maps you can view online, 550 unique print edition Green Maps are archived in the Map Collection at the main New York Public Library. This archive includes 300 locally produced outreach and education resources. Green Mapmakers from Europe, Asia, and the Americas have shared their stories through blogs and social media, as well as through books and research papers (50 of which are now archived at the University of Victoria McPherson Library in British Columbia). Over the years, the network has formed regional partnerships to enrich their outcomes on participatory planning, placemaking, equitable and resilient community building, special events, local tourism, and to involve civil society in the process.

## New York Green Map Hub

Universally understandable. Resource efficient. Worldview-changing. Even back in 1992, maps have all these characteristics, and so, this ancient medium turned out to be ideal for connecting people with sustainable living sites around New York City. A green-minded design activist group led by Wendy Brawer produced the first citywide Green Map in 6 weeks in 1992. This citywide map sparked inquiries that led to the concept of a locally led global network connected by a shared set of map icons. As the network grew, the early adopters inspired one another and co-created community mapmaking methods and resources. The website, online since 1995 at [GreenMap.org](http://GreenMap.org), shares an adaptable mapmaking toolkit and promotes all the maps and other outcomes. Green Map became a non-profit organization in the year 2000.

New local NYC Green Maps were also created to test new concepts and involve more New Yorkers of all ages as well as visitors. Waste, energy, bicycling and youth views are among the themes of the organization's print and interactive maps, found at [GreenMapNYC.org](http://GreenMapNYC.org)

## From Mapping to Making

In 2015, Green Map System compiled a list of projects it had contributed to that resulted in the making of new green sites. "We made maps and provided other support to [Gardens Rising](#), a state-funded program to develop rainwater-collecting green infrastructure in community gardens (2015-2019); the [Stanton Building](#), a "climate action lab" for a community centre (2015-2019); Local Spokes – a bicycling equity program (2011-2013); R-951, NYC's first Net Zero Passive House residence (2012-2015);



*At the Archive Launch, historic maps of New York made participants wonder how the Green Maps will be received 400 years in the future*





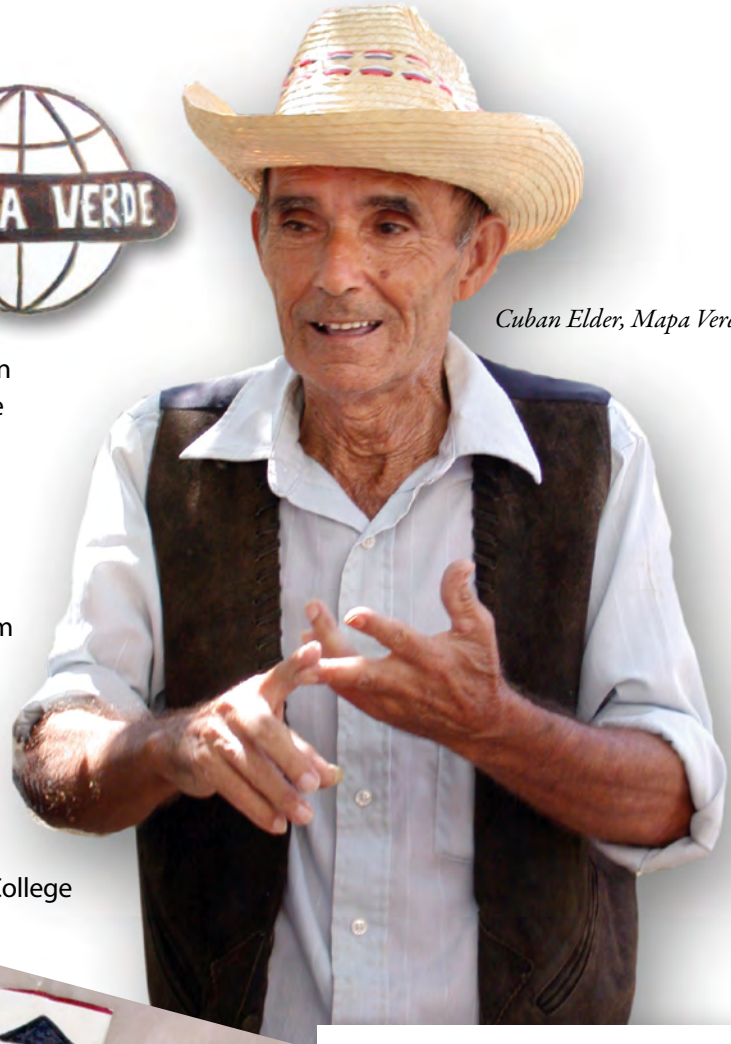
and realized we had expanded from mapping to making sustainable living resources," said founding director Wendy Brawer. "We also share our knowledge and help groups connect with experts, build capacity, and communicate between communities." Amplifying related green site development projects by Green Mapmakers around the world, "Green Making" has potential as an adaptable model, expanding notions of what can be accomplished by a local Green Map project.



*Cuban Elder, Mapa Verde*

## Engaging Students

The global office for Green Map System has been located on Manhattan's Lower East Side since program inception. Nearby universities (and occasionally, high schools) have provided interns that made remarkable contributions since the early days of the nonprofit. Summer and spring break programs have supported national and international interns, several of whom later created Green Maps. One example is Beth Ferguson, who won a stipend from Hampshire College to intern when she was a third year student. Her campus and community Green Maps became part of her senior thesis. Later, she joined the Green Map staff and led the LoMap project (see below), worked with the wonderful community leading the Mapa Verde Cuba project and even created illustrations for this book! More than 100 interns have worked at Green Map System!



*"We liked the Green Map System's possibilities of establishing a relationship of exchange between North America and Cuba and the global ecological movement. It seemed to be a good way to exchange environmental education methodologies and experiences as well as share our sustainable development work with the world."*

*Liana Bidart Cisneros, Mapa Verde Cuba coordinator*

## Cuba

Cuba is a country with rural and urban Green Map projects in all of its 14 provinces. Their network is called Mapa Verde Cuba. The Island of Cuba and its small surrounding islands with a population of 11 million can be found in the Caribbean. Cuba is known for its beautiful nature, special flora and fauna, its appreciation for science, and great diversity of natural resources. Cuba's greatest richness is in its people who are a magical mix of native Indigenous people, Spanish, African, and Chinese, and this is reflected in its culture and idiosyncrasy.

After an inspiring visit to Cuba in 1998 by Wendy Brawer, Mapa Verde Cuba



was initiated in 1999, simultaneously in the cities of Holguín and Havana, by city youth group leaders. Shortly thereafter, the Mapa Verde Cuba Network took shape in community after community. The Network, with the support of the Centro Felix Varela, coordinates workshops, learning, and resource development for the whole country.

The **Centro Felix Varela** has coordinated workshops and resource development in schools (all levels), and in cultural, social, and scientific institutions. They have documented the outcomes of more than 100 projects in video and digital newsletters, and a special 15th anniversary methodology book. [cfv.org.cu](http://cfv.org.cu)

Other institutions involved in the Cuba Green Map network include **Institute of Ecology and Systematics**, the **National Council of Arts Centers**, Cuban schools and universities and the global Green Map System.

**Mapa Verde Cuba** attributes the success of the project to the strong environmental and social values of the Cuban people. The outstanding work of Mapa Verde Cuba is made possible by project leaders who have shared their work over the years, leading to new initiatives across the island. Mapa Verde Cuba would like to continue creating exchanges with other countries to share and develop their work.

Led by biologist Liana Bidart Cisneros, Mapa Verde Cuba has inspired many community/green mapping projects for sustainable community development, planning and conservation, and for school and university learning and projects.

## Brazil

Although there is no active central leadership in Brazil, new groups inspired by Cuba and Campinas Brazil Green Mapmaker, Leo de Mello, have become involved, including Piracicaba (a Sao Paulo satellite city), where the NGO **Instituto Ambiente Total** has created several **Green Maps** with diverse community groups; and Curitiba, which is a university-based, multi-disciplinary effort that centres on participatory practices. Featured in the Green Map Impacts book, this project has mapped the neighbourhoods around the various branches of the Federal University of Parana throughout a city known for its advanced, inclusive urban planning.

[ambientetotal.org.br](http://ambientetotal.org.br)

Curitiba, Brazil GreenMap [bit.ly/CuritibaGreenMap](http://bit.ly/CuritibaGreenMap)

## Europe - The 4Bs Hive

The **4Bs Hive** collaboration involved four European Green Mapmakers who jointly applied for a Gundvig “mobilities” grant. With funding in hand, each of these riverside cities: Berlin, Germany; Budapest, Hungary; Bristol, UK; and Bistrita, Romania took part. A large and culturally



*Local icons, Rio de Janeiro*



*Curitiba, Brazil  
Green Map 2013*



diverse group of adult learners explored each city. They gained technical experience and co-developed four different types of Green Mapmaking methodologies. A wonderful film was produced as was a multilingual book, the *4B Hive Guide to Green Mapmaking*. Now translated into Chinese, Hebrew and Spanish, the outcomes of this multicultural, multimedia Green Map project are unique! [bit.ly/4BsBlog](http://bit.ly/4BsBlog)

## Green Map Books that tell more stories!

More stories of Green Mapmaking are available for free!

Why does it matter?

What real change does community mapping lead to?

In central Japan, Green Map Aichi created an outstanding 40-city network, exhibitions and workshops for EXPO 2005. Responding to questions from the thousands of visitors, they realized that short stories written by Green Mapmakers themselves would be a good way to share the many disparate impacts. Partnering with the global office, stories were collected, translated and composed in the free book you can download at [GreenMap.org/impacts](http://GreenMap.org/impacts). The English edition was published in 2009, and later, stories featuring users of the Open Green Map platform were added.

Prior to producing Green Map Impacts, Green Map Japan and Green Map System co-produced the Green Map Atlas, also in both languages. Free as a PDF from [GreenAtlas.org](http://GreenAtlas.org), this multimedia anthology of ten “behind the map” stories became the prototype for the profiles of Mapmakers and their maps on [GreenMap.org](http://GreenMap.org). A limited edition print book and a CD-ROM (in English and Japanese) were produced in 2004, followed by an exhibition and discussion series.

This collaboratively produced book, *Mapping Our Common Ground*, that you are now reading, came next. Published first in 2006, it was translated into Spanish in 2007 and reprinted in English. The book, was dated in 2016-17, with links to websites, videos, blogs, maps, etc.

While these books inspire as they share the ups and downs of community mapping, Green Map System also provides ‘nuts and bolts’ for making different types of Green Maps. For example, in 2007, the organization assessed the design and effectiveness of various print editions that had been contributed to the Green Map Archive. This review led to the creation of a Style Guide that helps mapmakers determine everything from choosing colours to how to fold their map. Available in the online Tool Centre to logged in Mapmakers (or by request), it has been downloaded more than 4,000 times! [GreenMap.org/resources](http://GreenMap.org/resources)



# Child and Youth Mapping

*Community and Green mapping are powerful tools for working with and involving children of all ages in the design and planning of their community and world.*

## Children of all ages love to make maps!

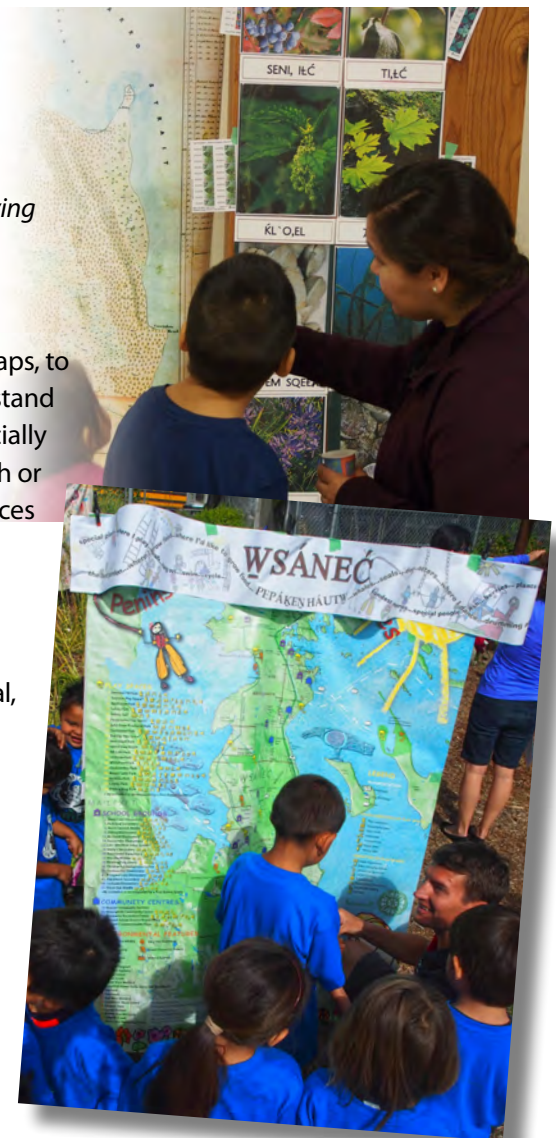
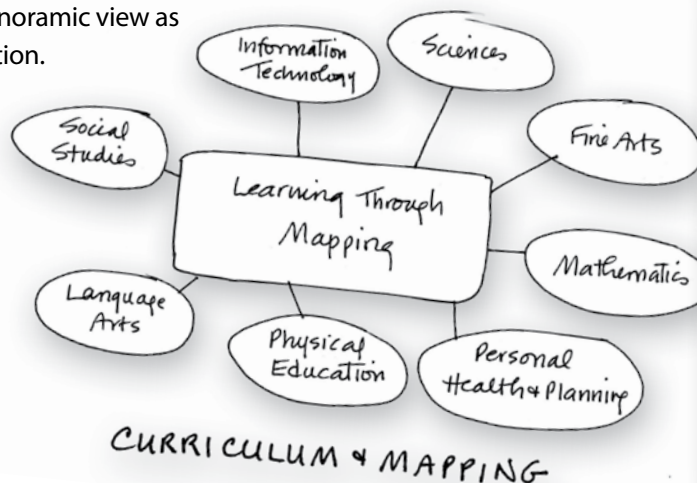
From clay-scale models of classroom furniture, to backyard treasure hunt maps, to schoolyard and school community biodiversity maps, children easily understand the connection between the map and the territory. This connection is especially motivating for young learners when the territory is one they are familiar with or attached to. School yards and school communities are excellent starting places for teaching with and about community mapping.

## Connecting Schools to Community

Community mapping engages students in a process that values social, cultural, and ecological aspects of the community. Opportunities for investigation go beyond the boundaries of the school property. The presentation, sharing, or publishing of maps is also part of this process of engagement. When children know that their map work will be seen or used by others in the community, they put greater value on the process and the outcome.

## Integrating Learning and Curriculum

Community mapping is ready-made for an integration of the sciences, social studies, language arts, fine arts, civics, mathematics, and information technology. Mapmaking can accommodate a wide range of learning styles and developmental stages as children investigate and represent their home territory through a variety of media. Both the scope of the map (size of territory represented) and the method of representation (three-dimensional model, panoramic view, aerial view, contour map, etc.) can be tailored to children's conceptual and social development. For example, a younger child's "territory" will be smaller in scope - perhaps the house and street, with an easily understood panoramic view as the representation.



*Community mapping students and volunteers support the food education program **PEPÁKEN HÁUTW** at the **LÁU, WELNEW** Tribal School with language and mapping activities*

*"For me it is really important that learning not be always a study of what is out there, in other places, all the time. When my class were doing the geography of making their own maps, it was their geography, their place. Today I just came from my class and one of my kids said, "We are history." Mapping has been a wonderful way for them to develop that feeling of being a participant."*

*Susan Underwood  
Canadian Schoolteacher*





*Community-engaged, experiential, action-based learning. VicWest neighbourhood, Victoria, BC*

## Child and Youth Community Mapping

### Liberian Clay and Stick Maps

The Liberian Children and Youth Mapping Project 2005 was coordinated by Canadian student Michael Allaway. In Central Roysville, Bomi County, Liberia, Michael worked with teachers and a youth leadership group of 5, and 30 students ages 12-20. Over several months they created an environmental map of the school area using clay and sticks. Then they made detailed diagrams and sketches of local plants, including a rudimentary classification system: Medicine/Food/Decorative/Dangerous. They finished their project by documenting cultural stories of the area, using the map and 'family trees.'



*Liberian Children's map  
photo: Michael Allaway*

### SeaChange Marine Conservation Society

**SeaChange**, a BC, Canada-based NGO, partners with local **WSÁNEĆ** First Nations to engage school-aged children, youth, and adults in hands-on, action-based, cultural and environmental education programs, as well as land- and water-based restoration activities in **SNIDZEL** (Gowland Tod Inlet). An online participatory, interactive **Coastal Community GreenMap** was begun in 2009 where people could post cherished sites and stories (settler as well as First Nations) connected to the Saanich Peninsula and Inlet region. **WSÁNEĆ** First Nations history, traditional place names, language and cultural practices revitalization are central to their work. [seachangesociety.com](http://seachangesociety.com)





## PlaySpaces

The Peninsula Play Spaces map and process, Rediscovering Places to Play on the Saanich Peninsula (BC, Canada) led by the community-based network Peninsula Connections for Early Childhood, engaged hundreds of parents, elders, community leaders, and service agencies between 2005 and 2007 documenting existing and potential services and community/recreational spaces for young children and families.

For the first time, Indigenous WSÁNEĆ parents and elders' voices, place names and cultural knowledge about childrearing were blended into a broader intercultural

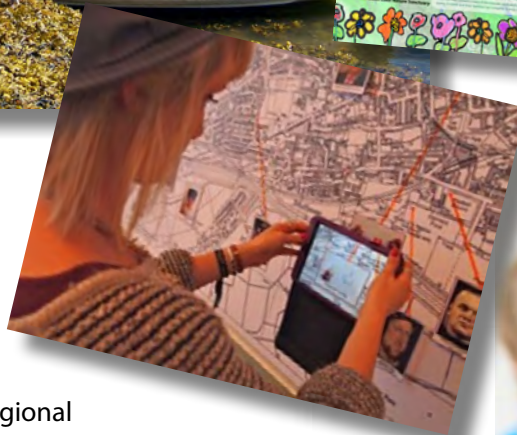
[bit.ly/playspaces](http://bit.ly/playspaces)



## Young Digital Citizens(hip)

Using accessible technologies such as iPads, phones, gaming (Minecraft) programs, and other creative methods, young people in the UK are engaging in neighbourhood and regional planning. Also called digital localism, local researchers and designers engage a wide range of young people in sharing their ideas, values, and inventories of local assets and compile them into interactive online mapping. Much of this work has been piloted in the Brighton, Sussex area, but has rapidly grown to include other schools and communities nation-wide.

[community21.org/toolbox](http://community21.org/toolbox)





## Child and Youth Green Mapmaking

Children and youth get involved in the Green Map movement through a class project, after school, or summer experience. Sometimes they create a neighbourhood version of a larger citywide map; other times, an important issue is the focus. Youth often choose to design their own local icons, and write narrative text, and add their own photos, drawings, and poems. They also produce all kinds of creative ways to present their Green Maps to their peers, policymakers, and the community at large.



### The Youth Green Mapmaking Resources

Mapping helps youth connect with their community at a deeper level. At [GreenMap.org/youth](http://GreenMap.org/youth), find examples, details and some free tools you can use right away. Or, register your project at [GreenMap.org/join](http://GreenMap.org/join) and download the Green Map Icons, activities, surveys, a sensory journal, and other resources adaptable for use by K-12 teachers and youth groups. Access the entire online toolkit, including graphics, a style guide, slideshows, or make an interactive Open Green Map. Links in the same section take you to university student research papers, syllabi, and thumbnails of youth-centric Green Maps, as well as videos from around the world.



### Republic of Korea

Not far from Seoul, a private-governmental cooperation organization, Gyeonggi 21, has promoted Green Mapmaking throughout the province with several groups, including students. One of special interest is the "Gogangdong Greenmap," which means, Drawn with Both Feet! Fieldwork led to the mapping of hiking trails, nature zones, and historic sites. The youth made their own silkscreen and printed base maps on handkerchiefs, then stamped on the paths and sites. This project won an Excellence Award! [greenmap.kr](http://greenmap.kr)



## Youth-engaged Summer Projects in New York City

A leading example that still inspires youth today are the frank and fearless maps made by the nonprofit **Recycle-A-Bicycle**. Created from 1999-2005, these middle school age youth learned how to ride in urban traffic and to restore trashed bikes alongside the mapping work. R-A-B utilized Green Mapmaking to introduce environmental justice issues and build capacity to respond with effective communications resources. Learning from experts, drawing and writing, and presenting to local officials, the youth not only determined map themes, they also had fun getting involved in making the community a better place.



- **Red Hook** (Past Present Future Planning, Brooklyn), 2005
- **Sprout to Action** (local food, upper Manhattan), 2004
- **Space to Breathe** (on air pollution and asthma, upper Manhattan), 2003
- **Go Green NYC** (car-free mobility options, Brooklyn), 2002
- **Stop Fronting** (public access to the East River waterfront, Brooklyn), 2001
- **Are We Trashing the Apple?** (charting poorly planned transfer stations, Brooklyn), 2000
- **Pedaling Brooklyn's Gardens** (saving community gardens in Williamsburg), 1999

### Skill-building and Leadership through Green Mapmaking:

- Technology and Communications for Sustainability
- Promotion for the Social, Green & Low-Carbon Economy
- Cross-culture Collaboration & Exchange
- Create a Lasting Record of Change
- Experiential & Service Learning
- Ecological Literacy, Place-based Planning & Visioning
- Voice Assessment of Current Issues & Innovations
- Orientation to Community Assets & Challenges

## For Youth: NatureSchools are on the Map!

Two cities in the Oresund Region – Copenhagen, Denmark and Malmo, Sweden – have a long-term Education for Sustainable Development partnership. A unique aspect is the NatureSchool program; children who choose this option have all classes outdoors! The Green Map shares the locations of all the places in and around both cities that welcome the NatureSchool children, including farms, community gardens, waterfront, forests, and other natural areas. The cross-bridge collaboration is effective 'whole-child' learning – the NatureSchool students are healthier and score higher on tests! With social inclusion and knowledge sharing in mind, the program has even produced an English version Green Map.

[oresundsklassrummet.eu](http://oresundsklassrummet.eu)  
[bit.ly/OresundsMap](http://bit.ly/OresundsMap)





## Future Visions Maps

In many parts of the world, youth have taken part in planning the future of their communities. In Campinas, Brazil, the Real City and the Dream City 3D model mapping project fulfilled objectives including raising sensitivity, developing critical awareness, self-esteem, and a conscience about the responsibilities students have as citizens of the world. In Staten Island, New York, mapping was the starting point of a creative 3-year planning process in a Spanish-speaking neighbourhood around a city park where major capital investment had taken local residents by surprise.

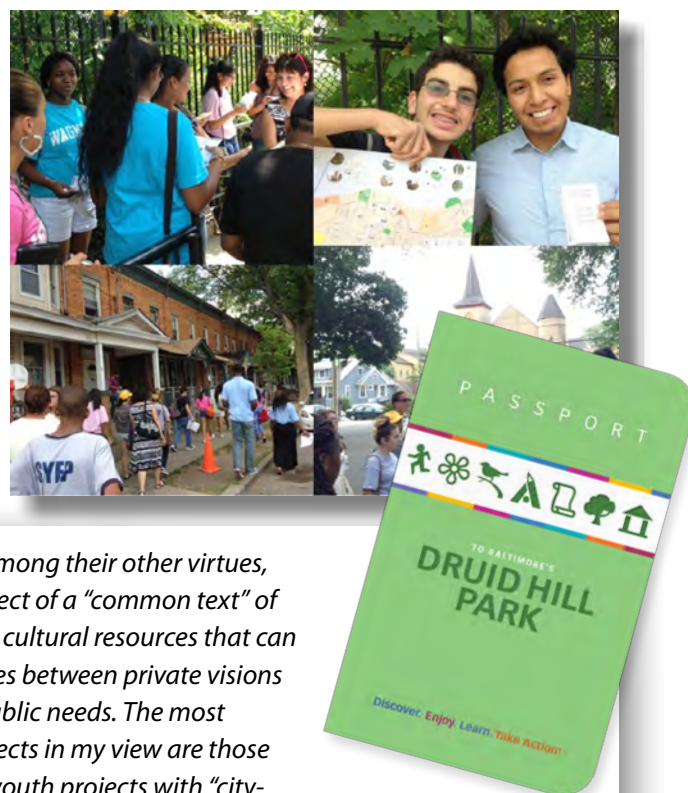
[bit.ly/PRsimap](http://bit.ly/PRsimap)

## STEM in Baltimore

Baltimore Green Map has applied urban planning techniques to its mapping work with fifth grade students, with the goal of enhancing learning in science, technology, engineering, and math. Moreover, Janet Felsten is extending STEM to STEAM by bringing in an arts orientation. This program has partnered with a parks organization to create a successful Kickstarter campaign that resulted in a Druid Hill Park Passport that makes a remarkable city park a much richer experience for all ages. The program works with universities as well as younger students, all to meet their mission. "Discover. Enjoy. Learn. Take action." [baltogreenmap.org](http://baltogreenmap.org)

*Green Maps, among their other virtues, offer the prospect of a "common text" of ecological and cultural resources that can provide linkages between private visions and chronic public needs. The most successful projects in my view are those that combine youth projects with "city-wide" projects. Working alongside adults helps students develop skills related to investigation, design, written and oral communication, agriculture, stream and park restoration, and more. Kids need skills, and adults need to communicate their respect for youth initiatives without holding youth responsible for ecological problems which we adults have made ourselves.*

*Dr. Robert Zuber, Green Map Education Director*



## Kanagawa, Japan

Japan has a rapidly aging population. Today, there is great interest in introducing the new generation to traditional production techniques, so these practices – which are often more sustainable and satisfying than modern means – won't be lost. Azuba University students mapped a 'satoyama' traditional village in Aone. Their experience includes planting rice in a way seldom seen today. The plant is completely immersed in water, and according to Professor Murayama. "Doing so creates an ecosystem in the paddy field where endangered species such as the Japanese diving beetle (gengorou) and tadpoles of the brown frog (akagaeru) can thrive." Photos of the students planting are included on the printed map. [bit.ly/GMAZJPm](http://bit.ly/GMAZJPm)



## Calgary Children's Green Map Converting Military Base to Parks!

The very first youth-made Green Map was made with Child Friendly Calgary when the Building Blocks' Neighborhood Green Map was completed during the summer of 1998. This project gave kids a chance to voice their opinion about what they value at the C.F.B. West military base, which is now converted into a public park in the heart of the city. Even though they created just one large-scale copy, its depth impressed older community members and enabled the young people to have a say in designing the new park. They created several new icons, including one for youth-friendly eco-spot. It became part of the global lexicon and has appeared on Green Maps around the world.



### Ideas!

Create an exhibit for the school that connects your local mapping project to the worldwide movement - download pages from [GreenMap.org](http://GreenMap.org) and [GreenAtlas.org](http://GreenAtlas.org), include existing maps of your community, and sketch maps and pictures created by the students.

## Cuba Teachers, Youth, and Elders Maps

Two school teachers and ten students are Green Mapping the rural area of Bungo La Venta, in the municipality of Contramaestre, in the province of Santiago de Cuba. This is a small community of 74 square kilometres. The Nature icons reflect the biodiversity of this place. You can find the following icons: Insect Watching, Bird and Wildlife Watching Site, Wetlands and many more.

Some problems highlighted by the Mapmakers:

- Water pollution source - it was cleaned up by the community, and replaced by a garden.
- Use of slingshots, especially by youth - now they are protecting the birds' nests.

One of the future objectives is to build a park for kids, create a place to sell farm products and organize reforestation projects to conserve some native species.

In Holguin, Dr. Rafael Torres Carlos Manuel de Céspedes and Roberto Rodriguez led one of the first Green Map projects in Cuba. The focus was on health-related issues, and the map was created with the help of students in 1999. Now they are working in different areas. They improved the Reparto Lenin Park in coordination with Poder Popular and communal services. The school functions like an environmental reference centre and is home of Holguin's Green Map.

In Consejo Popular Príncipe, in the municipality of Plaza, Havana, an intergenerational group of youth and senior citizens developed creative initiatives to recover green spaces and created pocket maps for the elderly. They have used these small Green Maps for city sanitation and social projects. They have some thematic maps about cultural personalities, too.

In San Miguel del Padrón, Havana, youth from Antonio Perez School, with the leaders Katia Portal and Mercedes Vega, made an biodiversity inventory/list Green Map. With it, they identified some native animals/plants and traditional medicine sources.



*Former derelict site restored,  
Mapa Verde, Cuba*

Working with youth in the schools on Mapa Verde projects helps young people see their work become a transforming movement in their communities. The experience helps reinforce community and environmental values, develop skills, and create a sense of ownership – these are positive actions for sustainable development.

*Mapa Verde Cuba*



## Green Map System Icons

The Green Map® Icons are the heart of Green Map's global program. This collaboratively designed visual language identifies, promotes, and links ecological and cultural resources on every Green Map. In 2016, the Icons are 'going open'!

Icons make the Green Maps easy to explore, regardless of the language and cultural orientation. There is general agreement on each Icon's meaning, but the local Mapmakers determine precise definitions for the Icons they use. Mapmakers are also continually inventing new local icons, many of which get "adopted" into the globally shared set – young people especially enjoy creating new place-based symbols!

Green Map's Icon Poster can be downloaded in Arabic, Chinese, English, French, German, Hebrew, Indonesian, Japanese, Polish, Portuguese, Russian, Spanish, and Swedish. There are Icon 'flashcards,' too!

The 170 Green Map Icons have been digitized into a font, so they can be typed in from any keyboard. They are also provided in PDF, JPG, SVG, and other image formats. And they are built right into the Open Green Map and the mobile Site Collector, too. Check online for updates on how Green Map Icons can be used for your own local projects.

[GreenMap.org/icons](http://GreenMap.org/icons)



# Green Map® Icons Version 3



24

GreenMap.org

## Think Global, Map Local!

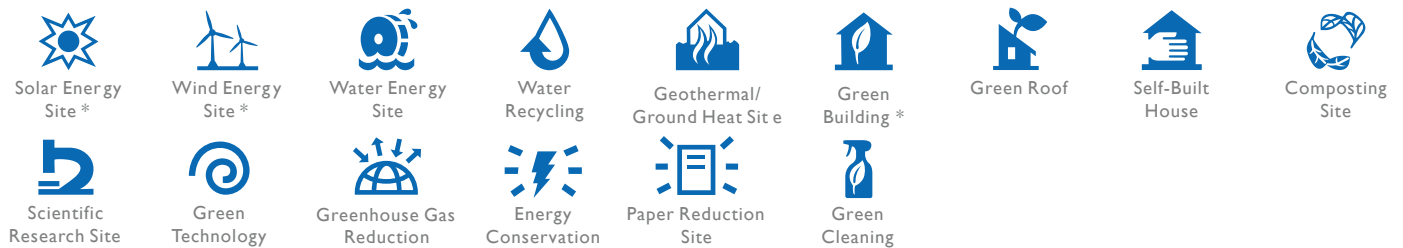
Green Map® System promotes inclusive participation in sustainable community development worldwide, using mapmaking as our medium. This globally recognized iconography connects communities to diverse local sites, routes, and resources. More at [GreenMap.org/icons](http://GreenMap.org/icons)

## Sustainable Living

### Green Economy



### Technology & Design



### Mobility

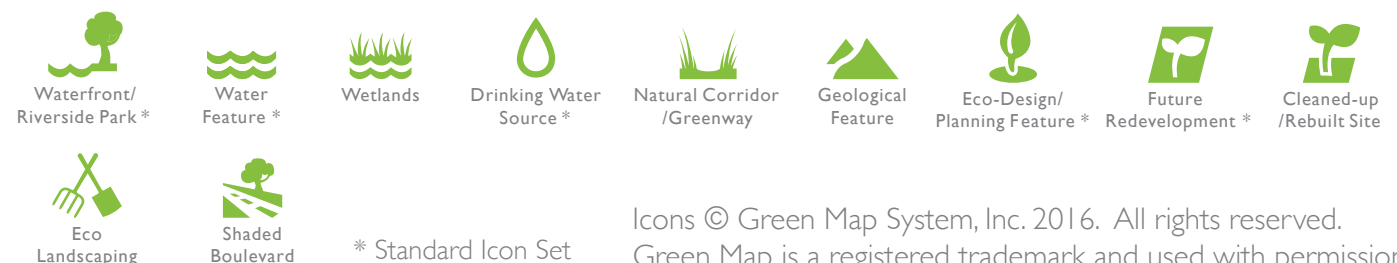


### Hazards & Challenges



## Nature

### Land & Water



\* Standard Icon Set

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Green Map is a registered trademark and used with permission.



## Flora

25



## Fauna



## Outdoor Activities



## Culture & Society

### Cultural Character



### Eco - Information



### Justice & Activism



### Public Works & Landmarks



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and used with permission.

**Sustainable Living**

**Green Economy**  
**Technology & Design**  
**Mobility**  
**Hazards & Challenges**



Carpinteria  
Cuba



Flea Market  
Aichi, JP



(Used) Books  
Jakarta, Indonesia



Handicrafts  
Pune, India



Scenic Road  
Oak Bay, BC, CA



Bike Repair Shop  
Jakarta, Indonesia

**Local Icons**

*Some of the many local icons being made all over the world!*

*"New place-based icons are being designed by mapmakers, in addition to the globally shared set of 125 symbols. It is exciting to try to convey a complexity with a single symbol - almost like a logo, it needs to be distinctive looking and easy to recognize. Can you make an icon for a special site? Green Map System collects these for the website, so be sure to send it in!"*

Green Map System



Renovated Bldg.  
Hakodate, JP



Historic Feature  
Aichi, JP



Windmill  
Gouda, Holland



Foot Bridge  
Guelph, Can



Traffic Hazard  
Aichi, JP



Railway  
Pune, India



Road Heating  
Tokyo, JP



Shrine  
Kyoto, JP



Transport  
London, UK



Mass Transpo.  
Cuba



Comm. Farm  
Tokyo, JP



Berry Gathering  
Victoria, BC, CA



Food  
London, UK



Garden  
London, UK



Accommodations  
Toronto, CAN



comm. health-care  
Jakarta, Indonesia



Family Doctor  
Cuba



Hotel (Budget)  
Jakarta, Indonesia



Recycled / Upcycled  
Clothing  
Victoria, BC, CA



Hotel/hostel  
Copenhagen, DK

**Nature**

**Land & Water**

**Fauna**

**Flora**

**Outdoor Activities**



Hills  
Hakodate, JP



Beaten Track  
(trillos) Cuba



Camas Meadow  
Victoria, BC, CA



Mixed Forest  
Aichi, JP



Whale Witnessing  
Victoria, BC, CA



Scented Tree  
Tokyo, JP



Native Trees  
Adelaide, Aus



Intertidal Zone  
Victoria, BC, CA



Sled  
Yellowknife, CAN



Golf  
Victoria, BC, CA



Boulv. Garden  
Guelph, Can



Ecosystem  
Cuba



Banana Plantation  
Jakarta, Indonesia



Hang Gliding  
Rio de Janeiro, BR



Deforestation  
Vict Falls, Africa



Garry Oak(s)  
Victoria, BC, CA



Edible Plants  
Tokyo, JP



Snow Boarding  
Yellowknife, CAN



Sea Flora  
Victoria, BC, CA



Relaxing Spot  
Tokyo, JP



Winter Sports2  
Yellowknife, CAN



Comm. Garden  
Cuba



Salmon Spawning  
Victoria, BC, CA



Kite Flying  
Victoria, BC, CA



Tide Pools  
Victoria, BC, CA



Osprey Nest  
Victoria, BC, CA



Beach Games  
Rio de Janeiro, BR




## Culture & Society

Cultural Character  
Eco-Information  
Justice & Activism  
Public Works &  
Landmarks

	Green School Cuba		Recycling Spot France		Ethnic/Trad. Culinary Jakarta, Indonesia		Info. Centre Cuba		Hospitality Aichi, JP		Lighthouse Victoria, BC, CA
	Mystery Site Victoria, BC, CA		People Friendly Aichi, JP		Newcomers Support Service CRD, BC, CA		Aboriginal Feat. Adelaide, Aus		Maori Cultural Site Hamilton, NZ		Colleges Pune, India
	Theater Pune, India		Mapmaker Aichi, JP		Heritage Rural Lan. Aichi, JP		Public Wharf Victoria, BC, CA		Environ. School Hamilton, NZ		Heritage Road Highlands District, BC, CA
	Local Music Cafe Victoria, BC, CA		Culturally Modified Tree Victoria, BC, CA		Cedar Harvesting Victoria, BC, CA		Emergency Transport Haida Gwaii, BC, CA		Newcomers Language Support CRD, BC, CA		Monument Cuba
	Murals Cuba										

## Green Map Icon Pattern Code

	Garden		Enterprise		View		Fair		Eco		Building		Global
	Trees		Café		Energy		Caution		Growing		Store		Community
	Wildlife		Tourism		Solar		Negative		Indigenous / Local		House		Person to Person
	Water		Bicycle		Drinking Water		Danger		Organization / Club		Lock		People
	Food		Media		Alight		Waste		Eco Certification		Positive		Official

## These Patterns are combined in our global icon set



## Green Map Icons and the United Nations Sustainable Development Goals

The United Nations' work on sustainable development has been an inspiration to Green Map System since the nonprofit began. Now, the UN has a new way of clearly setting out goals, with 17 Sustainable Development Goals. We've matched them to our award-winning icons, as seen at [UN 2030 SDG Goals & Our Icons](#). Use them together, creatively, for the betterment of your own community and the beautiful world we share.







**End hunger, achieve food security and improved nutrition and promote sustainable agriculture**



Eco-Agriculture / Permaculture



Farm Animals



Farmers / Local Market



Fair Trade



Food Bank



Organic / Local Food



Composting Site



Healthy Dining



Local Business



Garden



Food Gathering Site



**Ensure healthy lives and promote well-being for all at all ages**



Alternative Health Resource



Social Service



Hospital



Child Friendly Site



Senior Friendly Site



Unhealthy Spot



Blight Site



Air Pollution



Disaster Area



Greenhouse Gas Reduction



Healthy Dining



Noise Pollution



Traffic Hazard



Contaminated Site



Deforestation



Organic / Local Food



Public Forest / Natural Area



Park / Recreation Area



**Ensure inclusive and quality education for all and promote lifelong learning**



School



Public Library



Independent / Eco-Media



Green School



Historical Feature



Environmental Education



Significant Organization / Agency



Community Garden



Scientific Research Site



Museum



Online Resource



**Achieve gender equality and empower all women and girls**



Social Enterprise



Responsible Company



Local Business



Farmers / Local Market



Fair Trade



Child Friendly Site



Community Centre



Volunteer Site



Senior Friendly Site



Governmental Office



WC / Public Restroom



**Ensure access to water and sanitation for all**



**Ensure access to affordable, reliable, sustainable and modern energy for all**



Incinerator



Online Resource



Pollution Monitor



Unsustainable Land Use



Alternative Fuel / Vehicles



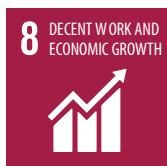
Water Energy Site



Vulnerable Site



Scientific Research Site



**Promote inclusive and sustainable economic growth, employment and decent work for all**



Responsible Company



Fair Trade



Farmers / Local Market



Green Enterprise



Eco-Agriculture / Permaculture



Repair Shop



Organic / Local Food



Reuse Shop / Market



Social Enterprise



Information Kiosk



Public Library



School



Wifi Spot





**Build resilient infrastructure,  
promote sustainable  
industrialization and foster  
innovation**



Waste Water  
Treatment Plant



Solid Waste Transfer  
Station



Public Library



Energy Infrastructure



Eco Certification



Eco Expert



Social Service



Poor Labour Practice



Hospital



Eco-Design /  
Planning Feature



Cleaned Up /  
Rebuilt Site



Airport



Bicycle Parking



Bicycle Path



Brownfield



Site  
Water Energy Site



Composting Site



Ecotourism Resource



Noise Pollution



Oil / Gas Facility



Pedestrian Friendly



**Reduce inequality within and  
among countries**



Social Enterprise



Responsible  
Company



Fair Trade



Community Garden



Climate Changed  
Area



Significant  
Organization /  
Agency



Poor Labour  
Practice



Independent / Eco-  
Media



Free Speech Zone



**Make cities inclusive, safe,  
resilient and sustainable**



Community Centre



Governmental  
Office



Diverse  
Neighbourhood



Museum



Public Library



Significant  
Organization /  
Agency



Vote Here



Waste Water  
Treatment Plant



Community Garden



Park / Recreation  
Area



Public Space /  
Square



Public / Mass  
Transportation



Recycling



Energy Infrastructure



Green Maps  
Available



Independent / Eco-  
Media



Online Resource



Social Service



Wifi Spot



Drinking Water  
Source



Cultural Site



Art Spot



Lively Spot



Bus / Rapid Transit /  
Light Rail



### Ensure sustainable consumption and production patterns



Recycling



Repair Shop



Reuse Shop / Market



Rental / Share



Local Business



Public / Mass Transportation



Social Enterprise



Greenhouse Gas Reduction



Green Technology



Green Store



Green Enterprise



Farmers / Local Market



Eco-Products



Waste Dump



Mining Site



Bicycle Site



Organic / Local Food



Bird &amp; Wildlife Watching



Alternative Health Resource



Cultural Site



### Take urgent action to combat climate change and its impacts



Greenhouse Gas Reduction



Energy Conservation



Solar Energy Site



Bicycle Site



Green Technology



Green Roof



Green Store



Eco-Products



Climate Changed Area



Ecotourism Resource



Green Technology



Eco Club / Organization



Eco Certification



Eco Expert



Eco Information



Eco-Justice Organization



Green School



Pollution Monitor



### Conserve and sustainably use the oceans, seas and marine resources



Aquatic Habitat



Coastal Habitat



Amphibian Habitat



Water Feature



Wetland



Wildlife Centre / Zoo



Water Pollution Source



Unsustainable Land Use



Climate Changed Area



Oil / Gas Facility



Vulnerable Site



Water Transport



Eco Information



Pollution Monitor





**Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss**



**Promote just, peaceful and inclusive societies**



**Revitalize the global partnership for sustainable development**



# Community and Green Mapping Activities

Community mapping and Green Mapping are creative learning processes. The following Mapping Tools section (pp. 28 - 34) offers workshop and design examples and outlines for you to use or adapt.

## The Learning Space and Process

### Ingredients for community mapping workshops

Community mapping projects often begin with or include a classroom-style workshop. This does not exclude community research, walkabouts, interviews, data collection, and other activities. However, building the group or the “team” is central for most community mapping projects. Here are a few guidelines for creating a positive learning environment for sharing, dialogue, and community action.

### Classroom Style Workshop

#### Provide a comfortable space

Ensure you have a bright room or space to work in. A set-up where you provide groupings of tables, each with five or six chairs is ideal. If you are outside, use what you can!

#### Provide a welcoming atmosphere

Participants need to be welcomed by the facilitators and hosts and have informal time to meet one another through friendly introductions, warm-up activities and refreshment breaks.

#### Ensure the process is guided by skilled facilitators

The main facilitator(s) need to feel comfortable both speaking to a large group and guiding the small group (3-6 people) mapping process. Designate small group leaders to facilitate group listening and/or to record what is said.

#### Focus on participation, fun, and inclusion

Everyone’s views matter and the more diversity in the group, the better. Mapping allows different forms of expression and dialogue. It literally creates space for diverse views to be expressed and for less verbal people to be included.

#### Forget about technical accuracy

Community mapmaking is about story telling and creating a sense of home place, and does not require skilled artists or technicians. Narrative and specific information about a place can be gathered through the process by a group recorder or by further investigative data collection. (i.e., Thematic Speakers, Field Trips, Community Walkabouts, and Inventory Collection).

### Keep it Simple! Basic Materials for Mapping

Find something to draw with and on. A basic community mapping workshop uses large pieces of newsprint paper (i.e. 3’ x 2’) and markers or crayons. Magazine clippings, diverse art supplies, and ingredients from nature representing your local bioregion all work.

Communities worldwide have created chalk maps, clay maps, tapestry maps, wood maps, and maps with photos, poems, and songs. Unleash your creativity!

*SLOW DOWN. Wisdom comes through walking, talking and listening.*

*Common Ground UK*





# Workshop Examples

## Personal Journey Mapping

*Group size: 1-10*

*Time: 1.5 hours*

*Objective: to connect people to place, to build group trust, to share worldviews and stories*

*Materials: large sheets of paper, colored pencils, crayons, or markers*

*Notes: This exercise takes time, so allow yourself flexibility. Taking a stretch/refreshment break before and/or mid-way through the presentations helps to keep energy up if the time goes beyond 2 hours. Information shared by people can often be very personal and sensitive. The facilitator can encourage the group to listen (with their ears, eyes, and heart) and to hold in confidence information shared.*

### Introduction – 15 minutes

This exercise requires a careful introduction and is best done with a group that will be working together for some time. Arrange seating in a semi-circle. Participants can introduce themselves, sharing something that is unique about them – for example, where their name came from, favourite colour, or favourite food. The facilitator describes a personal journey map, noting that each person's map is full of rich stories, with significant turning points, joys and sadness, and particular places and people that have affected them (facilitators can give examples from their own lives).

*Guiding questions are:*

What are the significant events, people, and places in your life?

What are the major turning points? What have been the key insights or learnings?

The facilitator encourages participants to draw or map their journeys in any way they wish, to take time to think deeply about their lives, and to work in silence. Using the physical landscape (i.e. mountains, valleys, rivers, deserts, cold and warm places, and darkness and light) is one way to describe a journey. Tell the group that they will be asked to share their maps, in as much detail as they wish, once they return.

### Individual Mapping – 30-45 minutes

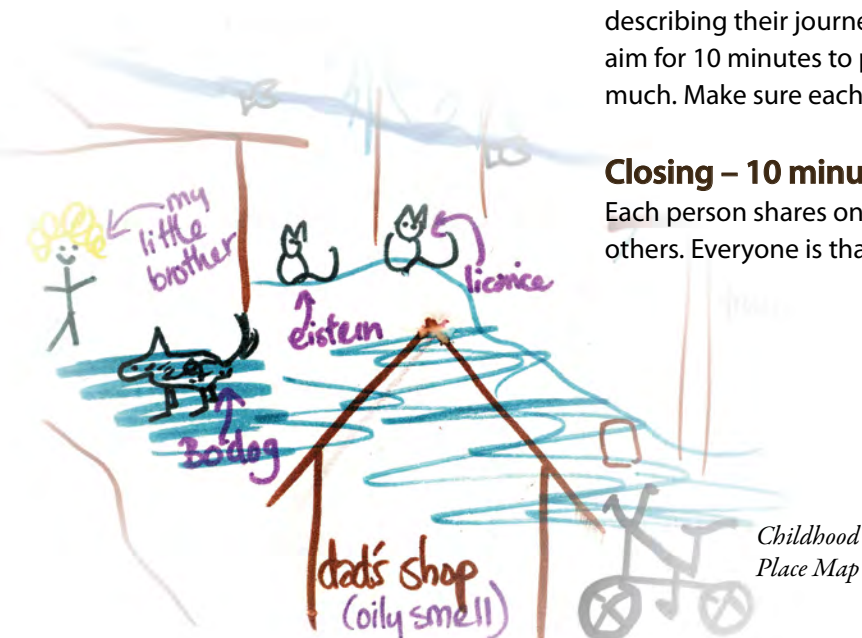
People take their mapping materials to a quiet place to make their map. Once they are finished their map they return to the group.

### Group Presentations – 10-20 minutes per person

The entire group is called back together to present the personal maps. This is on a voluntary basis. People hold up their map or put it on the wall while describing their journey, the key events, and insights. Encourage them to aim for 10 minutes to present their map, but do not rush anyone along too much. Make sure each group has time to present.

### Closing – 10 minutes

Each person shares one thing they have learned about themselves and others. Everyone is thanked.



*Childhood  
Place Map*

## Variations on Personal Journey Mapping

### Personal Assets Map

What makes you unique? What is your special gift to the world? Assets are defined in this exercise as personal idiosyncrasies, gifts, and capacities. Each person is asked to draw themselves and either draw in or list five (or more) assets that they have. These can be drawn onto a piece of paper as a face or abstract drawing, or put up on the wall and grouped under different categories to create a collective inventory. Others in the group can add assets that they see in each other. (See McKnight, *Building Communities from the Inside Out* or *Youth Asset Mapping Manual* for more ideas.)

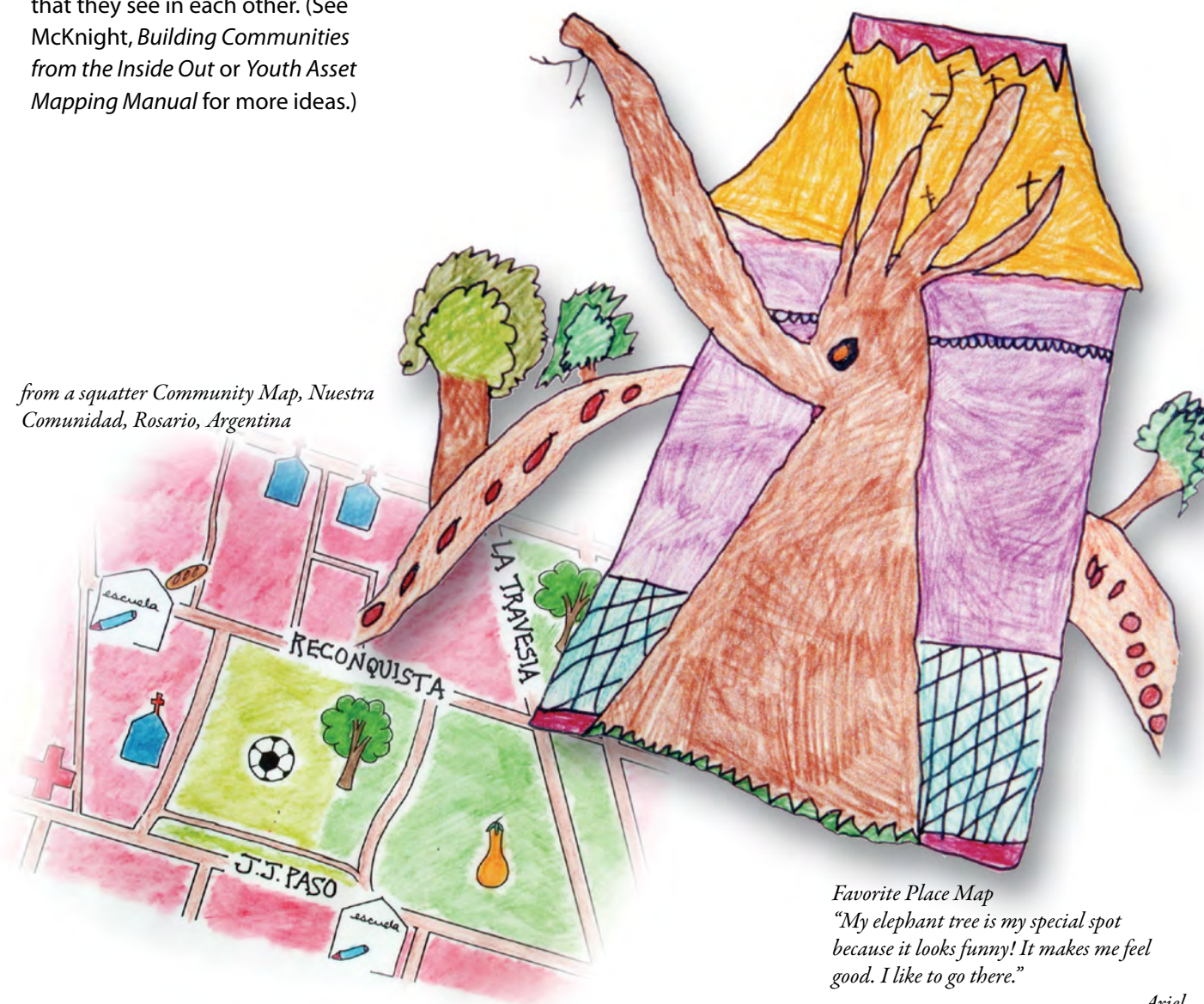
### Childhood Place Map

Think of a special place from your past or childhood. Take time to remember the details of the place and to draw it (15-20 minutes). Share this with the larger group. This can also be shared simply as a story. Sometimes people are encouraged beforehand to bring in a photo or to prepare a presentation about the place. The group reflection or debriefing centres on what makes places special to us.

### Favorite Place Maps

Think about a favourite place in your life. Map where it is. Photograph it and write a brief story, poem, or song about it and about why it is so special to you. Share this with the group. This can also be developed over several weeks as a celebration of community and sense of place project. It could be exhibited at a school, community centre, or art gallery.

*from a squatter Community Map, Nuestra Comunidad, Rosario, Argentina*



#### *Favorite Place Map*

*"My elephant tree is my special spot because it looks funny! It makes me feel good. I like to go there."*

*Ariel*



## The Planning Game

**Group Size:** 5-30  
(very flexible)

**Time:** 1 hour (with discussions and variations 2 hrs)

**Materials:** coloured markers, coloured strips of paper 1 x 2" (five per person), a planning diagram

A planning diagram is a large 3' x 5' piece of paper labeled: "Essential Features of a Healthy Community" with three intersecting circles labelled: "Environment (Natural and Built)," "Economic," and "Social-Cultural," with the central intersecting circle labelled "Health". You will put this up on the wall.

**Notes:** This exercise can be adapted to many groups and settings and can be followed by in-depth discussions of balancing values and priorities. For example, once all the features are placed on the planning matrix, the group can decide which are the most important and why.

### Objective

This activity explores the values that influence personal and community decision making. It can be used with all ages and provides an excellent basis for group building and for re-presenting the individual and common values behind a community mapping and planning process. It also complements "quality of life" and "sustainability indicators" planning exercises.

### What is a Healthy, Livable Community to Me? to Others?

Begin by introducing yourself and have the group members introduce themselves and the places they call home. As an option people can also share an adjective that describes what a healthy community should look or feel like (e.g., "Hi, my name is Sarah, I live in Sunshine neighbourhood and I think a healthy community should be..."). Have a recorder write down the names and the adjectives as they speak, for all to see. Then hand out five pieces of coloured paper strips or post-it-notes and a marker to each person. Ask people to visualize a healthy community, a healthy place. Get participants to briefly share their ideas with the person next to them.

Ask participants to think of themselves as community planners or designers and to write on each piece of paper one essential feature of a healthy community. Allow them 5-10 minutes – they can do this alone, but can also work or discuss with others. While they are doing this, put up your planning diagram.

Briefly explain the various components of the matrix and get people to tape up their five features. If your schedule permits, this is best done one at a time with each person explaining his or her features and why they chose them.

If you wish, you can now lead into a discussion on planning priorities and dilemmas, or work directly into a mapping exercise of a particular place and theme.



## Local Place Map

Group Size: 5-25

Time: 30 minutes – 1 hour

Materials: large sheets of paper and coloured pencils, crayons, or markers

Photocopies of Green Map icons (optional)

Notes: People often need some concrete suggestions and encouragement to get started, but once they begin, it will be hard to get them to stop!

### Create the Maps – 20 minutes

Decide on what you consider to be your local region and draw a rough outline of it. It can be your block, your neighbourhood, the whole city, or a watershed etc.

Mark your favourite places— walks, important centres, leisure spots, etc. Be as concrete or as abstract as you wish. Do not worry about scale or accuracy. Make your own icons (e.g., favourite places, green spaces, and opportunity sites) or use those from the Green Map System.

Mark your least favourite places, those you consider uninviting, dangerous, etc.

Mark opportunity sites or places you would like to see change.

### Discussion – 15 minutes

What do you consider local? Why did you exclude other areas?

Do you remember a time when the map of your region would have been very different?

What did you leave off your map?

Why did you use certain symbols on your map?



### Variation – Bioregional Map

- Spend a few minutes selecting the place you would like to map. It should be a small area that you know fairly well, like your home, workplace, or a favourite park or beach.
- Draw outlines of your space. It does not have to be defined by streets. It could be bordered by bodies of water, a property boundary, a hill, trees, or another building.
- Mark an "X" to show where you are.
- Draw the nearest body of water if there is one. This could be a creek, ditch, pond, river, lake, or ocean.
- Are there any animals (birds, mice, cats, spiders, snakes...) living there?
- Draw or make symbols of the plants and trees in and around your space.
- Are there any outstanding features that make your place unique?
- With symbols or words, show your favourite and least favourite spots.
- With words, symbols, or images describe what certain places on your map mean to you.





## Global Mental Map

*Group Size: 5 - 25*

*Time: 45 minutes*

*Materials: large sheets of paper, and coloured pencils, crayons, or markers*

*Notes: Be sure there are no globes or global maps in the room. Be aware that people will have different values and observations and different understandings of various continents and countries. All are valid! The variation makes for a rich and interesting map.*

*Global mapping with children often results in wonderfully creative abstract views of the world in the shape of animals or symbols like hearts or flowers.*

### Create the Maps – 30 minutes

Draw the world as you know it in your head – as you see and experience it. You may include continents, oceans, major rivers and lakes, the poles, etc. Do not use any reference material when drawing your map; draw only what you can on your own.

On the map, draw symbols showing what meanings certain regions or specific places have for you.

### Discussion – 15 minutes

How do you see your world?

What continent or country is at the centre of your map?

What does this tell you about your perspective on other regions?

Which areas were you unsure about? Why?

Show your map to someone else (or another group). Have them interpret what your map might say about your perspective on the world.

### Extensions

Indigenous and colonial maps are excellent discussion tools for an exploration of worldview and knowledge.

Putting a globe or a world map upside down and asking if it is accurate is another great way to discuss the significance of who makes the map (i.e., northerners made the world map, so the north is on top).



## Community Asset and Vision Mapping

This is a generic workshop format used for local or neighborhood mapping events for 5-30 people. It may take 2 hours: one hour for groups of 4-6 people to answer the questions and another hour for presentation and discussion.

**Materials:** large table-size planning map, color dots to place on sites, post-it notes for site descriptions, paper to draw out your favorite places, coloured markers, eager neighbours

### Community Mapping Introduction

Why Community Mapping?

Give a simple overview of community mapping focusing on the connections between Assets, Values and Visions.

#### Goals of Exercise:

- have fun and be creative
- meet your neighbours and remember their names
- identify community assets and opportunity sites
- vision together and discuss the “what if?” possibilities

#### Rules:

- Listen as much as you talk!

#### Map Each Site

- Every dot is numbered and the site information to match it – put on each post-it notet – MUST have the corresponding number on it too!
- Identify each site with a coloured dot
- Write the same number on a post-it note
- Describe the site on the post-it note

#### Group Exercise

A) Mapping Ourselves: Who are We and What Do We Love Best about our Community?

- About You! – Introduce yourself to the group and mark with a dot where you live and with a post-it note your name (and address/email, if you like)
- Your Favourite Place - Locate and describe a favourite place to one another or take a bigger piece of paper and draw your favourite place and put that along the sides of the map.

B) Mapping our Common Treasures: What and Where are Our Community Treasures?

- Locate the Assets (using the dots and post-it notes) Blue and Green Assets (Sites, Routes, and Spaces)
- Arts and Culture Assets, Social Assets (and services), Commercial, Economic Development Assets

C) Mapping Our Visions – from Assets to Opportunities - What and Where are Our Visions for Change? How Can We Improve Our Community?

- Identify opportunity sites from the above categories and describe them on the green post-it notes. (This could be a future development idea, a vacant lot, a service that does not exist and should, a clean-up area, a health clinic, a wharf, a community garden, a bakery, a new greenway or bike path, a swimming pool...!)



*Visions for change:  
"For all the poor people [to] have food and a house and warm things to wear!"*

*Jenna, age 10, grade 5*



# Green Mapmaking Process

Here are the basics and a chart for creating a Green Map.

## 1. Getting Started

Choose an area to explore. Study an existing map showing landmarks, including streets, parks and gardens. Discuss your target audience (neighbours, tourists, students and schools) and goals for your Green Map project. Will you print and distribute copies, or create poster Green Maps for display on a wall?

## 2. Choosing the Icons

Review the Icon sheet – what themes will you highlight? Will you focus on positive sites or include “blight” sites, such as contaminated sites? Start by mapping familiar cultural and historic places, and add recycling and reuse sites, gardens, wildlife habitats, healthy mobility and green businesses. Then keep going!

## 3. Investigating and Recording Green Sites in Your Neighbourhood

Work in small teams while you are in the field, using notebooks or index cards to record the name, category, and location of each green site. Take notes and photos of special features, or make sketches. Gather information from local residents, shopkeepers, librarians, etc. about important ecological and cultural sites in your area. Media reports, events and meetings can help you discover more greening initiatives in your community.

## 4. About Toxic Hot Spots

Your Green Map can bring public attention to challenging issues. Most communities contain some threats to the health and safety of the natural environment and the climate. Carefully assess an ongoing campaign, an environmental justice group or a government organization, and include their resources on the map to help others get involved.

## 5. Completing Your List of Sites

Share and compare lists of sites with others in your class, group and community. Decide which sites are most important and which Icons most accurately describe them. Are there any categories of sites that you missed, such as those impacted by climate change or organizations working on related social issues? Have all areas been assessed? Then, compile a final list.

## 6. Organizing the Green Sites

Organize your list of green sites by type of site and also by location and other factors. If possible, transfer the collected information into a digital format (such as the interactive Open Green Map platform) or spreadsheet. For printed or digital maps made on other platforms, you can even make up a new local icon, or use one everyone knows in your town.

## 7. Making Your Map

Tape a sketch map, photos, and other elements on a sheet of paper that is the same size as your map. Fold it and test out different formats for presentation of the data you have gathered. Use colours and design elements that will enhance the map, but will also reproduce well. Get feedback from people as you finalize the design. Use it as a model to create a clean finished Green Map.



Include a Legend that defines each Icon. Add numbered listings of sites (with or without detailed explanations). Give the map a descriptive title and add the Green Map logo (or create one for your map). Don't forget: a north arrow, the "scale" of the map, the date of creation, credits (or a photo!) for the mapmaking team, base map and important sources of information. Include a logo for your group or school, too.

**Saanich Inlet & Peninsula Community Green Map**

info at: [mapping.uvic.ca/coastal](http://mapping.uvic.ca/coastal) [mapping.uvic.ca](http://mapping.uvic.ca) [coastalcommunitymap@gmail.com](mailto:coastalcommunitymap@gmail.com)

We want your stories about Saanich Inlet and Peninsula!

Please share your story on the reverse side of this paper.

Thank you!

Name .....

Address .....

Phone .....

☐ Yes, you can share my story on-line? ☐ email? .....

☐ Are you open to a follow up interview? ☐ anonymously? ☐ first name only? .....

Story themes? .....

## 8. Map Formats

Print a folding map, postcard, or poster (even adding colour highlights by hand, if you like). Use a mapping platform. Your map, regardless of how it was created, can be embedded, scanned or photographed and posted online to reach a large audience around the world.

## 9. Telling Your Story

Send or deliver printed Green Maps or the URL for your online map to community members including neighbours, decision-makers, youth and media. Use social media, a blog or press release, and hold an event to publicize your map's completion, such as a tour, presentation, or party. Send copies to the Green Map Archive, too.

## 10. Evaluate Your Map

Draw some conclusions from the work you have done. What have you learned about the place where you live? What was your favourite part about making the Green Map? What have you concluded about the things that you can do to make your community a greener, healthier and more attractive place to live?





# Community Green Mapmaking

Here are some steps to help you plan out your community or green mapmaking project.

## 1 Aims

Why are we doing this work?

- Promote & discover
- Share & participate
- Learn & educate
- Individual reasons: what are yours?

Example: Promote citizen pride and involvement.

## 2 Questions

Why do we seek to learn or show?

- What specifically do you wish to learn?
  - Who is the information for?
- Example: What are the assets of my neighbourhood?

## 3 Needs

What do we need to answer our questions?

### Information

- Base or background data (streets, parks, etc.). Likely they already exist and you can request them.
- Focus information (sites & features of interest). This is what you'll likely need to collect.

Example: locations of services and green spaces.

### Resources

- Funding, time, involvement

## 8 Renewal

- Fresh questions
- Fresh information
- Fresh energy
- Plan next edition!

## 4 Outreach

How can we involve our community in pooling knowledge?

### Example

#### Basic Toolkit

- Basemap of region
- Pre-numbered stickers
- Sticky notes
- Pens

#### Instructions

- Put sticker on map to identify site
- write number from sticker on sticky note including site information (name, description etc.)

## 7 Sharing

How can we get our map(s) read and seen?

- Get back to your contacts and participants
- Publicity
- Launch! Distribute!
- Collect feedback and assess outcomes

## 6 Products

How can we illustrate our findings?

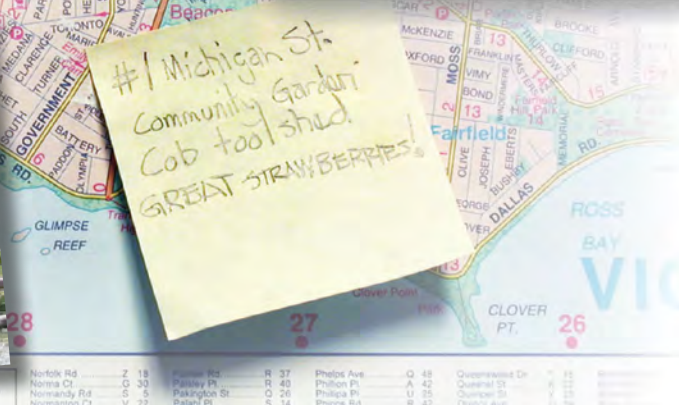
- Hand or computer - drawn?
- Basic or artistic?
- Size: wall map?
- Leaflet?
- Run: one copy? Many?
- Accessed digitally?
- Editing for clarity and composition
- Review of draft by community

## 5 Compiling

How can we pull together our findings?

- Make a table of your results
- Plot them on a fresh basemap
- Use icons (e.g., Green Map System Icons) for site type and importance (e.g., most often selected)
- Additional research and fact checking

ID	Name	Category/icon	Description	Count
1	Michigan Street Community Garden	Community Garden	cob toolshed, wheelchair beds	4
2	Community Project	Health Care	drop-in clinic	2
3				
4				





# Digital Technology and Community Mapping

Community mapping can benefit significantly from digital mapping support. There are bewildering options covering everything from data capture and storage to visualization and sharing of information.

Digital data capture has become very common. It includes not only word processing and sound recording, but also photography and video capture. Digital capture of locational coordinates also has become relatively accessible with varying degrees of accuracy, whether through a stand-alone GPS (Global Positioning System) or a GPS-enabled cell phone, camera, or computer. A GPS allows you to locate yourself and other features on a digital map, identifying exactly where your photo or video was taken, as well as tracing routes you travelled. Even more sophisticated digital data capture is possible through various desktop, laptop, mobile, and tablet applications that track and share live data between multiple users for collaborative brainstorming, drawing, and art creation, etc.

There are many online mapping tools for producing digital maps on which you can locate and make accessible your images, audio files, videos, narratives, etc. These programs are called Mapping APIs. API stands for "Application Programming Interface." APIs assume that you have some basic computing skills and enjoy computing type stuff. They usually facilitate access to various online digital base maps, and sometimes satellite imagery and aerial photography.

Most mapping APIs offer basic functionality. That usually includes the ability to produce static and interactive maps, and attach geocoded digital text, images, and video clips. Some mapping APIs support map animation, travel and transit directions, elevation data, etc. Mapping APIs are differentiated by their looks and degree of customization, unique features, documentation, ease of use, and cost.

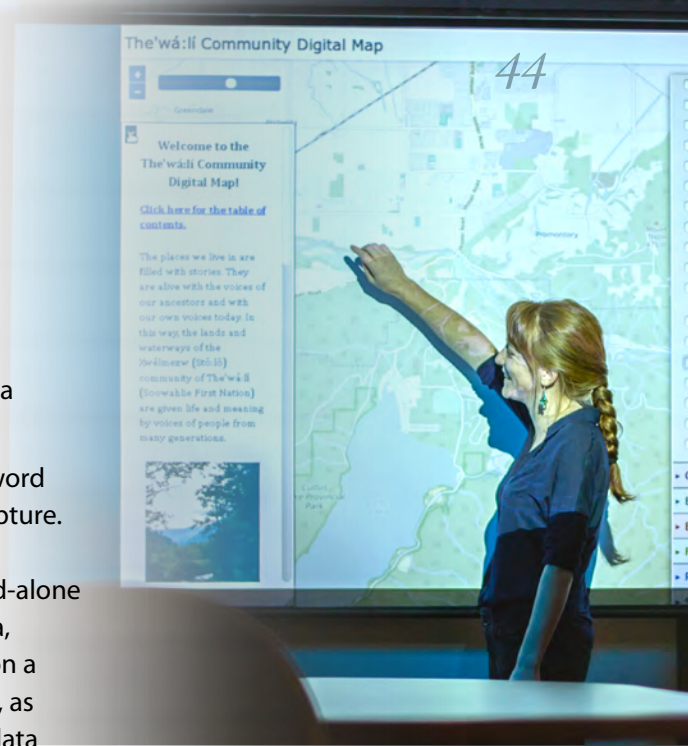
## Common Web Mapping Frameworks and APIs we are aware of include:

### Open Source basemap data tiles and API:

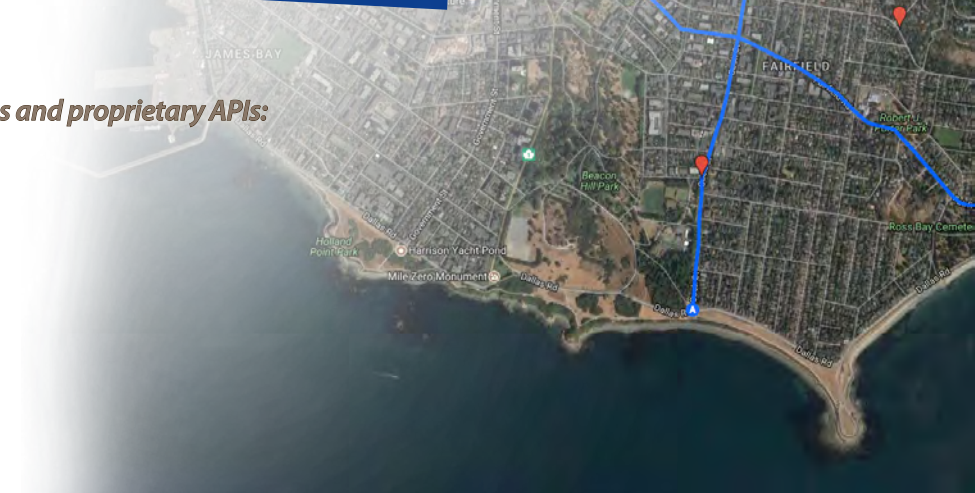
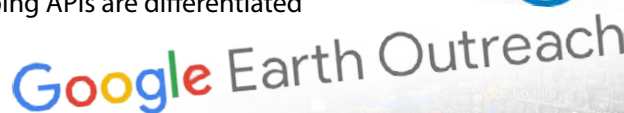
- OpenStreetMap

### Commercial providers of basemap data tiles and proprietary APIs:

- Google Maps
- Google Earth Outreach and Fusion Tables
- Microsoft Bing Maps
- Nokia's here maps
- Map Quest



*Sabina Trimble worked with the Soowablie First Nation to create an online story and history map [thewalimap.ca] as part of her History MA thesis which won the Lieutenant Governor's Silver Medal in 2017 as UVic's best MA thesis*





## Mapping projects that provide easy access to basemap data tiles

### Open source:

- Open Layers
- Leaflet

### Based on open source libraries, free and paid plan options:

- Mapbox
- Carto (formerly CartoDB)

### Proprietary license-based GIS:

- ESRI ArcGIS
- ArcGIS Story Maps



How do you choose which of the above possibilities is right for you? Digital mapping support varies in popularity. Which to use depends on what you want to do, how computer savvy you are, and how much time and money you are willing to invest. An Internet search can provide a lot of useful and sometimes biased discussions about the pros and cons of various solutions and online tutorials.

What often happens is that somebody in the community already has a particular interest in, experience with, or preference for a mapping API. Try to find local experts and invite them to be a part of your community mapping initiative. This can be a tremendous advantage in moving a project forward. However, dependence on the expertise of one or a select few can greatly influence what the map will look like, and possibly also what information will end up on the map.

Another option is to seek outside help from your local university, college, or an NGO. One of the purposes of the **Community Mapping Collaboratory** located in the **Geography** department at the **University of Victoria** in British Columbia, Canada is to offer exactly that service, including the possibility for student engagement to help with a community mapping project as part of their education. While students often bring their

own software preferences/expertise, the Collaboratory has invested in developing an open source, participatory, interactive online community mapping platform called

**StoriedMaps** based on a customized **Drupal** distribution, **Open Outreach**. Teaming up local partners and the **Green Map System**, Victoria's local **Capital Regional District Community Green Map** shows a customization of the **StoriedMaps** platform.



### Capital Regional District (CRD) Community Green Map

a celebration of living sustainably in the Victoria Region of British Columbia

Home About Map Icons Featured Sites Stories Contribute First Nations

1 2 3 4 5 6 7 8

### How to build community across cultures

ICA programs, such as language training, employment services, and settlement services, also create bridges between service providers and newcomer groups through the Community Green Map - Newcomers map. Photo: ICA

Explore the CRD Community Green Map



### Map icons

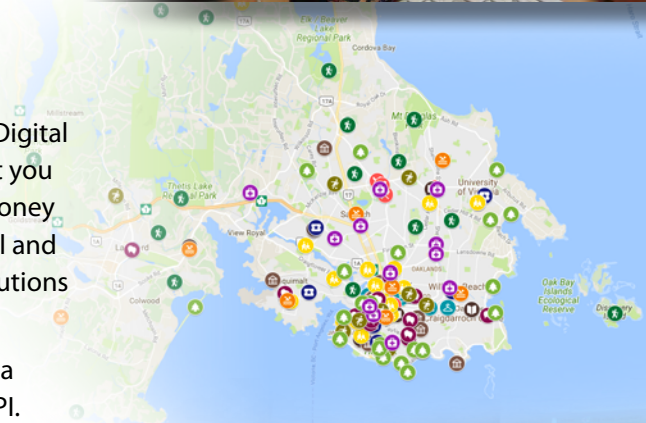


View all Green Map icons



### Open Outreach

A Drupal distribution for nonprofits





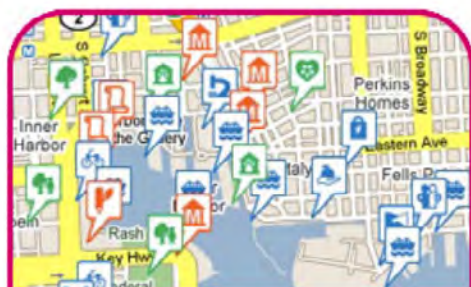
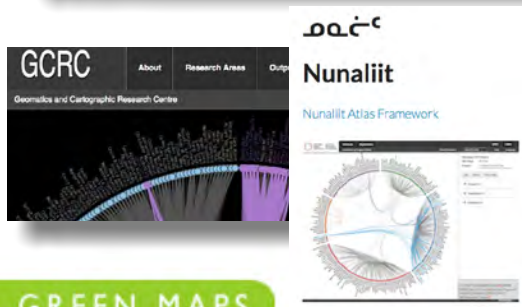
Other universities have similar capacities. For example, **UBC Okanagan** in Kelowna, British Columbia, Canada is home to **geolive**, and Carleton University in Ottawa, Canada is home to the **Geomatics and Cartographic Research Centre (GCRC)**, which developed the **Nunaliit Software**.

So why not contact your local university or college (perhaps start with the Geography Department) to see if they have similar capacity, or contact the University of Victoria's Collaboratory to see if they can help with access to a student perhaps through UVic's **co-op program**, or the **Faculty of Social Sciences, Community-engaged Learning coordinator**.

Adding a digital dimension to a community mapping activity can be empowering, fun, and very rewarding. It can allow you to take advantage of the Internet to gather information interactively through crowd sourcing, which is the process of soliciting contributions from an online community. It also allows you to share your community map widely.

There are amazing examples of digital online community maps today. Digital capacities have been used in the most innovative ways to engage communities, to share information, and to co-design visions and plans. To get some ideas, just do an online search, and if you are interested in green mapping, perhaps start with a review of **Green Map's website**.

But be aware that making the digital media part of your community mapping activity can mean a lot of work, time, and effort to build, maintain, and moderate. It usually also ends up being associated with real cost, for initial software and hardware, customization, and setup, or a more long-term need for funds to host the website, domain name registration, updates, etc. Sometimes all that is needed to meet a community mapping goal is simply a quick bit of mapping by hand. So try to avoid the scenario where enthusiasm for a digital solution takes over a community mapping initiative, hijacking the original purpose that led the community towards mapping in the first place.



Interact with Open Green Map,  
our online mapping platform



Explore hundreds of Green Maps  
created locally in 65 countries

THINK GLOBAL  
MAP SOCIAL

THINK GLOBAL  
MAP LOCAL



## Designing Maps

The following are some suggestions for designing your Community or Green Map.

### Map Components

If you would like, add one or several of these simple components to make it easier for other people to read the map.

#### Title

Make a name for your map that includes the place and a tagline that summarizes what is represented on it.

#### Direction

If you have determined the direction in which the sun rises and sets, you already know the orientation of the cardinal directions: south, north, east, and west. Mark the direction of sunrise as east and sunset as west. With east on the left and west on the right you will have south facing up between them (north does not necessarily have to be on top of the page!). Create a small compass rose or directional arrow to show your maps orientation. It could even artfully reflect your community.

#### Legend

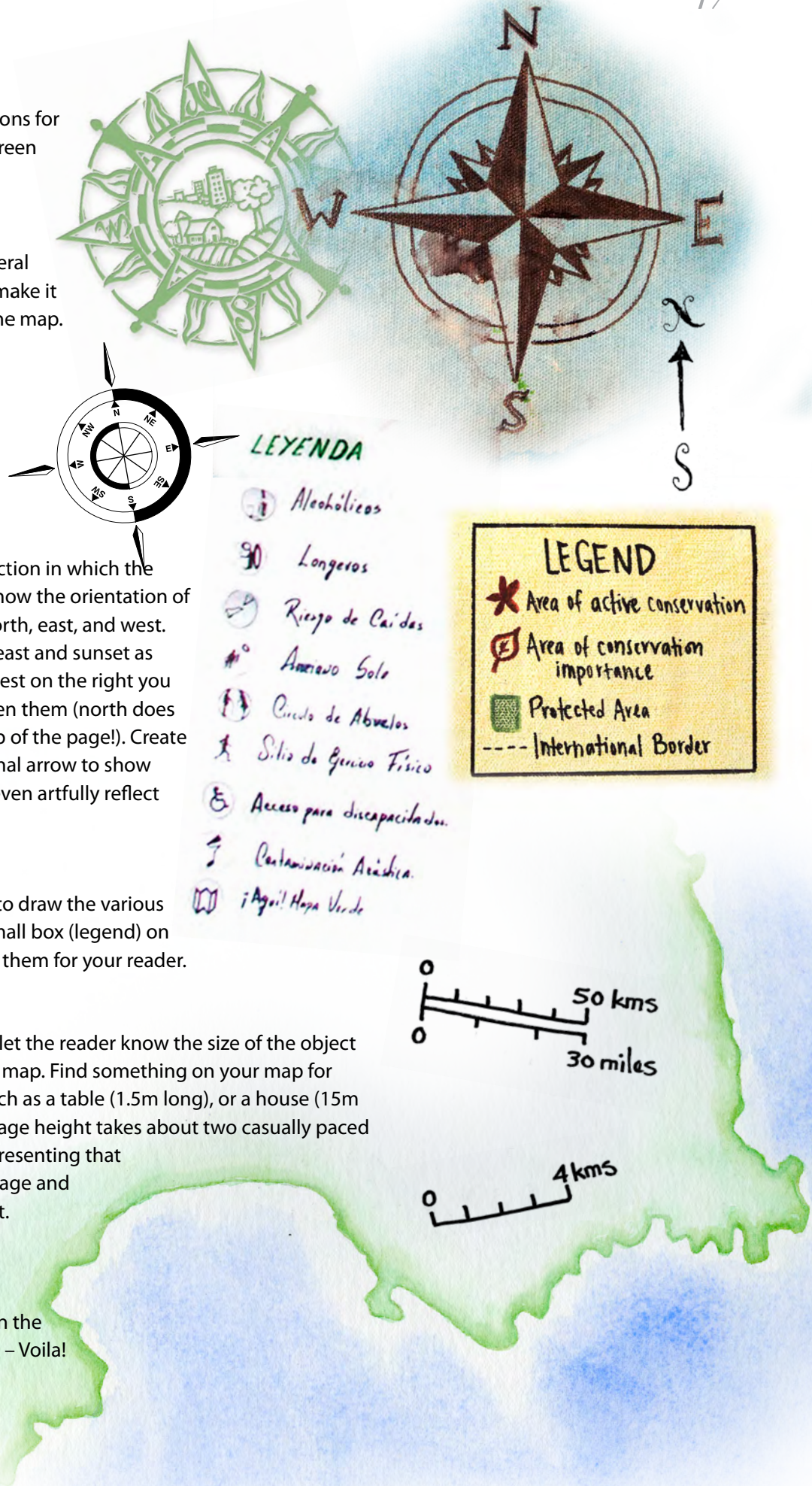
If you have been using symbols to draw the various features on your map, insert a small box (legend) on your map in which you interpret them for your reader.

#### Scale

The basic point of the scale is to let the reader know the size of the object that is being represented on the map. Find something on your map for which you can guess the size, such as a table (1.5m long), or a house (15m wide). Note that an adult of average height takes about two casually paced steps to a metre. Make a line representing that distance at the bottom of your page and note its real length underneath it. Now you have a scale.

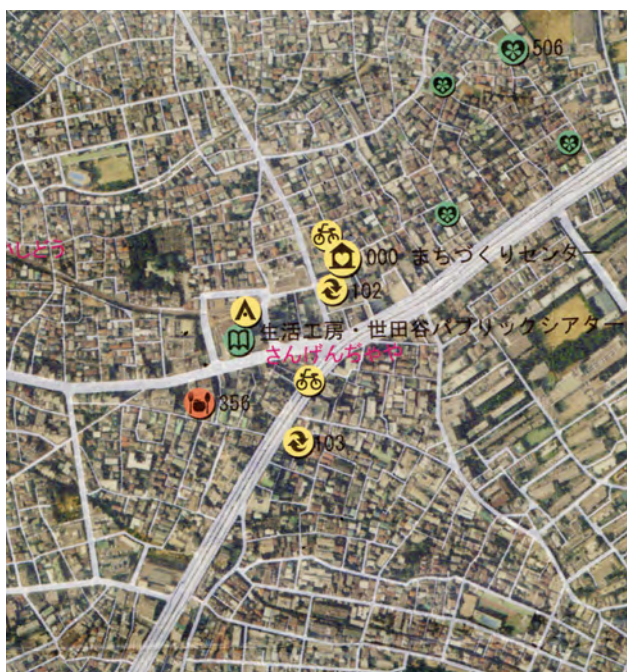
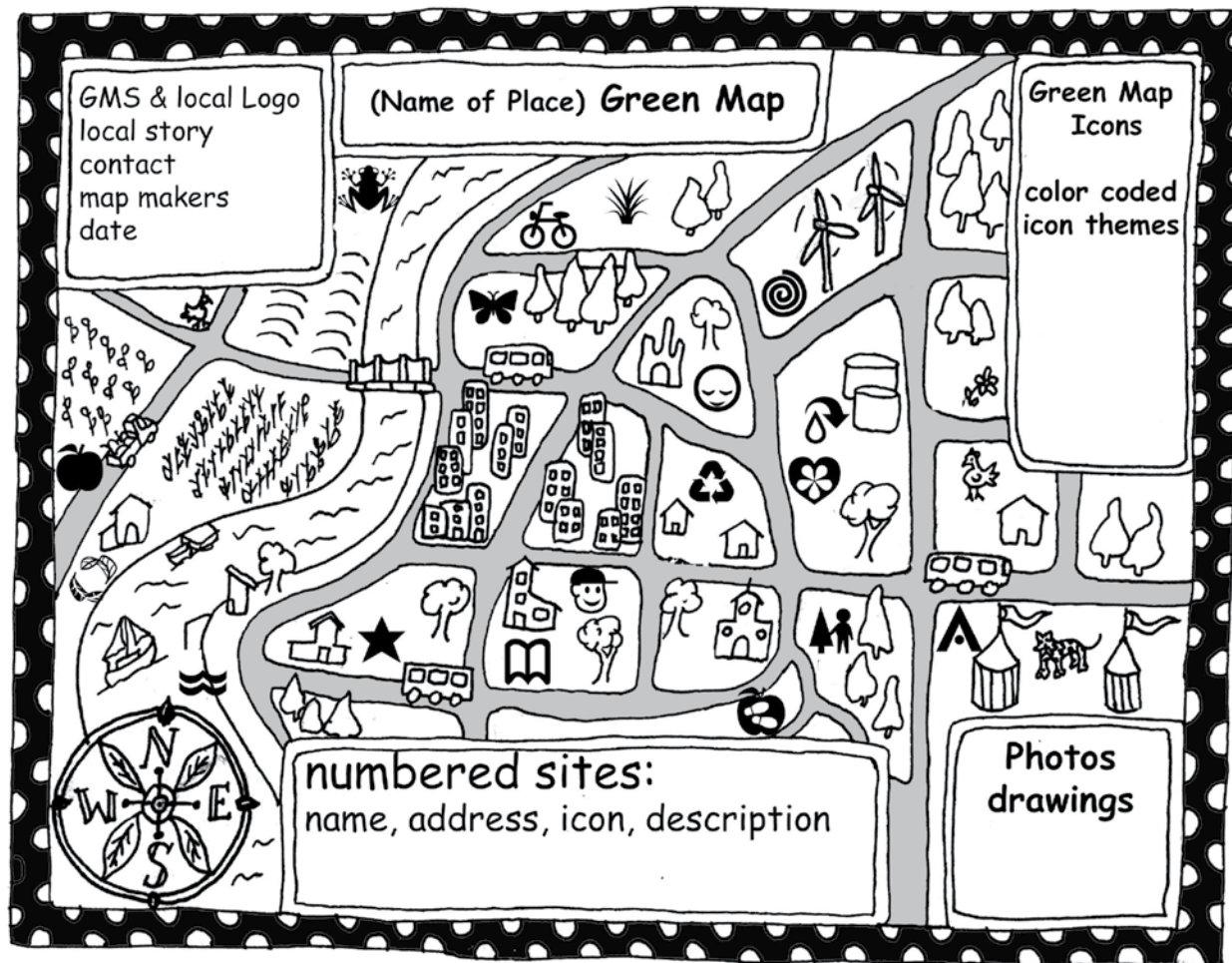
#### Production Information

Put your name(s) and the date on the map and any other sources used – Voila!





## Things to include on your Green Map:



Setagaya, Japan Green Map (aerial photo basemap)



LoMap, NYC, USA Green Map (youth oriented)



## Design Questions for Green Mappers

There are many different and engaging ways to compose your Green Map once you have researched the area you are charting. It is a good idea to consider these questions very early in the process, so the desired outcome can frame your process. You do not need to follow them in order, but if you devote a workshop session to considering them, it will help set the stage for a successful mapmaking experience.

### Who is going to use this Map?

Are they mostly longtime community residents, newcomers, or tourists? Are they students, senior citizens, or others? What map format will reach and motivate your audience – printed copies or a web-based map? One large poster map for the community centre or a mural? Or a combination?

### What about the Map's "look and feel"?

Should it have a colourful and fanciful design or simply be factual? Does it need pictures or other graphics besides the map? You might want to compare a selection of existing maps and decide together what would be most effective for your intended users (as well as your budget for publication). Consider hand-drawn vs. computerized design, and using collage, sketches, photos, and inset maps. How will it fold?

### What kinds of ecological and cultural sites are important for the intended users to know about?

Start by making a list of sites, then review to see if you are focusing attention on the full range of sites and resources you want to include. Should the map be comprehensive (with everything) and include several icons, or just a few?

### What are the boundaries of the map?

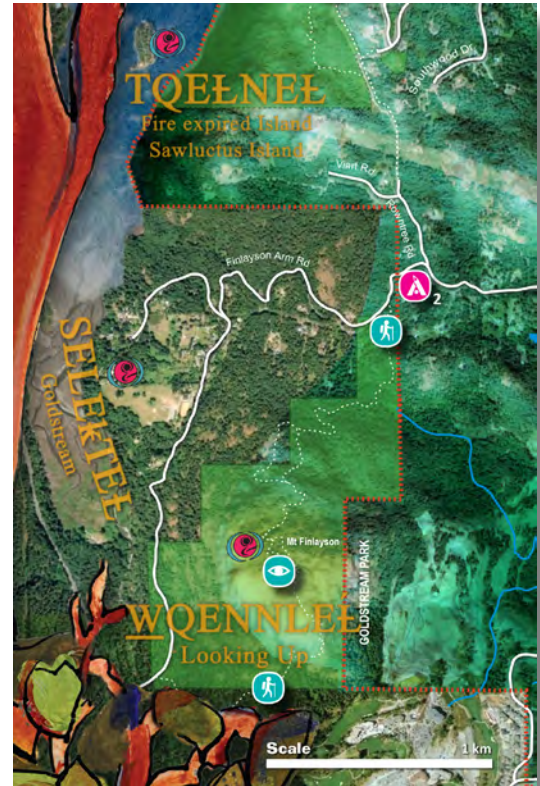
Official town boundaries, your bioregion, your neighbourhood, a meandering bike tour route, thematic maps – what will tell your story best and fit well on the sheet, too? What navigation cues are needed?

### What should stand out on your map?

What is the key information, the overall concept, and the message the map is to convey? Who will write text and/or create graphic and photographic images? Who will take care of outreach, fundraising, design, production, and distribution/marketing? All these elements are part of Green Mapmaking.

### Where will the base map come from?

From an existing map, or a GIS application, or will you draw your own? Successful Green Maps have used all of these formats.



*Highlands District, BC, Canada Green Map  
(incorporates indigenous and colonial names)*



*Okazaki, Japan Green Map  
(culture and traditions focus)*



## How do you look for information about Green Map sites?

Consider direct observation, research in books or online, surveys of residents, involving an expert in the project, and other inquiries. Record the data about each on a field report, file card, or database.

## How do you make all the elements of the map work well together?

Balance images, outlines, background, and dimensions to create an inviting map. Use the five elements of design: colour, pattern, line, texture, and shape. Share sketch maps to select the best direction for the final project. Select environmentally sound mapmaking materials, including recycled paper, and nontoxic markers and glues.

## How well does the map communicate to the reader?

Plan time for writing narratives and editing site descriptions, making a clear layout, legibility (tiny print is harder for youth and seniors to read), languages (should the legend include multiple languages?). Do not forget to proofread and double-check all details.

## How can you make the map project extend into the future?

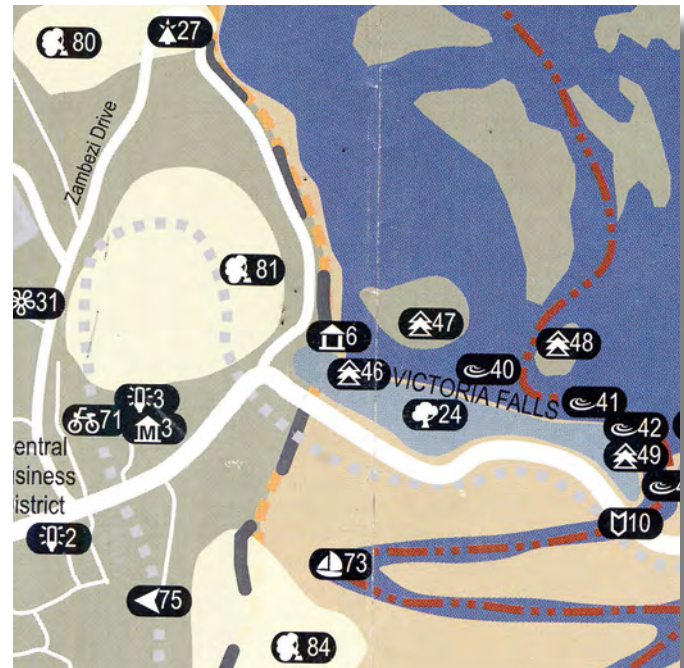
Make sure your Green Map is placed where people can see it, and ask for feedback. Plan for future updates and corrections. What is next? Should new themes or areas be charted? Will you join several workshop or successive semester maps into one big image?



*Victoria, BC, Canada  
Fernwood Neighborhood Green Map  
(decolonization and watershed focus)*



*Calgary, Canada Green Map (digital terrain basemap)*



*Victoria Falls, Zimbabwe Green Map (conservation focus)*



# Community Mapping and Appropriate Technology in Indonesia

## From GIS to CIS – Community Information Systems

The community information systems research project was initiated to explore how rural communities could best represent and communicate information about themselves and their relationship to their traditional lands, as well as assess how this information helps to inform decision-makers of community perspectives, issues, and aspirations.

Community Information Systems are digital map-based multimedia information systems, in which the traditional knowledge of the communities was gathered using digital video, digital photos, and written text, stored on a computer and managed and communicated using an interactive map. The process involved facilitating community decision-making processes relating to shaping the project and deciding what information to record, training community members in the use of the equipment for information gathering, and actual information editing and management. Both communities documented current and historical information about their culture, land uses, management practices, and significant events in their villages.

The community information systems project was developed in partnership with two rural Dayak Indigenous communities in East Kalimantan, Indonesia. This project was based in the Spatial Sciences Laboratories in the Geography Department at UVic. Other project collaborators included the Konsorsium Sistem Hutan Kerakyatan, Kalimantan Timur (SHK-KalTim), an Indonesia-based Non-Governmental Organisation (NGO), and the Centre for International Forestry Research (CIFOR). The project was funded by the CGIAR-Canada Linkage Fund (CCLF), established by the Canadian International Development Agency (CIDA). The project ran from 1998 until 2002.

by Dr. Jon Corbett, UBC Okanagan, BC, Canada

*Indonesian CIS  
interactive mapmakers*



*You introduce a mapping technology and the first thing you change is the power structure because those who like and control the technology suddenly get in power. They control the technology but the technology controls what you capture. Technology begins to shape your vision of the land. I am actually making a circular argument where you can argue that society shapes value, value shapes the research and development agenda, which again shapes values; and you are going round and round.*

*Dr. Peter Keller  
Simon Fraser University*





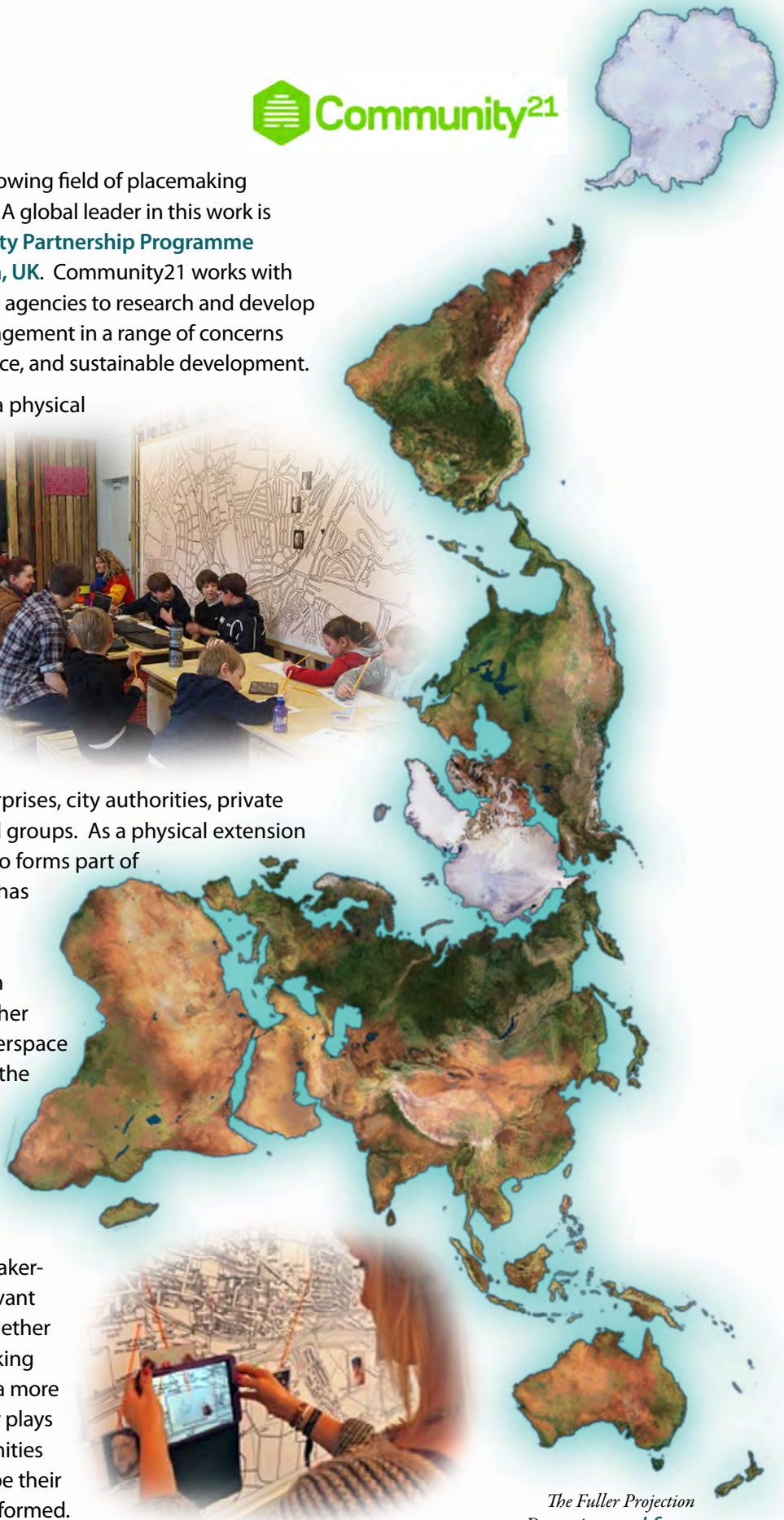
# Community Mapping and PlaceMaking



Community mapping is a key tool in the growing field of placemaking to support participatory regional planning. A global leader in this work is [Community21.org](http://Community21.org), a **Community University Partnership Programme (CUPP)** based at the **University of Brighton, UK**. Community21 works with communities and community engagement agencies to research and develop tools and methods to promote citizen engagement in a range of concerns that address inclusivity, community resilience, and sustainable development.

The Community21 **Place-Maker-Space** is a physical room centrally located in the city, and is specifically intended to generate collaborative debate and creative interaction between universities, the public and private sectors, and communities. This tests the notion of an 'urban room' in every city, as recommended by a major UK government-funded review of the built environment (Farrell Review 2014). It will be used by university academics, students, graduate social enterprises, city authorities, private companies, and community members and groups. As a physical extension of the Community 21 digital website, it also forms part of a broader 'Makerspace' movement, which has seen the development of communal craft and technology workshops that help form social bonds and develop new skills within communities through acts of making. Rather than making objects and 'things,' this makerspace makes communal visions for the future of the neighbourhood.

Our work on the Community21 digital platform has demonstrated the role that making can play in engaging different groups and communities through the fabrication of tools and maps. The Place-Maker-Space provides the physical space and relevant technologies to enable groups to come together to develop collective visions for places, making community and neighbourhood planning a more democratic process. As such, the university plays a significant role in engaging local communities and helping them to engage with and shape their locality in a way that is both creative and informed.





One of the questions explored by the space and broader Community 21 research is – What role might digital and physical making methods and spaces perform in the engagement of communities in forming collaborative visions for the future of their neighbourhoods?

Examples of the methods we have used include:

1. The production of **augmented reality techno-town-tapestries** where 'hard-to-reach' or disenfranchised groups can use animation apps to 'characterize' and map problems or ideas in anonymous ways and communicate them back to the community through a publicly accessible, intelligent interface.
2. Minecraft (a popular computer game), which engages young people in the co-production of highly interactive, 'gamified,' and realistic virtual maps and simulations of their lived or imagined spaces that can be shared locally or globally.
3. Ageing apps and role play apps that visually illustrate someone's own ageing process to elicit empathy in younger people or enable the anonymous expression of ideas and issues which we map onto wiki or open GIS maps for community deliberation.

The Community21 initiative with its digital and physical spaces provides an opportunity to co-define the challenges and concerns for research and practice with different urban and rural communities.

#### Nick Gant

*designer, researcher, lecturer,  
University of Brighton, UK*

*Nick Gant and Tanya Dean in  
collaboration*



*Talking-Techno Tapestry!*



*Voices from the Future*



*The virtual village or town*

# Community Mapping Impact

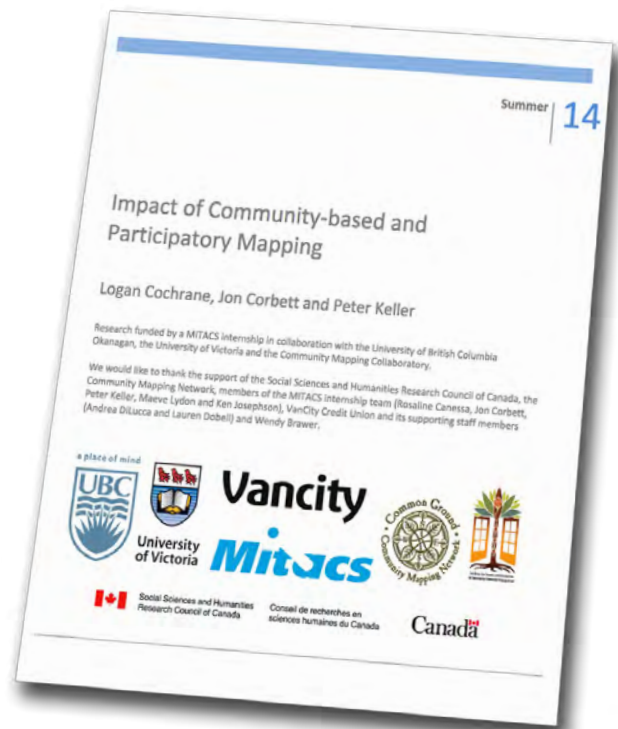
Maps are symbols and instruments of power, and mapmaking has been called the “science of princes,” a reference to maps as mechanisms of control. As GIS and digital technologies have become more accessible and affordable, the options and opportunities for community-based and participatory mapping have expanded. The traditional top-down, authoritarian processes are transforming, with localized, participatory variations spreading “like a pandemic.” At the same time, hundreds of academic articles and thousands of informal materials have been published. Yet we have limited knowledge about the impact of these shifts in processes and the outcomes beyond case studies.

Is community-based and participatory mapmaking empowering? If so, for whom and to what extent? Are these processes altering the power and control landscape embedded within maps? Is new knowledge being created? Are new relationships being established? This mapping impact research aimed to synthesize the literature to answer questions such as these.

The research reviewed 150 publications, and the analysis process examined impact within three phases: planning, making, and using. This distinction structured the evaluation of diverse mapping efforts, and supported the identification of successful practices and processes, and their respective impacts.

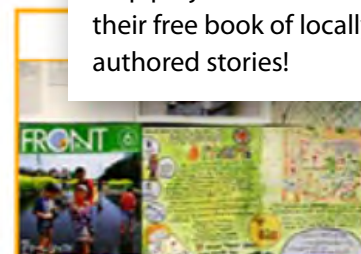
Logan Cochrane, Jon Corbett, Peter Keller

excerpt from *Impact of Community-based and Participatory Mapping*



[Download the full report](#)

## The Impacts of Green Maps



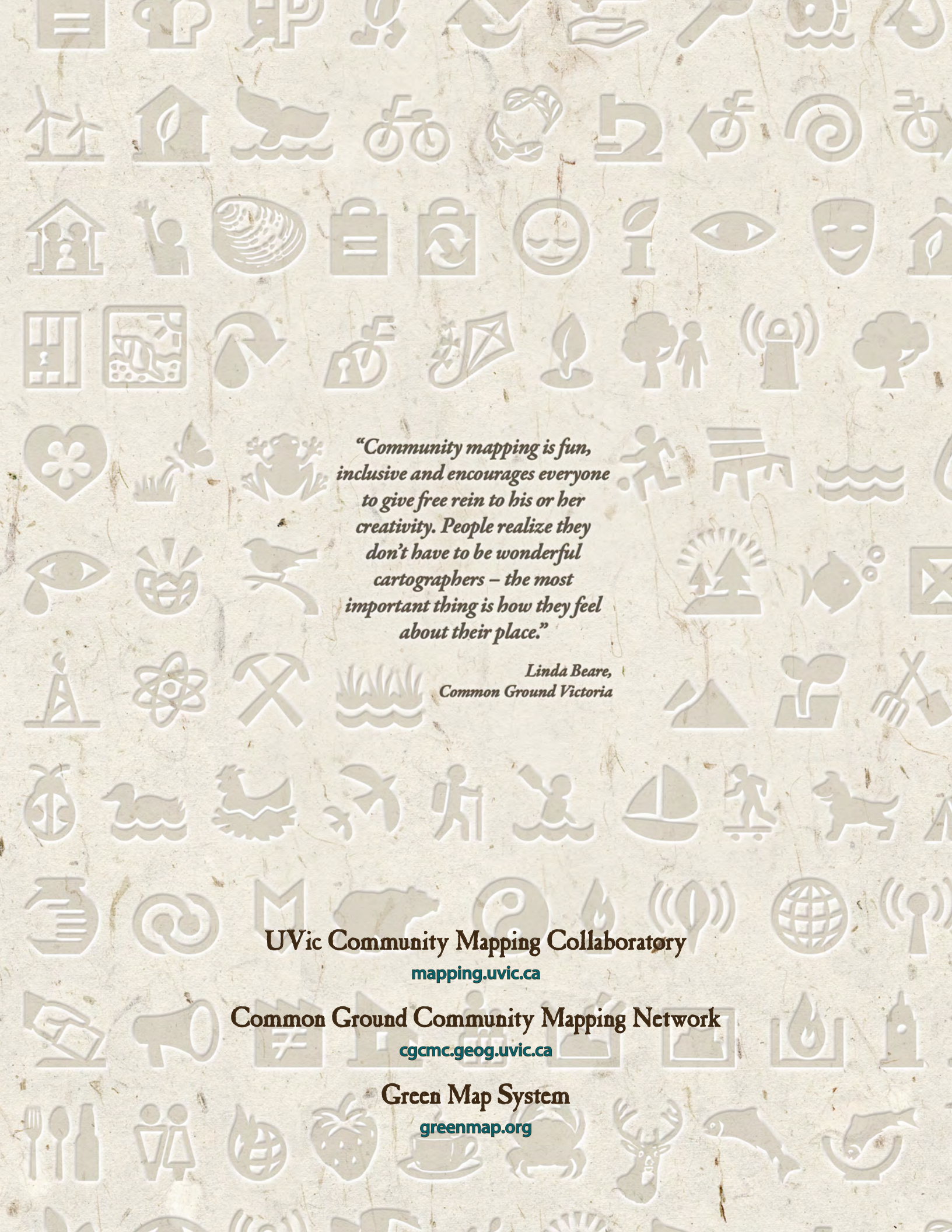
Global Green Map has also done their own impact analysis of global Green Map projects. [Download](#) their free book of locally authored stories!

**Start with the Green Map Impact Book!**









*"Community mapping is fun,  
inclusive and encourages everyone  
to give free rein to his or her  
creativity. People realize they  
don't have to be wonderful  
cartographers – the most  
important thing is how they feel  
about their place."*

*Linda Beare,  
Common Ground Victoria*

**UVic Community Mapping Collaboratory**

[mapping.uvic.ca](http://mapping.uvic.ca)

**Common Ground Community Mapping Network**

[cgcmc.geog.uvic.ca](http://cgcmc.geog.uvic.ca)

**Green Map System**

[greenmap.org](http://greenmap.org)