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A one-week transdisciplinary course on walking for 2nd-year students of architecture and engineering

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Urban infrastructure in suburban Ecublens/Chavannes-près-Renens; the course focused on this area near Lausanne in 2015, 2016 and 2017



Welcome to PQN

People need to walk. The quality of their experience however can vary greatly which in turn will impact on their decisions to choose to walk against other modes and the frequency, length, scope and enjoyment of their trips.

The Pedestrians' Quality Needs Project (PQN) identifies what people need for their safe and agreeable mobility in public space and shows the added value of a systems approach compared with sectoral approaches. The main objective is to provide knowledge of pedestrians' quality needs and how those needs relate to structural and functional interventions, policy making and regulation to support walking conditions across the EU and other involved countries.

The PQN project was launched in November 2006 and completed in November 2010. This website displays the complete project outcome.



Project partners



www.Walk21.com



www.ictct.org



www.cost.esf.org

When people think of walking...



They don't usually think of this...

Honestly, do you??



Ouest lausannois_Ecublens, Prilly, Crissier



The study area: Western Lausanne – *l'ouest lausannois*

- In central Lausanne, mode shares for walking are already very high (30-40%)
- The highest potential is elsewhere!
- Suburban settings: high populations, jobs+++
- Heterogeneous and complex territory
- This is where the new city is emerging
- Explore the potential for **accessibility, proximity, urbanity**, in peripheral areas



Pioneering a one-week interdisciplinary course on walking for 2nd-year students of architecture and engineering

BACKGROUND

Walking is the most common and natural form of locomotion. However, it is often absent from the curriculum of architects and engineers, who are ultimately responsible for designing urban space which may or may not be favourable to walking.

In a context of rising transport-related greenhouse gas emissions and record levels of overweight and obesity, there is a need for pilot projects that will help architects and engineers integrate walking into their thinking about public space.

Main points

- 1) The idea emerged from a more general one-week course on urban space, given by architect Dominique von der Mühl in 1999-2014. Her meeting the two other authors, who had an interest in walking research and practice, created a critical mass.
- 2) Led to the creation of a one-week interactive course including observation, field work, qualitative interviewing and statistical and spatial analysis. Given in 2015, 2016 and 2017.
- 3) Each year ~30 students (architecture, civil and environmental engineering) attended; assorted groups of 4-6 students were given pre-defined topics such as long-distance walking, access to and from the shopping centre, or the train station to campus commute (30 minutes, fast walking!)
- 4) Study area. Suburban territories are under-researched as regards walking -> choice of a complex and car-oriented study area around EPFL campus: 8.3 km² with 23'000 inhabitants.
- 5) Interdisciplinary course management team: urban studies, geography, sociology, transportation science, mathematics, environmental science. A central core of 3 and 4 external teachers and consultants.
- 6) Evolution of the concept from 2015 to 2016 (confirmed in 2017). Members of a partner civil society organisation with specific sensory handicaps were integrated into the course concept.

One-week block courses are part of the standard curriculum at EPFL (2nd year bachelor)

Teaching unit / Unité d'enseignement (1 week)

Entre-deux des villes et urbanité 1999-2014



UE: unité d'enseignement (teaching unit)



Various settings:
Lausanne, route d'Oron
Prés-de-Vidy/Bourdonnette
Ouest lausannois...

The idea of a full week on walking emerged from a course on urban space, part of the: “projeter ensemble” concept (engineers and architects working together on a project)

ENAC Faculty = 3 sections: architecture, civil engineering, environmental science

Objectives: learn and practice **interdisciplinarity**

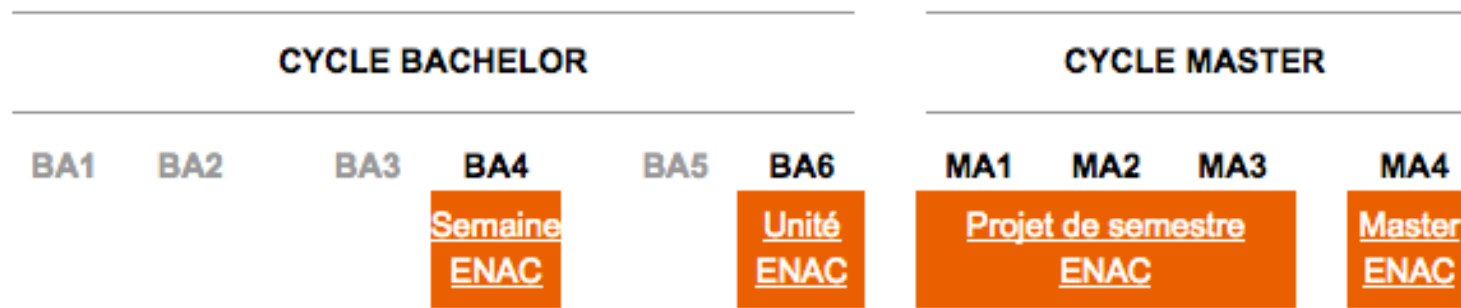
Part of 2nd year bachelor curriculum: the **ENAC** week, usually in May (one-week block course + a couple of lessons before and after)

Develop **projects** together // on a specific territory // for a practical result (product)

Students must pick one of the several courses on offer

<http://enacprojeterensemble.epfl.ch>

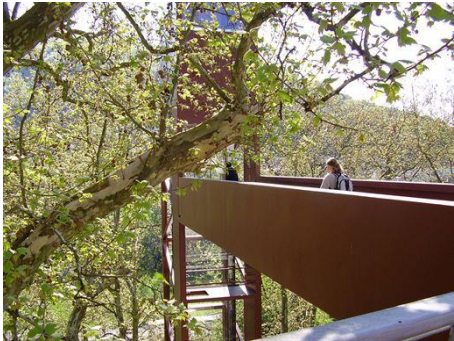
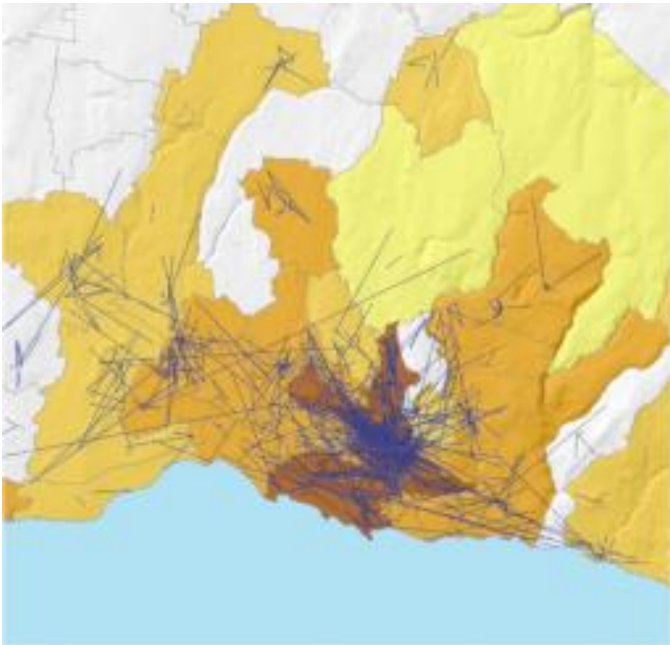
<http://enacprojeterensemble.epfl.ch/?p=1065>



	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
MATIN	INTRODUCTION	GROUP WORK	VISIT	GROUP WORK	GROUP WORK
8h15	Pecha Kucha by teachers (4x5').	THEMSES:	URBAN VILLAGE AROUND GENEVA		
	Present the 5-6 themes	Croset shopping centre	Welcome by representative of local council (if available)		
	Minimal explanations before asking the groups to get up and go and walk outside	Train station to campus	Representation then guided tour by local urban planner		
		_Sorge river			
		Around campus			
		Within campus			
		Mini-questionnaires towalkers on street			
env. 9h30	They must be out the door by 9:30 at the latest!	Helpers : Emmanuel, Derek, Thibault, Dominique + Bettina	LUNCH ALL TOGETHER AS A GROUP (sitting on the grass)		
APRES-MIDI	ROUND TABLE or SHORT LECTURES (if not Wed p.m.)	GROUP WORK	(return from excursion)	GROUP WORK	PRESENTATIONS FINALES
	Participants (4-5) :		SHORT LECTURES (if not done on Monday p.m.)		In front of panel:
	VARIOUS LOCAL STAKEHOLDERS		or GROUP WORK		Cyril B, urbaniste communal Ecublens
	• Local residents		or time off...		Jean-Christophe B, resp. mobilité douce au SDOL/Ouest lausannois
	• Representatives of the village administrations				Philippe V, resp. DD EPFL
	• Representative of local shopping centre				Représentante ONG – Association transports et environnement ou Mobilité piétonne
	• etc.				
		Around 4 pm: mini-seminar to show how far they got and exchange information.			
	Meal at local restaurant, with mayor!				
SOIR	Exporatory walk in the nighttime (Isabelle C)				

Research projects on walking in the Lausanne area

swiss mobility
conference
Piéton et urbanité



The study area – a suburban setting

What space is there for walking and for walkers in suburban areas undergoing constant change?



Objectives for the course

One week is short, *interdisciplinarity* is difficult to practice when only starting to become *disciplinary*! (2nd year)

So:

Come to terms with a new scientific topic (walking)

Understand the key **challenges**

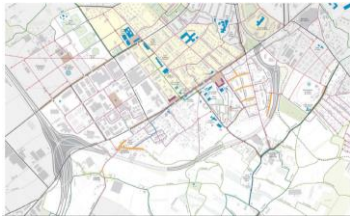
Work on a **practical project**

Interview **local stakeholders**

Working as a team **architects – civil engineers – environmental scientists**

Local stakeholders are key informants to understand urban space

Meet the people who organise and experience public space



Presentations from an expert on walking and an urban planner working on local projects

Interviews with key informants (director of social centre, director of logistics at the shopping centre, etc.)



Informal contacts with people on the street (mini-interviews)

Excursions with frequent walkers (fast walk from train station to campus: 30 minutes!)



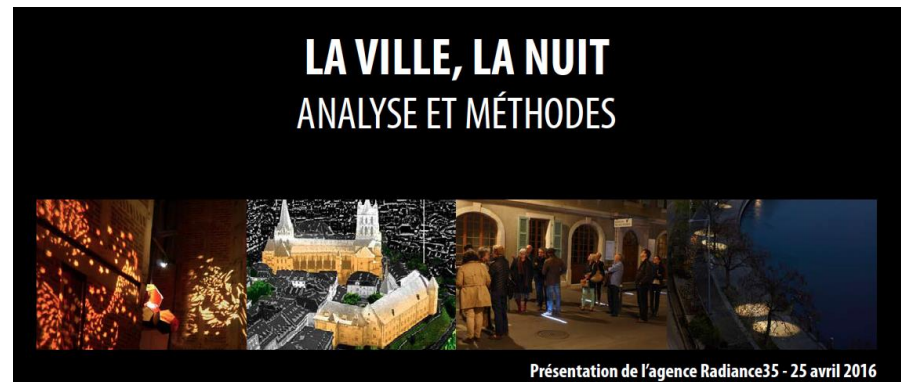
Excursions with ID-Géo consultants with specific disabilities: auditive, visual; and by wheelchair.

Social science methods in a suburban context

Experience fieldwork at night

... it's not only about interviewing "key informants"

Walking around, changing and challenging one's own perspectives



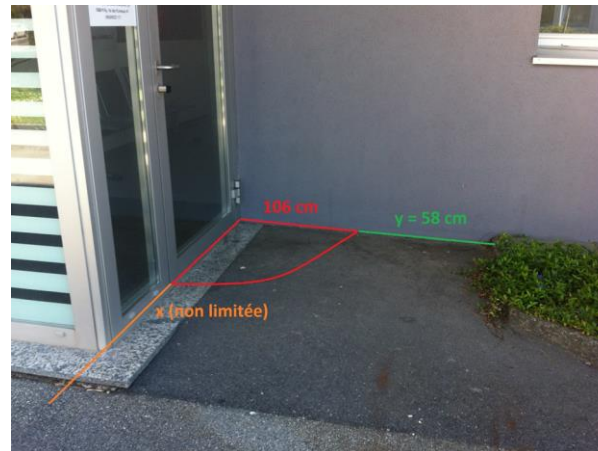
Norms ...

... are exciting!

Understand what norms are and what they are for

To guarantee universal access...

Experience lack of access in the field beforehand...



L'accessibilité urbaine, un gage de réduction des disparités sociales

Kim Brunner, Edgar Minault, Nathalie Camplani, Constance Brouillet

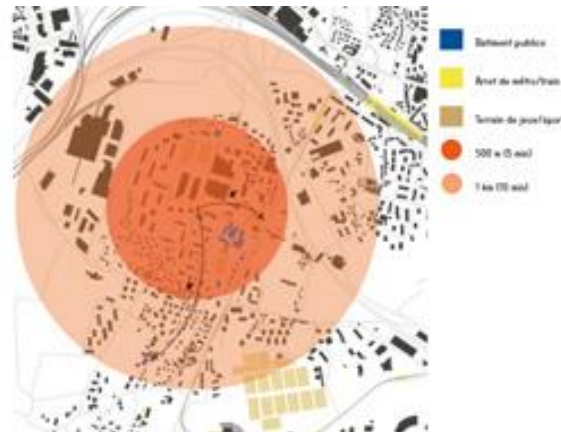
May 2016

Put it on the map!

swiss mobility
conference
Piéton et urbanité

Reinforce and explain fieldwork
using cartography

Practical support by a cartographer



On the last day (Friday afternoon): present the results

Each group presents its results in front of:

- Politicians and/or technical officers from the local council (Ecublens, Chavannes-près-Renens)
- Person in charge of cycling & walking for the Western Lausanne conurbation (Ouest Lausannois)
- Person in charge of sustainable development at EPFL campus
- Representatives of NGOs: Association for transport and environment, Walkers' association (Mobilité piétonne)

5-6 themes (one per group)...

... on the same topic (walking)

... in the same study area

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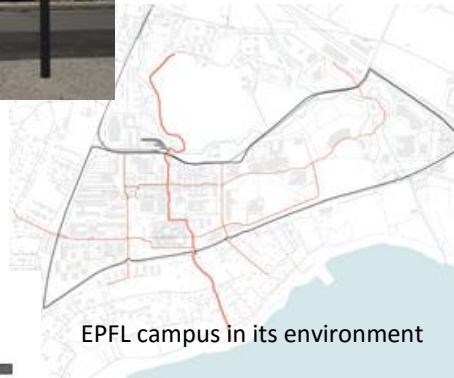
Les étudiants pendant la semaine



Walking for leisure – but not only!

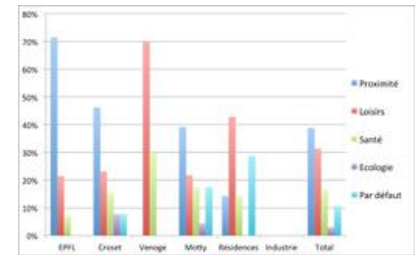


The new heart of Ecublens, a shopping centre...

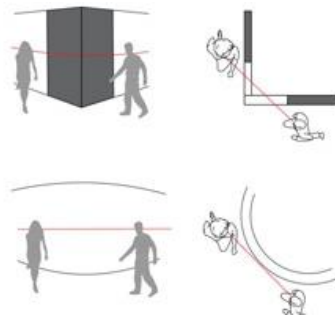


EPFL campus in its environment

A quantitative approach to walking *in situ* (mini-questionnaire)



A lovely river, but who knows about it ?



Accessibility for all – how to reduce situations of handicap (visual, auditory) and understanding obstacles to wheelchairs



Long-distance walking trails devised by students



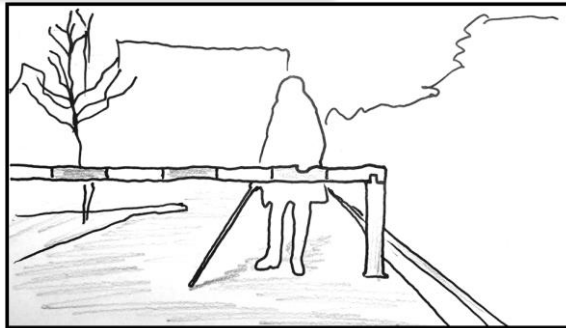
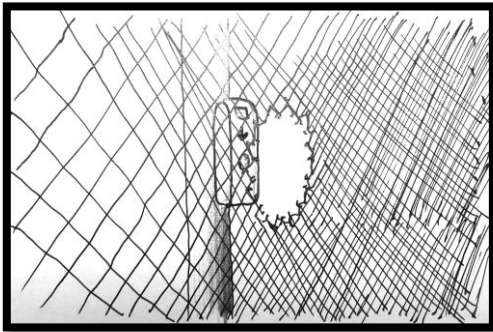
Creativity in conceiving presentations

SMC 2016

Piéton et urbanité

Students produce results during the week

- Mapping
- Drawing
- Photography / Film
- Signposting
- etc.



Conclusion and recommendations

Students rated this course very highly, with a significant progression from 2015 to 2016 (remained high in 2017).

Shows the usefulness of social science in architecture and engineering – it's the first time for these 2nd-year students!

Walking more easily understood as a topic by future architects than by future engineers, probably due to its link to public space.

This concept could be adapted to other settings. We hope it will be!

Requires preparation, a dedicated interdisciplinary team.

Choosing a study area close by and touching the campus is a distinct advantage.

Disability is a very useful gateway to make students more aware of the challenges in public space relating to walking.

Norms, especially those related to universal access, can be used to make walking of interest for future civil engineers!

Thank you for your attention!

Core team:

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Team members and consultants:

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