On a map or in the world, at the scale of a metropolis or neighborhood, solo or in a group … everything starts with a route.

LESSON I
HOW TO DRAW A ROUTE

SUB-CHAPTERS

Introduction
1) Design Principles
2) Practical Rules of Thumb
3) Bonus : Our “Mental Map of a Space”

The fundamental practice of our community of metropolitan walkers—what makes them so unique and gives them an identity—is their ability to make route proposals.

How should you go about designing a route? What tools should you use? Where should you start? With a map or directly in the field? What kinds of emotions should your trail elicit? What are some rules of thumb in trail design? Are routes a spatial or temporal art?

In this lesson, the route is conceived as a fine art.

ASSIGNMENT

Beginner

Find existing continuous spaces for pedestrians (marked trails, unpaved roads, canals, passageways, etc.) on a map (online or paper). Your inventory will give you a sense of available pathways. Write out a day trip (± 15 km) on a map or SIG (like Google Earth) and scout it out; send 2 kml files: before and after scouting.

>> SEE RESSOURCES
MAP OF BORDEAUX TRAIL
BY YVAN DÉTRAZ

Advanced

Draw a trail blueprint over a metropolis and write a 2-page explanation.

>> SEE RESSOURCES
BOSTON EMAIL BY PASCAL MENORET

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INTRODUCTION

What is a metropolis?

A metropolis is a city that creates connections over a greater or smaller expanse. Connections in a city can be physical (exchange of people and goods) and/or symbolic (places one identifies with or romanticizes). Depending on its sphere of influence, the importance of a metropolis can be regional or global. Very often, the influence is symbolic (for instance, Paris as a romantic city; Chicago as a crime capital, and so on). Because an essential feature of a metropolis is its sphere of influence, a metropolitan investigation should—or should first and foremost—explore the spatial and symbolic networks of its connections.

What is a trail?

A trail is a path. A pedestrian path—or at most a bike path. It is not a motorway or railway (with their systemic, organized topology and large radial patterns), but a thin and fleeting line that can change direction or form at any moment in unexpected ways. Ideally, a trail is a pure connection. Its physical presence owes its entire existence to its use. Trails belong more to the realm of routes than to that of buildings. The image of the "beaten path" is the strongest and most apt representation of the trail. A trail is as agile in its movements as a human being.

In the sense described above, metropolitan spaces are large socioeconomic entities with a national and even global weight. Their physical frameworks are made up of massive infrastructure, which ensure their economic position and can even become their emblems. However, such infrastructure does not account for non-physical experiences of the city—its emotional content and thinly layered network of relations.

This is what metropolitan trails do. They reveal the aesthetic character of a highly functional environment—by inviting us to visit areas significant to understanding the city as an organism, to be apprehended visually and sensually. A trail's route is theatrical—it has a choreography—and as such, it offers manifold possibilities of experience.

1) DESIGN PRINCIPLES

The experience of walking can be a burden or a privilege. When it comes to metropolitan trails, walking should always be experienced as a privilege. The path should lead walkers to an abundance of places and passages they could not otherwise access. This can be inherent to the path (a "beaten track") or it can present as a hole in a fence, a path behind a motorway, a passage in a shopping center (through entrances in the front and back), and so forth. These are all examples of spaces that are particularly conducive to foot traffic.

Here are some structural principles for a metropolitan trail:

1) General Structure

The people designing metropolitan trails have a responsibility to provide a precisely guided, non-schematic experience, with shorter and longer narrative arcs. A successful metropolitan trail is more than the linking of significant spaces. It also traces a sizable shape as a line in space.

This shape does not necessarily have to be identifiable on a map. It can also take form with the person traversing the trail, as a harmonious succession of direction changes, curves and straight lines, inclines and slopes, paces and changes in atmosphere.

2) Change in Direction

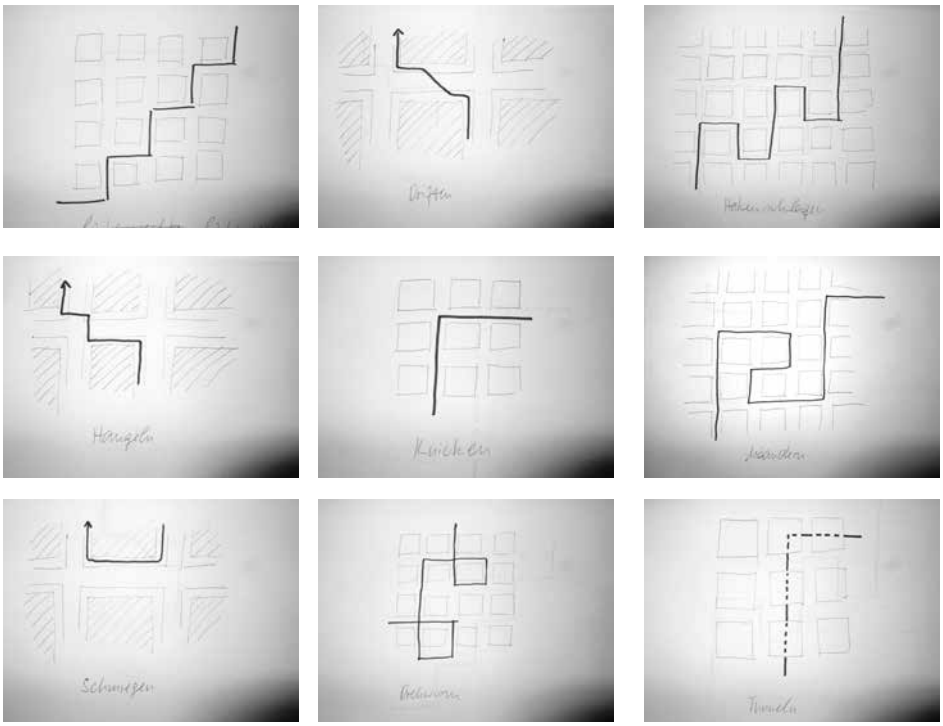
A metropolitan trail is choreography. By contrast, for example, with musicians, trail designers do not freely choose the elements that go into building a narrative arc; they can only sequence places that really abut within a city's topography. The resulting change in experience is the stuff of which the trail is made.

The choice to maintain or change directions is reflective of mood and content. A good change of direction is "refreshing". It promises a new perspective. If it is introduced as such and maintained throughout the journey, it won't be perceived as a deviation prolonging the trip but as a welcome change.

A good change of direction is both surprising and logical: that's a fundamental principle of temporal media (music, films, etc.). It needs to be surprising, but it should also make us think, almost simultaneously, "This is exactly what should be happening now". (This is especially salient in the experience of music.)

A trail follows its own logic. In most cases, that means its line is fractal. It has a certain self-sameness in its direction changes, division of se-

quences, and so forth. For instance, if I walk constantly from right to left to right, it won't feel coherent to walk from right to left to left, or simply to continue straight ahead. But if I've walked the whole time in a continuous straight line, it will also seem incorrect to go from right to left to right—I'll get the feeling I'm being taken on an extraneous detour. In essence, the coherence of a trail's logarithm depends on the environment and the goal of the trip. Likewise, a change in the logarithm should stem from the environment and represent a transition toward a new logarithm.



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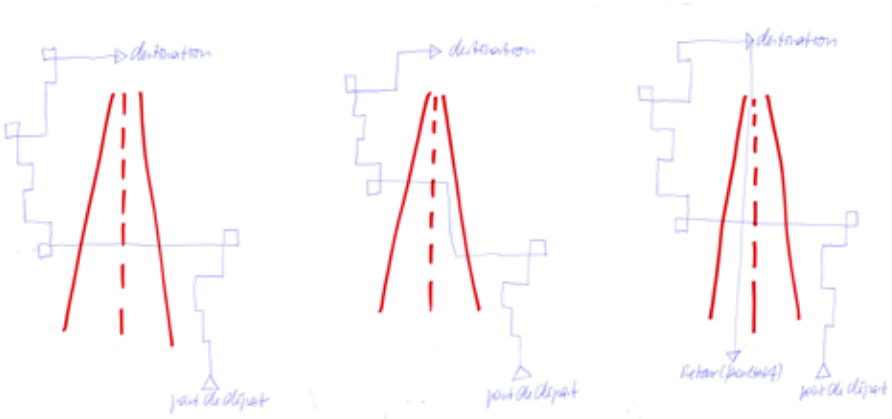
One potential issue when designing a route can be the presence of linear infrastructure (a road, canal, property limit, etc.) that goes in the same direction as the metropolitan trail. A sinuous route should not cross the line over and over again. Otherwise, walkers will quickly feel as if it dominates the experience. Exceptionally (for instance, when the motorway is the theme of the route), this can be the desired effect.

One solution to the problem is to cross the line just once: a more or less windy path can start with spaces on one side of the line and then cross over to visit sites on the other side. One creative way to finish a route is to return to the initial line at the end.



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3) Environmental Factors

These two choreography principles ("following a general structure" and "surprising and logical changes in direction") are always dependent on the nature of the trail's environment. When in doubt, a change of direction that leads to a boring environment is never the right choice. Which brings me to my next point.

A trail should always make places interesting and awaken a walker's senses. There are three things that can predict whether an environment is interesting or boring: a) how we access it (door, attendant, passageway, etc.), b) how it is presented to us (direction of the gaze), c) where we're coming from (or what was previously stimulating our senses).

This approach can make any type of environment stimulating. However, some environments make things harder than others. The challenge for trail designers is to introduce environments that are not considered aesthetic into a flow of aesthetic perceptions—by not aesthetic, I do not mean the opposite of beautiful, but an aesthetic invisibility (industrial zones and parking garages are good examples).

Dissonance in a route's level of intensity, cadence, and attractiveness can also take on meaning retroactively. A very desirable goal (like a specific point of interest) will make these "mistakes" into an integral part of the choreography taken to arrive there. This can be compared to the dissolution presented by an atonal chord at the end of a long progression in music. A strong goal point makes things easier, but this tactic should not be overdone.

Without a real agenda, the art is to come up with subtle sequences of atmospheres. Together, they should undergird a general tone, appealing to the senses in such a complex way as to obviate the need for thematization. In this sense, a successful route is always the result of an erotic engagement with the environment.

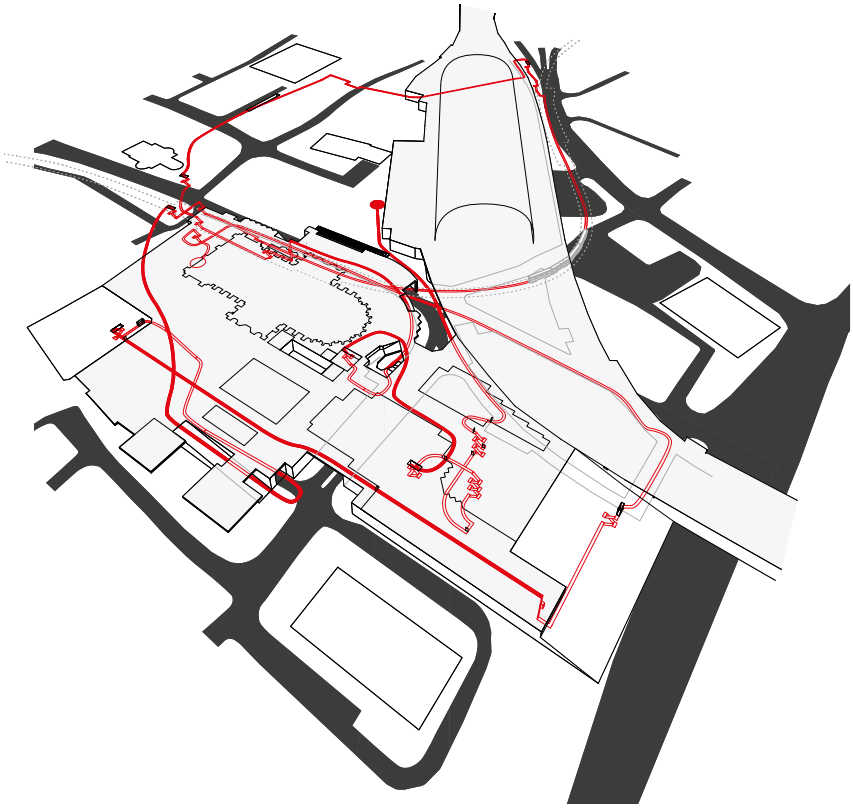
In many ways, the 3 structural principles of a metropolitan trail described above are interdependent. Due to its complex structure, a metropolitan trail cannot be designed in several successive stages. Its conception is an iterative process, in which one must alternate, through walking sequences, between the individual and the general.

2) PRACTICAL RULES

There are also simple but important design rules and guidelines.

a) Try not to divide the world into objects and intervening sequences. A good metropolitan trail should not have "in-between" stages. Many traditional city tours present the city as a "chain": in other words, they guide people from object to object (here, places become objects). The path between objects is typically only considered in functional terms such as length, pedestrian friendliness, and so forth. These tours ignore what is proper to the medium, which is to move participants' bodies through space and time.

b) The starting point for a metropolitan trail should be accessible via public transportation, ideally a large-scale transportation system like a plane or train. Starting off on foot from a train station (outside of the city center) or an airport quickly introduces users to the metropolitan trail as a contrast to our typical modes of mobility.

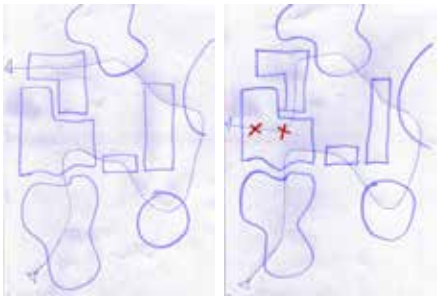


Parcours « Carambolage » autour de la cathédrale de Cologne, un cheminement de 5 heures dans un périmètre de 400 mètres, où on croise plusieurs fois les mêmes coordonnées sans jamais passer le même endroit (Image extraite du magazine *Arch+*).

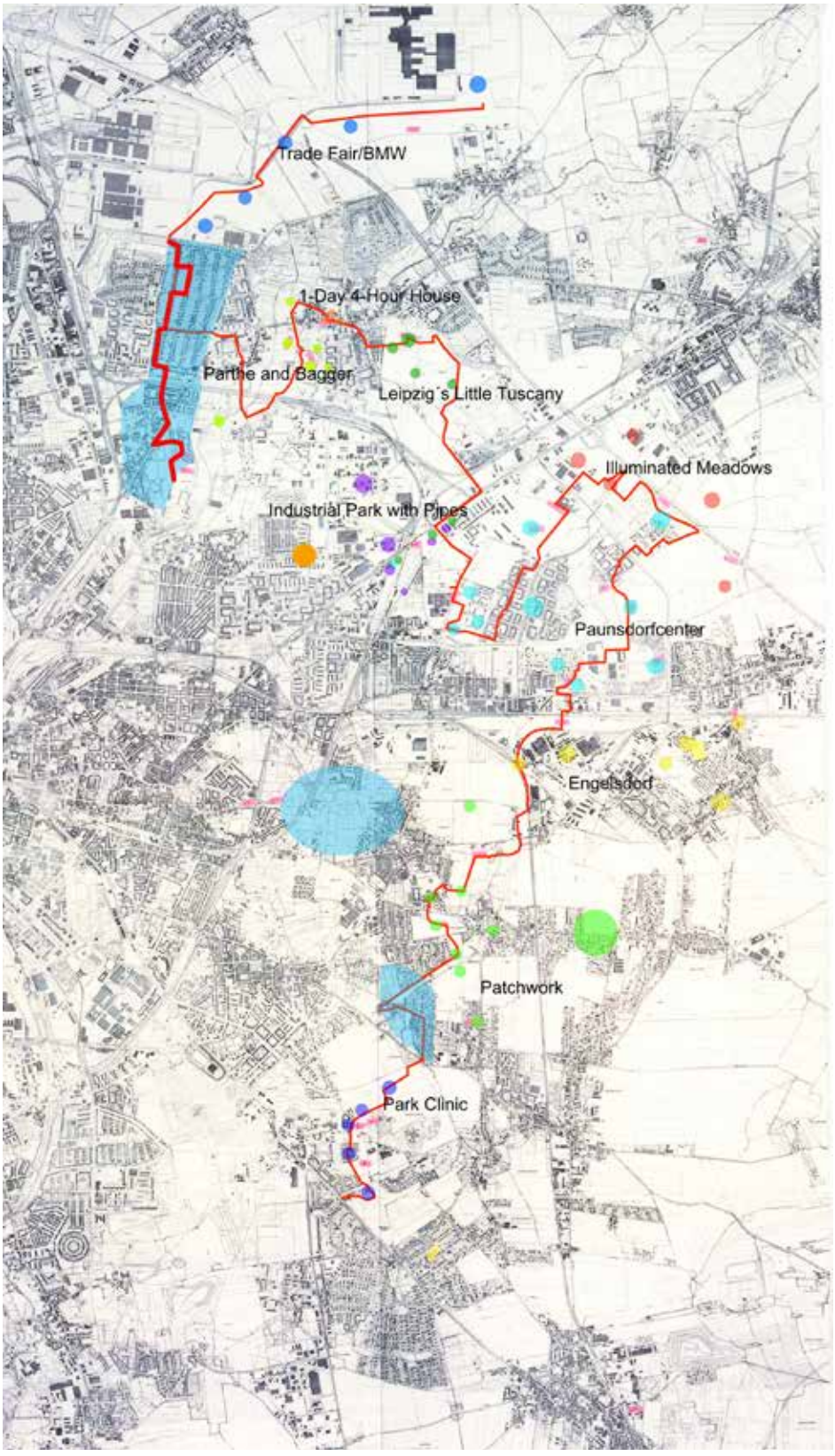
c) Never leave an area by the same means you've used to get there. This is an important rule to ensure the trail's flow. It also helps trail designers include places we typically wouldn't "visit". It brings you to places you wouldn't otherwise discover.

If retracing your steps is unavoidable, make sure you do it from another direction, ideally so the place is not instantly recognizable. Of course, there are exceptions to the rule. For instance, a trail can be made up of a series of loops (like the Terres Communes trail in Bordeaux [link]).

It may seem clumsy to return to a place you have already passed through, but if you do so from another angle, it can be extremely elegant. This expands the possibilities of trail design considerably, particularly as concerns route sequencing in urban areas, what with all the tunnels, elevators, staircases, and so forth. Returning, via other means, to a place you have already been offers a certain level of freedom in your design. For instance, you can revisit an area you have already walked through, but this time via train, boat, or bike path.



Some practical advice: after you've done some extensive research, and before you begin to draw your route, divide the area into perceived zones (this is an important step in the process of clarifying your trail and sorting through all your possibilities). Your path should never return to the same zone. The essential rule is this: enter, cross, and exit out of one zone and into another zone. Exceptions to this rule are the same as the ones for returning to areas you have already visited.



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d) Often, a metropolitan trail avoids historic city centers. Historic city centers usually act as the "nice room" in a nineteenth century bourgeois apartment: these rooms were not part of the household's daily life (and therefore were not heated); this was where the best furniture and china were stored and shown off on special occasions (like when important people came to visit or for holidays). "Nice rooms" were spaces for bourgeois families to show off a certain ideal of themselves; they did not reflect a family's reality. To get a realistic view of the family's life, one would have had to venture into the other rooms. The same goes for cities and their historic centers. The best way to understand a metropolis is to visit the laundry room.

On the other hand, a city's ideal conception of itself is of course an essential part of its identity. But visitors cannot understand a city center from this perspective (especially if they come from elsewhere) unless they come at it from the periphery. Inversely, a visit to a city's historic center creates an illusion or confusion when one goes on to visit the outskirts. So, you can certainly incorporate a historic center as a later stage in your metropolitan trail. But in most cases you should not start there! A visit to the historic center can also be made as a suggestion at the end of a walk.

e) A day trip should be between 15 and 20 km on foot. It can be twice that for bike tours. Modify the distance accordingly if you plan to combine the two.

In exceptional cases, parts of a metropolitan trail can involve public transportation. But it should cohere with the route and its logic. And it should highlight the surrounding landscape.

f) If there is a water feature where people can swim, include it on your route. Literally nothing creates a way of diving into the environment like jumping into a lake, river, etc.

g) Create opportunities for metropolitan walkers and those who live and work along the route to interact (see lesson 2).

h) Last but not least: **exceptions prove the rule.**

Bonus
OUR "SYSTEM OF SPATIAL RULES"

A metropolitan trail "forces" its "author" to understand all levels of a city. The author considers the city as a whole and in all its parts, in the relationships between its parts and in relationships to the whole, so as to make these relationships speak. The expression of these relationships is what makes a metropolitan trail political—beyond the scope of a leisure activity for hikers with a passion for geography.

A good route is also and especially interesting for locals, since it puts our mental map of a space into movement. Our perception of our environment can be described as "total": we have a complete image of our environment, which does not mean this is the correct image of "reality" (in the topographical sense of a map, for instance), but rather that our internal image of our environment represents a complete image—one without any gaps. So, one cannot get away from one's own spatial system. All spaces we discover fit into that system, and places we aren't familiar with are simply absent. We cannot escape this totality by adding missing spaces; only by putting the system into constant movement can we be freed from this totality. Only when I become aware that my spatial system has begun to move can I find temporary relief.

That's a huge moment. I would even say that this experience represents a fundamental human need, which very rarely gets satisfied by our modern models of mobility within transportation systems (railways, motorways, etc.). This is the "gift" guides can offer walkers. It's the source of wonder a surprising trail can provide. A marked trail on a map may be less free than a guided hike (a performance or event), but it should still aim to relay some of this feeling.