

## POTENTIALS OF ALTERNATIVE URBAN MOBILITY SPACES

Analysis of People's Square Station under a user-centered perspective

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ÉCOLE NATIONALE  
SUPÉRIEURE  
D'ARCHITECTURE  
STRASBOURG



MOBILITÉS  
MÉTROPOLITAINES  
INNOVANTES

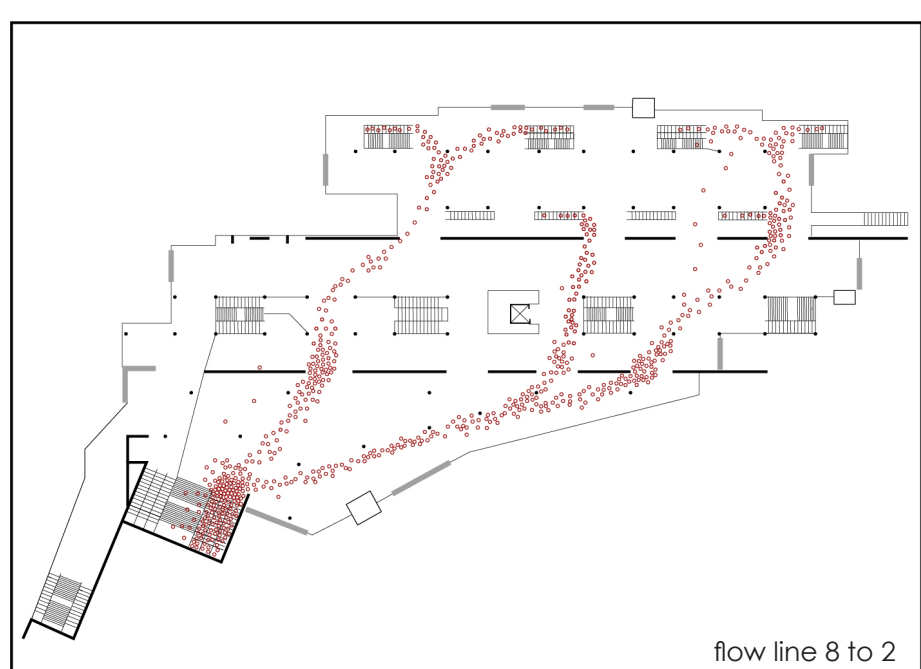
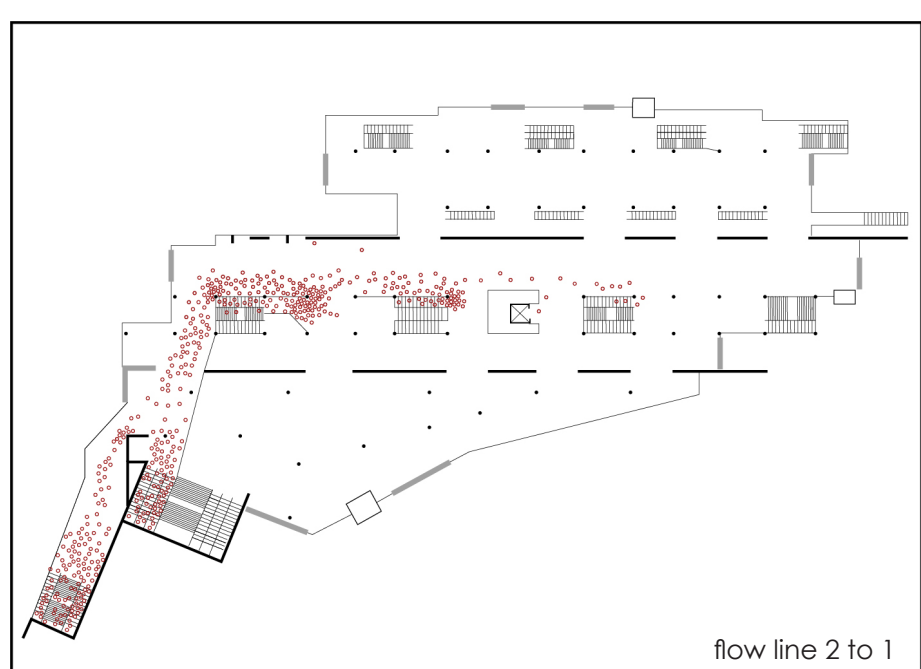
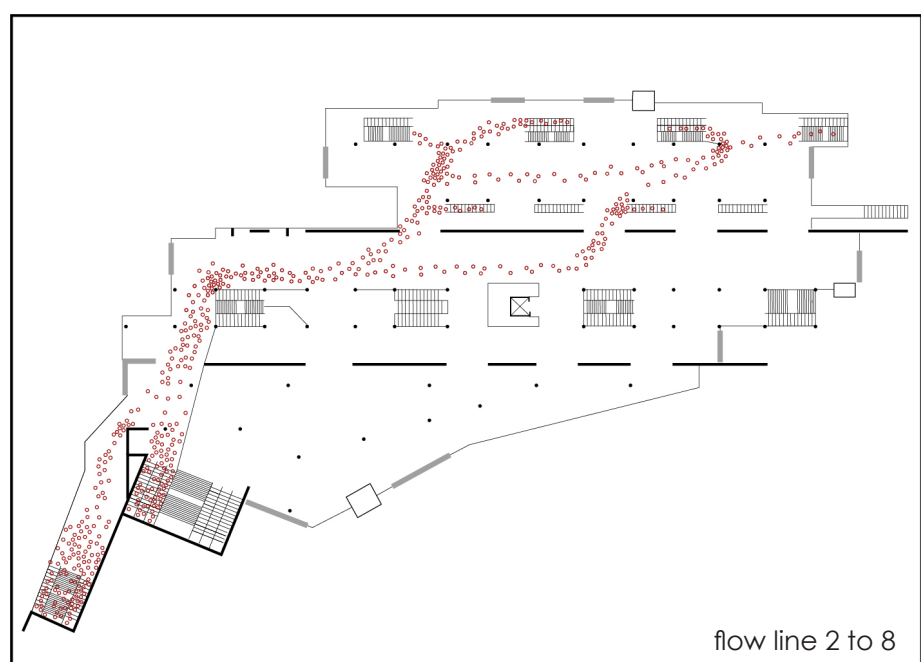


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How to raise the potential of the metro's transport space under the prism of space, rhythm and use?



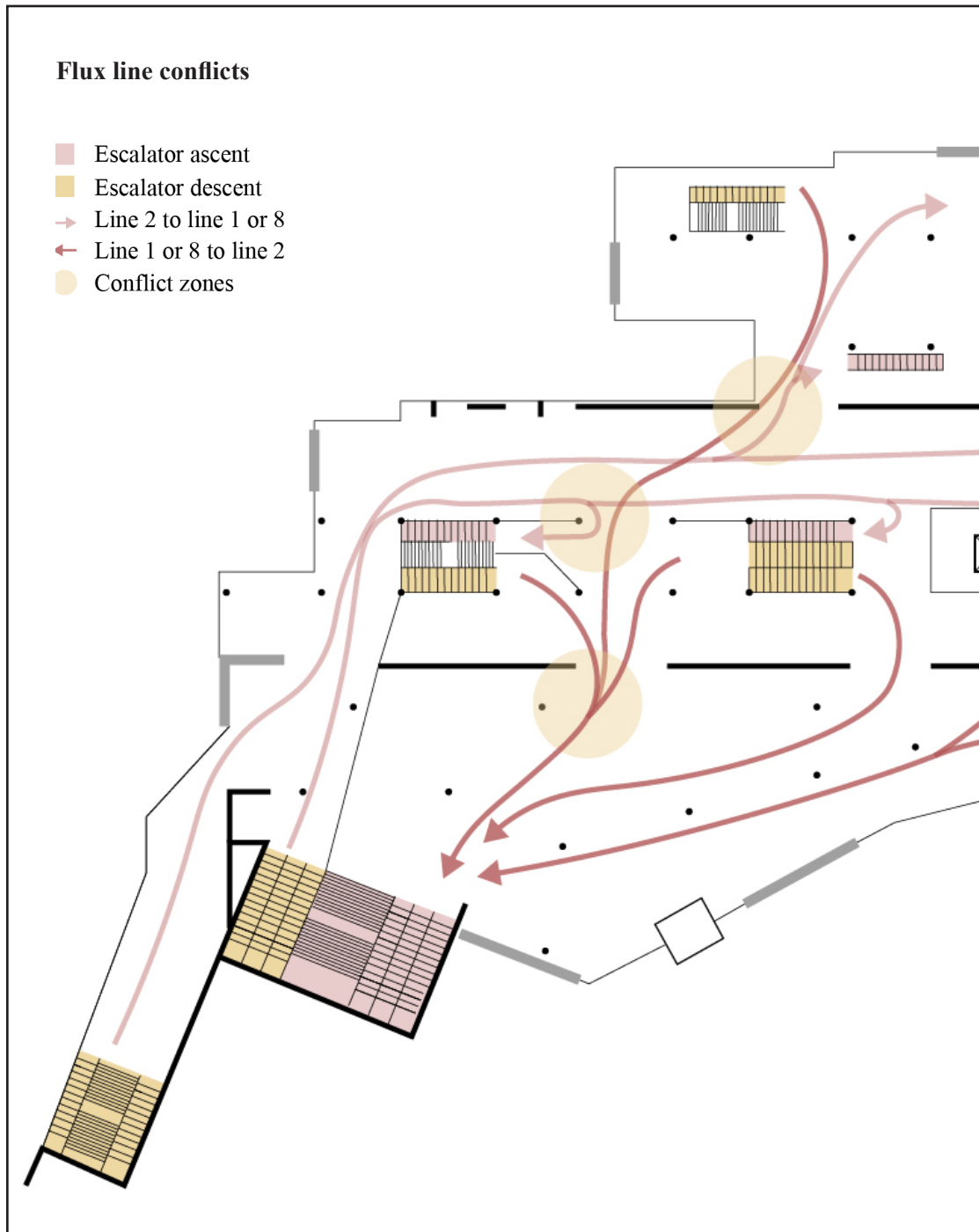
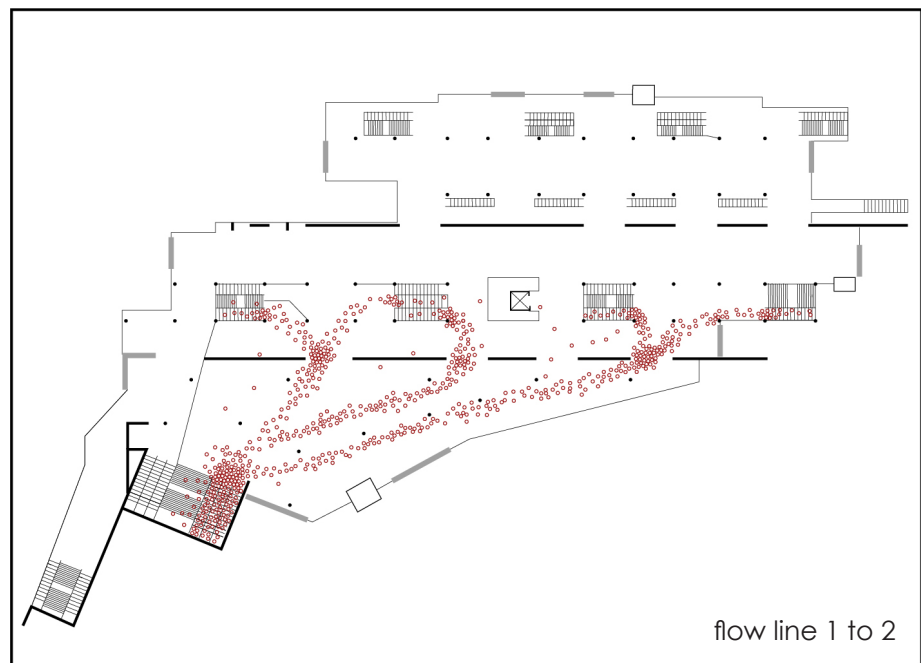
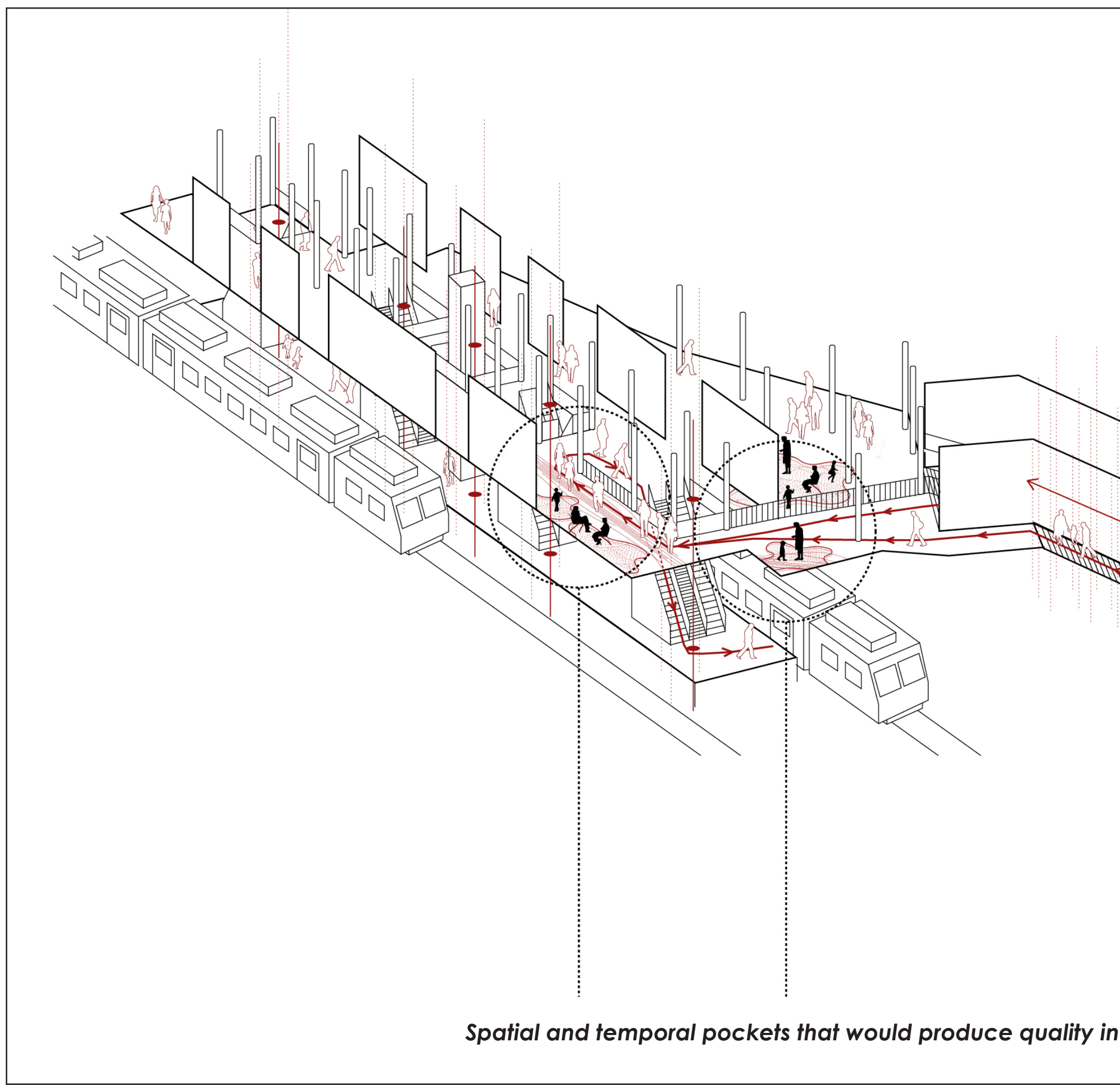
USES ASPECTS	Rapidity
	<p>The individual has a perfect knowledge of the transport space, has assimilated the routes and has a cognitive map of the place. He knows how to be efficient and looks for the shortest route. On this principle, the individual would come here to:</p> <ul style="list-style-type: none"> <li>- change the line and therefore the direction</li> <li>- to be the point of arrival on his journey,</li> <li>- or the starting point of his journey.</li> </ul>
	Leisure
	<p>The use of transport space in terms of leisure, refers to the idea of meeting and socialising. Thus, the transport space can become:</p> <ul style="list-style-type: none"> <li>- a meeting place,</li> <li>- a meeting point,</li> <li>- a place of interaction.</li> </ul>
	Immobility
	<p>Speaking of immobility in terms of uses means referring to behaviours that have a small spatial footprint. The individual does not move around or moves only a little, the causes of this immobility are diverse, such as:</p> <ul style="list-style-type: none"> <li>- disorientation,</li> <li>- of persons with mobility impairments who move according to the accessibility offered to them,</li> <li>- waiting,</li> <li>- or the break.</li> </ul>

Our relationship with urban transportation spaces has evolved over time. Initially, the focus was simply on the need for construction, efficiency, performance and number of scales, but today the situation is undergoing significant Transformation. The diversity of urban lifestyles generates different rhythms of activity and a large number of differentiated uses of space.

Our relation with public transport spaces (e.g. the metro) is no longer limited to the requirements of travel destinations, but is more concerned with the process of travelling with various activities. The rhythm of user life and usage overlap each other spatially. In multimodal public transport hubs, it is possible to analyse individual user behaviour by focusing on the rhythm of activities and the use of space, the temporality of these behaviours reshapes the static physical space in a temporal and spatially linked manner.

In order to deepen the understanding of the above issues, this study takes the Shanghai Metro People's Square Station, a multi-modal transportation hub, as a case study. It is the largest interchange in Shanghai and a major focus of traffic flow and congestion. By utilizing the underground space of People's Square and its connection to the shopping mall, it also has the potential to become a high-quality living space.

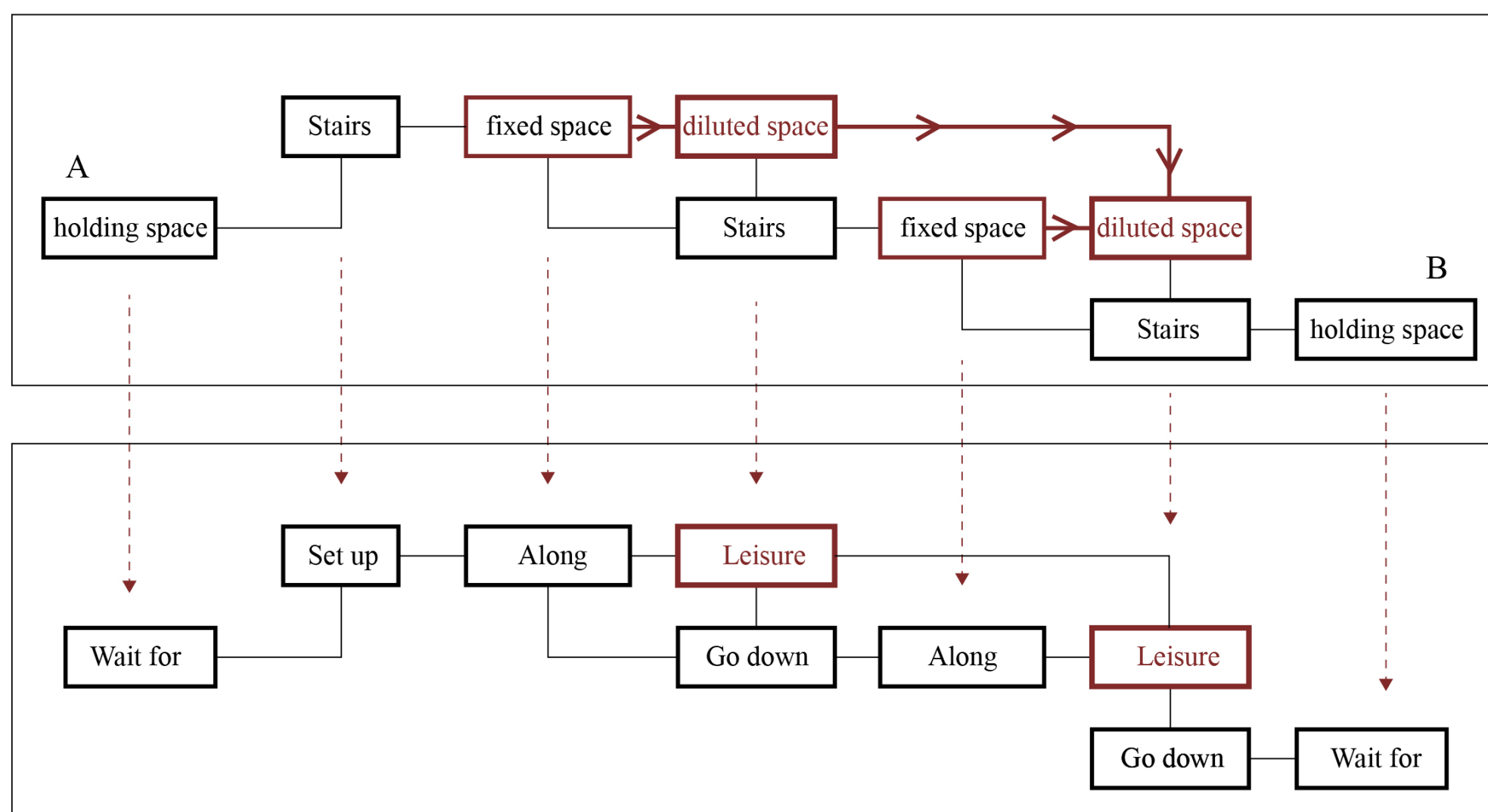
This study deepens the understanding of this complex integration of traffic spaces by observing and analysing the three perspectives of space, rhythm and usage. A new structural understanding. Moreover spatial expression is the main working language and communication tool of architects and planners. Based on the above new spatial understanding, this study attempts to address the limitations of existing graphic expressions in the new dimensions of space, rhythm and usage.



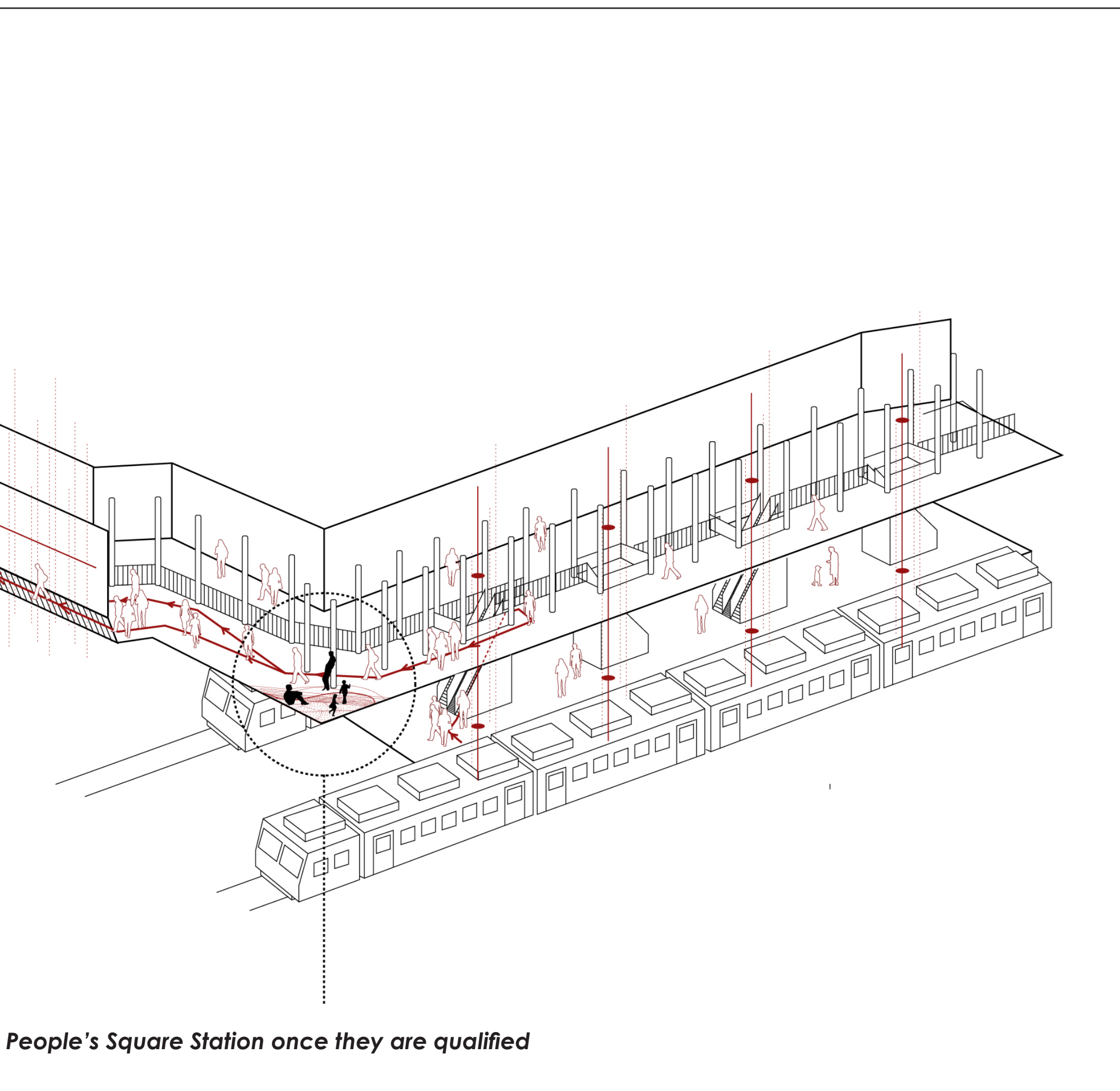
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SPACES ASPECTS	Fixed space
	We are talking about structuring elements in the transport area. They are fixed in space and time. There are: <ul style="list-style-type: none"> <li>- the solid structure (columns, walls, floors, stairs ...),</li> <li>- the removable structure (barriers on wheels, partitions),</li> <li>- control elements (gantries, security controls, boundary barriers).</li> </ul>
	Diluted space
	They are spatial pockets in which the temporality of our movement changes speed because they allow: <ul style="list-style-type: none"> <li>- a slowing down of the activity,</li> <li>- one stop, one break,</li> <li>- a meeting,</li> <li>- a redirection.</li> </ul>
	Holding space
	These spaces put the individual on hold, and allow to regulate the flows in the metro station like: <ul style="list-style-type: none"> <li>- furniture (benches),</li> <li>- airlocks (buffer space between two different locations),</li> <li>- the platforms (waiting before the arrival of the subway),</li> <li>- the ascent and descent lines (waiting and flow management).</li> </ul>

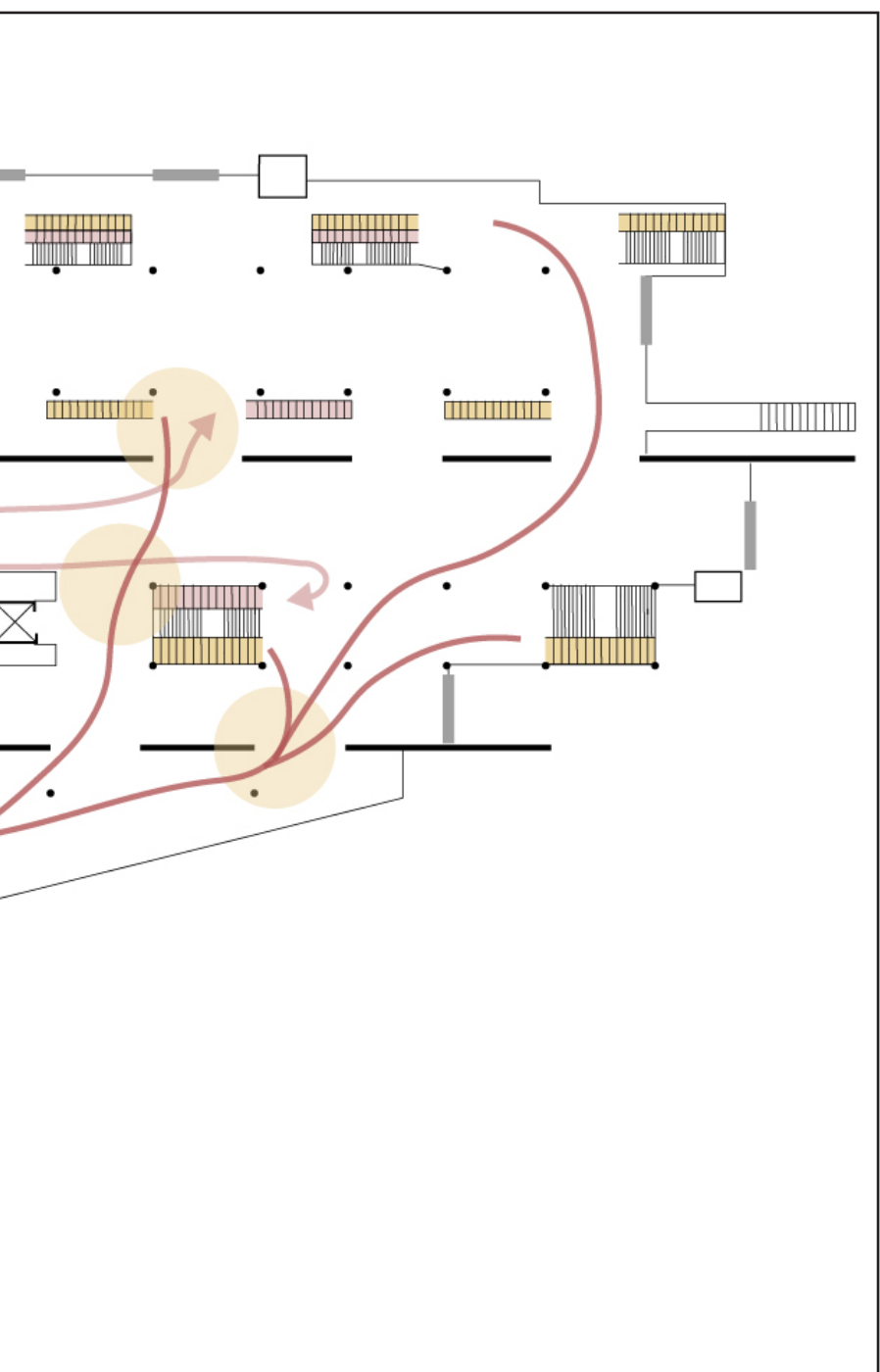
RHYTHMS ASPECTS	Rate accelerators
	It is an element present on the route that allows the user to move faster and cross the space more quickly, there are: <ul style="list-style-type: none"> <li>- elevators,</li> <li>- escalators,</li> <li>- stairs</li> </ul>
	Interval rhythms
	They appear by recurrence, by time interval between two events. They are repeated according to different temporalities between days, hours or minutes such as: <ul style="list-style-type: none"> <li>- the intervals between two subways (2 to 4 minutes),</li> <li>- peak hours (7am - 9.30am or 5pm - 7pm),</li> <li>- opening/closing hours (5.15am - 11pm).</li> </ul>
	Gradual pace
	These rhythms are unlimited, they imply a continuity between rhythms, space and uses at the same time. The individual's rhythm evolves in time and space between constant speed, acceleration and deceleration, like : <ul style="list-style-type: none"> <li>- the interchanges between metro lines,</li> <li>- the connection to the shopping centre (exit 2 or 15),</li> <li>- slowing down by changing usage.</li> </ul>



The slowing down of speeds and the presence of more fluid spaces and evolving rhythms allows the leisure aspect to develop. By identifying the attractive route, the individual has the ability to feel his needs through scenarios. Possibilities are offered to him: consume-wait-me-me-meet-observe-go forward. These different actions are associated with its movement and can give rise to new relationships to space by bringing together diluted spaces, evolving rhythms for the use of leisure.

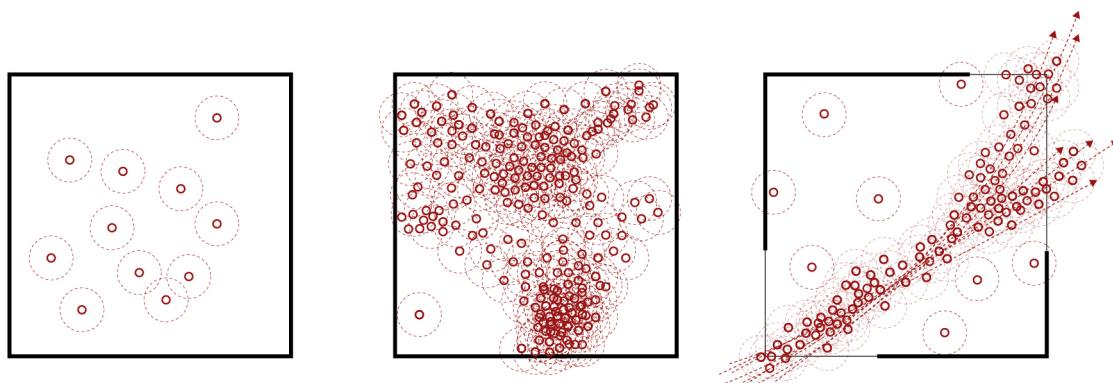


People's Square Station once they are qualified



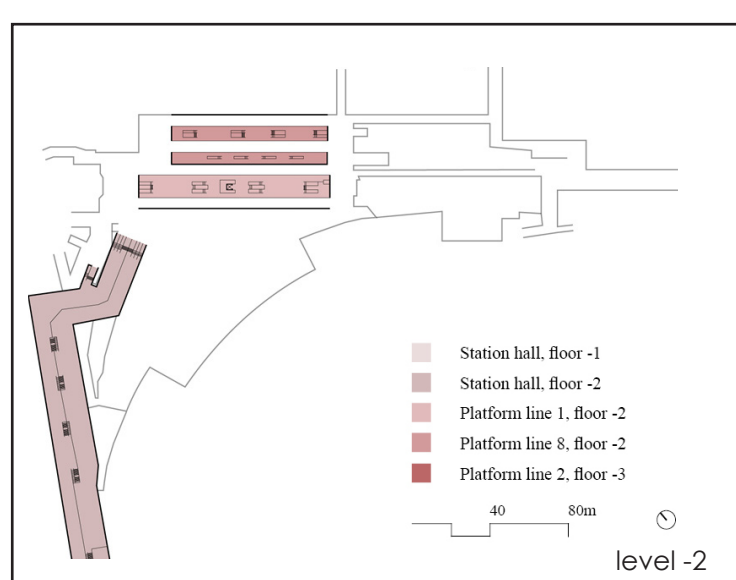
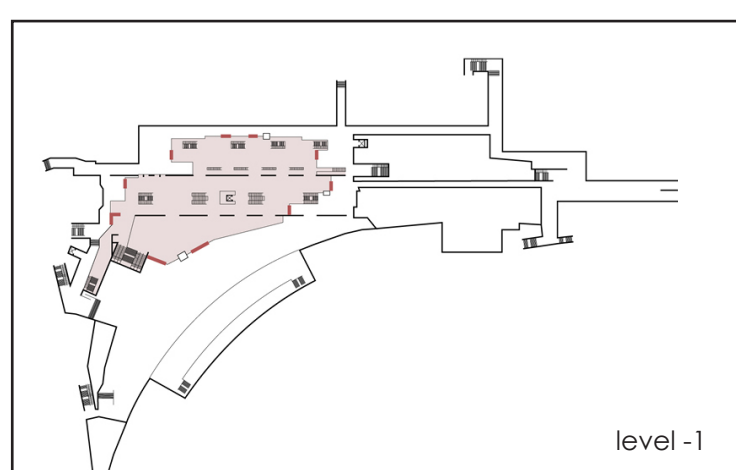
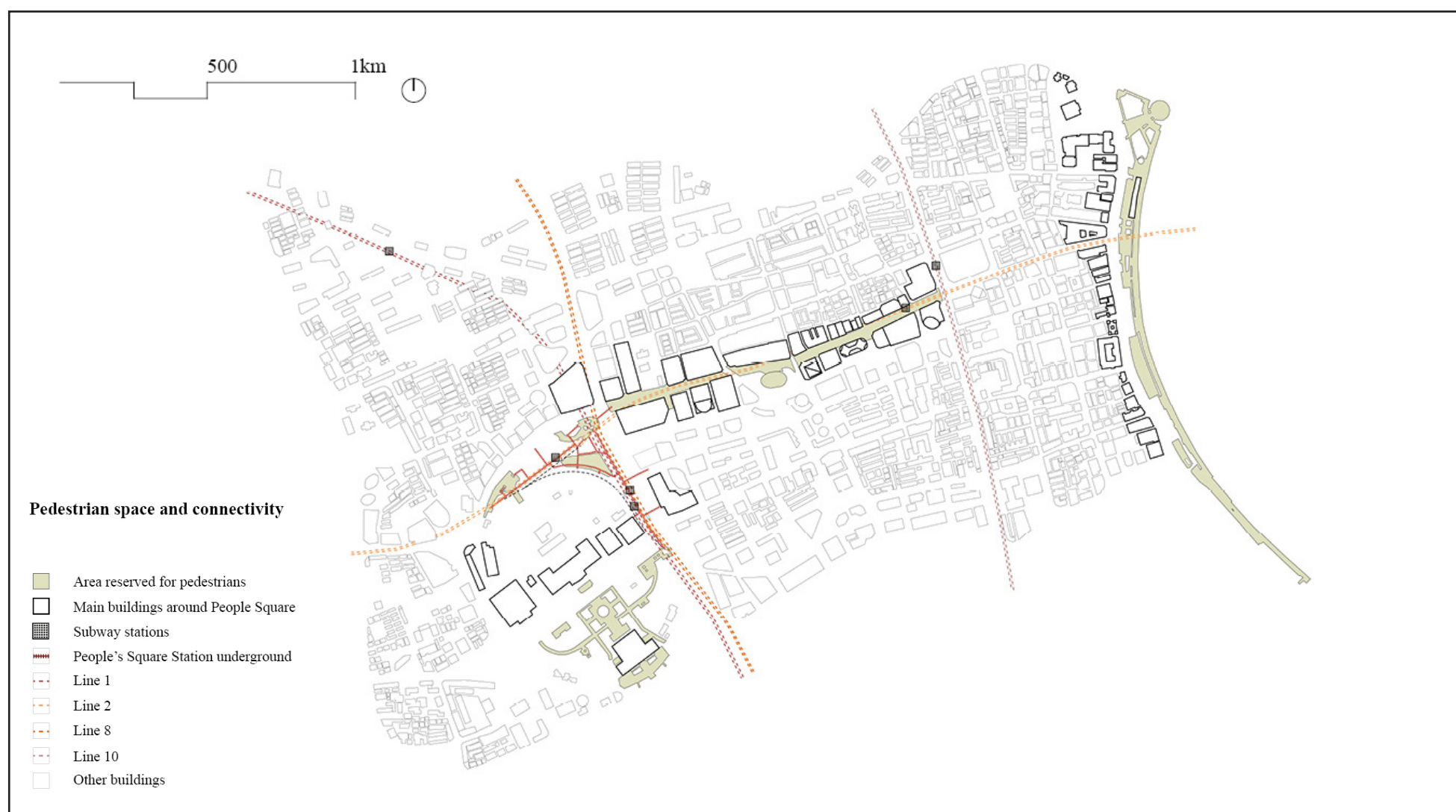
Although the pathways in terms of efficiency are designed to be consistent with each other. There are areas of conflict because we cannot predict the behaviour of each individual in the transport space. Indeed, if barriers are not installed to block the movement of the traveller, he can go anywhere. That is why even if planners try to measure the impact of the masses, of the collective in the transport space and its movement, the individual is missing and not representative of reality in the consumption of space and the relationship of the individual with it. Since in our study to speak from the user we must know how to analyze the place from individual entities of bodies. The documents represent this tendency to show a point equal to a body. A zoomed view of the space makes aspects of travel and velocity more visible and raises aspects that cannot be seen in terms of a line of flow.

This vision centred on the network and its proper functioning can today be completed by a vision refocused around the user and no longer on the network. In addition, the space is described in a very simplified way alternating between stairs, hall or platform. However, if we look at the composition of the metro station in a more qualitative way through the aspects of spaces, rhythms and uses, it is possible to take into account the multitude of qualities and elements that make up People's Square Station. Thus, thanks to a user-centred vision it is possible to talk about the space-time relationship and these multiple qualities in order to raise their potential uses.



Flow line of individual and collective rhythms and patterns

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	Old representation elements		New ways of representation
<b>System</b>	4. Dimensions 	→	3 Dimensions 
<b>Scale</b>	Classic scale 	→	Individual's body 
<b>Space</b>	Fixed space 	→	Diluted space 
<b>Rhythm</b>	Rate accelerator/ Interval 	→	Gradual rhythms 
<b>Usage</b>	Rapidity 	→	Leisure, immobility 

The body is a system of relationships between the individual and the environment. By taking into account the dimensions of the physical body and its geography, we have the capacity to produce the qualitative data ourselves, since we are the producers. The human is inscribed in relations to the physical and spatial environment, it inhabits space. Bodies model soils and are producers of space, rhythm and use. This is the result of the individualisation of lifestyles and our behaviour, which leads us to wish to be the architects of our movements.

