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**AN EXPERIMENTAL  
RESEARCH PROJECT  
FOR INFORMATION  
ON MOBILITY**

**INSTITUT  
POUR  
LA VILLE EN  
MOUVEMENT**  
PSA PEUGEOT CITROËN

CIUDAD  
EN MOVI-  
MIENTO...



ciudad legible

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**CITIZENS HAVE A  
RIGHT TO THE  
CITY,**

**A RIGHT TO  
MOBILITY,**

**A RIGHT TO  
INFORMATION**

**THE QUALITY OF INFORMATION IS DECISIVE FOR THE EXPERIENCE OF TRAVEL. IT CAN DETERMINE WHETHER YOU GET TO A DESTINATION OR NOT. TO BE ABLE TO GET AROUND CONTEMPORARY CITIES, IT IS IMPORTANT TO HAVE ACCESS TO CLEAR, COMPLETE AND COMPREHENSIVE INFORMATION ABOUT THE VARIOUS SYSTEMS FOR GETTING AROUND, INFORMATION WHICH HELPS US IN CHOOSING JUST HOW WE'RE TO MOVE ABOUT. EFFORTS TO OFFER INFORMATION --WHEN THEY EXIST-- TEND TO BE PARTIAL, RELATING TO ISOLATED STRETCHES RATHER THAN TO WHOLE AREAS. OUR CHALLENGE IS TO IMPROVE THE QUALITY OF INFORMATION, CONSIDERED FROM THE POINT OF VIEW OF THE USER AND CITIZEN, FROM HIS OR HER NEEDS AND REFERENCE POINTS, OFFERING INTERMODAL INFORMATION THAT CAN INTEGRATE ALL SYSTEMS OF MOVEMENT. THE PLANS TO WHICH THE IVM CONTRIBUTES TOGETHER WITH PUBLIC, ACADEMIC AND SERVICE INSTITUTIONS ARE GEARED TO EASING ACCESS TO THE FORMAL AND INFORMAL CODES OF A CITY. THEY ARE EVALUATED, ANALYZED, AND PROGRESSIVELY IMPROVED WITH THE CONTRIBUTION OF THE USERS THEMSELVES.**

# HAVE OUR CITIES BECOME ILLEGIBLE?

## IS IT THE SPACE ITSELF THAT'S BECOMING INCREASINGLY COMPLEX?

Cities, which in the past were concentrated within walls, today have broadened and continually expand, covering hundreds of square kilometers and forming immense conurbations which link up quite diverse spaces and social worlds. All our cities today exist under the same contradiction. In developing themselves, "cities" offer their citizens more resources, possibilities, spaces for encounters and experiences... to which it is increasingly difficult to have access, since the distances only get larger and larger. This creates a situation in which the cultural, social and economic "boundaries" multiply and the organization of spaces grow ever more complex.

The intensity of the urban fabric and the challenge of interpreting it go hand in hand. The difficulty individuals have in understanding how the city is organized and functions, and thus in appropriating it for themselves and getting about in it, resides at various levels. First of all, in its entirety: The view from an airplane of a large city shows us a mosaic of areas of activity, urbanized areas, sports grounds, commercial districts, historical centers, etc. All of these are separated by large roads and highways, train lines, green areas, vast parking lots, etc.... Louis Moutard, of Arep, observes that « the subject of the city in motion is a nomad who finds it increasingly difficult to see himself represented in the maps of a city [...] »

The complexity is obvious also in today's cities' emblematic places. Airports and pedestrian zones, cultural and commercial centers are large spaces parceled out into different environments, decorated with banners and directional signage.... Their appropriation by the citizen is not a matter of course. It presupposes a time in which for discovery and trial and error; it demands learning and clarity and legibility in the information provided.

## IS MOBILITY AT THE HEART OF URBAN ILLEGIBILITY?

The extension of cities gives rise to the development of the mechanisms for physical and virtual mobility. These networks cross boundaries, shorten the distance between the poles, and reduce urban complexity; yet, at the same time, they produce another complexity: an endogenous one. First, a complexity inherent to their respective functioning: cost of transport, in economic terms and also in terms of effort; lack of safety in one's movements, poor modal articulation, etc. Also a deictic complexity. In linguistics this term denotes words which, in a sentence, serve to show something. Deictic mechanisms or devices are those which show the space to citizens, which help them to orientate themselves, allowing them

# ES BLE?

them to read, appropriate, inhabit the city. It is the role of city plans and drawings and of their networks, of their maps, and the signals of their circulation code and of all the signals we find in cities, of the GPS systems, of signing and signals on the ground, of the extraordinary quantity of “applications” devoted to urban mobility and available now... And finally, the complexity of the safety devices that regulate access to the mobility systems: toll barriers, the porticos at airports, parking barriers, machines to validate vehicle registration and transportation users, the driver’s license, credit cards, payments and monthly or seasonal user’s passes, etc. Cities, with their transportation networks are by no means spaces of freedom. They saddle travelers with entering and exiting protocols and separate them by social and economic criteria. The predicament of the city’s legibility/illegibility may be appreciated in different registers: public space, urban forms, etc. The project is undertaken from the perspective of the practices of individuals’ mobility.

## THE FOUR REGISTERS OF THE MOBILE INDIVIDUAL

**A CITY’S LEGIBILITY PRESUPPOSES THE COMBINATION OF FOUR REGISTERS: THE SUBJECTIVE GEOGRAPHY OF SPACE, GUIDES FOR GETTING AROUND, THE KEYS TO MOBILITY AND THE SOCIAL SKILLS FOR MOBILITY.**

## THE SUBJECTIVE GEOGRAPHIES OF SPACE

**IN WHAT WAYS CAN WE REPRESENT SPACE?  
HOW DO INDIVIDUALS APPROPRIATE THE TOOLS  
DEVELOPED BY URBAN OPERATORS: MAPS, CITY  
PLANS, NETWORK PLANS, INTERNET TOOLS, ETC.?  
IS WHAT EXISTS ADAPTED TO ALL PUBLICS? TO ALL  
WAYS OF REASONING? HOW, CONCRETELY, DO THE  
TOOLS FOR REPRESENTING SPACES OPERATE? WHAT  
ARE THE PERTINENT REPRESENTATIONS FOR SPECIFIC  
POPULATIONS IN EACH PLACE?**

A first dimension of legibility is that of the subjective geographies of space. From the point of view of the individual, the city is not an undivided space identical at all points. It is a mosaic of known and unknown spaces, gravitated toward to or avoided, liked or feared. Space is qualified subjectively by the individual, and that qualification explains how she or he chooses to get around: for instance, a person makes a detour to avoid a neighborhood she or he doesn’t like, etc.

This subjective qualification relates to the infinite diversity of experiences and socio-cultural belonging that individuals experience. The perception and practice of urban spaces vary according to whether you’re a man or woman. In certain cultures, public space is reserved for men. The territory is also qualified by age. With adolescence, the individual gains the right to go distances from his or her home.

Economic capacities also serve to discriminate in the practice of cities and the moves made within them. The qualification in spaces depends, furthermore, on each person’s unique experiences; a person who remains unemployed will, from night to morning, avoid the neighborhood in which she or he has worked for a long time. This register is the one most turned to for prime evidence in surveys of territory made to understand the way in which individuals apprehend the city and organize their movements within it.

**Eric Le Breton**

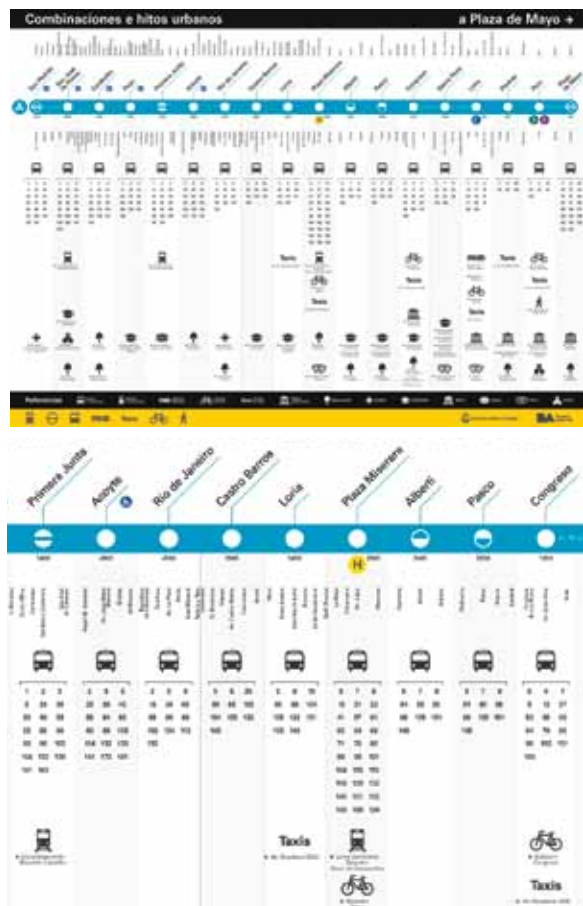
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content/les-dimensions-pratiques-de-la-mobilite](http://www.ville-en-mouvement.com/fr/content/les-dimensions-pratiques-de-la-mobilite)



# CONTEXT

## A LEAP IN SCALE FROM THE MUNICIPAL GOVERNMENT

The City of Buenos Aires took up the challenge and developed the project institutionally on another scale. What is unprecedented and innovative is that it provides information on the whole set of modes of transportation (train, subway, bus, bicycles, pedestrian paths), and also urban landmarks, cultural, touristic, and general-interest references.



This new experiment, in the framework of a more formal collaboration between the Institution and the area of sustainable mobility of the city government, has been led by Paula Bisiau, General Director for Sustainable Mobility, who coordinated a team of young designers headed by Juan and Ramiro Cavia with the guidance of the IVM for the application of the Protocol represented by the architect Horacio Aiello. In this stage new modalities were fitted to the application of the protocol, international exchange intensified, in particular with the contribution of Joaquim Redig, a specialist in design and professor at the Pontifical Catholic University of Rio de Janeiro, in a cross-fertilization between the protocol and the iconographic representation that had been investigated under the title Rio Identidade by Marcel Smets, president of the Scientific Advisory Board, and with IVM orientation, in a series of conferences at Universidad Mackenzie of São Paulo and the Centro Metropolitano de Diseño de Buenos Aires [Metropolitan Center of Design] and Georges Amar, former director of planning/ futurology at the RATP (the Paris Transport Authority).

## THE PROTOTYPES OF DIAGRAMS

But this stage, fundamental and on an entirely other scale, was arrived at only after a set of prior advances. Based on various preliminary studies, the concept was designed of a diagram prototype that provides information by interpreting the perception of a trip by the passenger, who is located in its surroundings with what she or he manages to see out the window and with the turning sensation from left to right that the bones of one's middle ear give. With the help of the firm "Nuevos Rumbos" [New Directions], diagrams were developed as a pilot test in some buses of the line 132. We asked the opinion of passengers and of some leaders in sign design

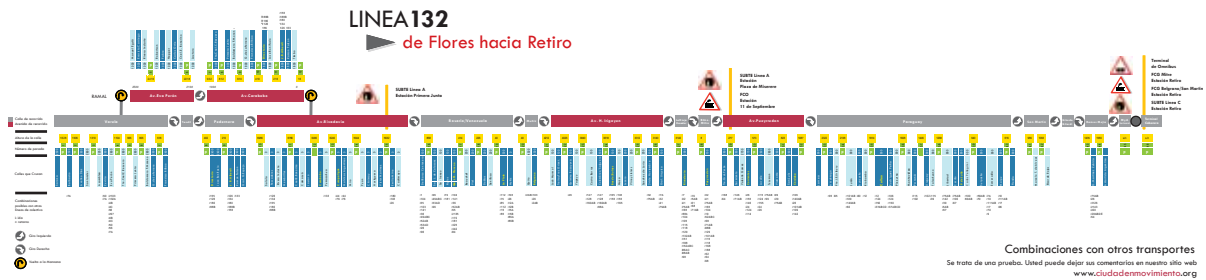


such as González Ruiz and Ronald Shakespear. With experimentation, the concept and the design have been getting simpler. The National Commission for Transport Regulation (CNRT) considered the experience positive and urged that it be developed for other lines as well. Among those considered, and chosen for its quality of service, was line 12, “Transportes Automotores Callao.”

The welcome invitation of the Centro Metropolitano de Diseño (CMD) for the Buenos Aires International Design Festival, and of course the firm’s acceptance, led it to the culminating point of our initial proposal. What better place to present an innovative design concept for quality information for the bus network than the coach of a line that unites two neighborhoods largely devoted to innovative design, today’s Palermo and tomorrow’s Barracas / Parque Patricios?

## THE NEW ACTORS IN URBAN INFORMATION

In the framework of the Legible City Project for Buenos Aires, concrete actions have already been undertaken for bus-lines 132, 12 and 34, the intermodal center of Constitución, and they are currently working on the subway system of Buenos Aires.



The protocol being developed is open and may be used by anyone who considers it useful, since it has no commercial register whatsoever, and has as its sole license that of Creative Commons.

## HOW CAN URBAN INFORMATION ABOUT THE PUBLIC TRANSPORTATION NETWORKS BE USEFUL FOR OVERALL UNDERSTANDING OF THE CITY?

Today many cities continue to lack an integrated information system, in part because there exists no integrated network for it. While on the one hand the projects are not geared toward the populations who have specific needs, as was the

case in Paris with the transportation atlas for the visually impaired; on the other hand, this information is also not available for the public at large, especially in Latin America.

In many cities of our region there exists no general legible city map for the transportation system. This lack is the result of the absence of a network per se. In fact, various networks for buses, subways and trains in outlying areas overlap because they were never jointly conceived. Consequently, the development of quality information geared to exceptional users constitutes a concrete challenge, the importance of which should not be underestimated.

## THE CASE OF TRES DE FEBRERO

The project is reaching the district of Tres de Febrero with the support of the Peugeot Foundation, through an agreement with the local municipality. The main goal of the project is to improve the experience of getting around for those who are traveling about and performing their activities in the urban centers. It is a matter of developing actions that improve the quality of information for the public transportation network so that the users may decide—even during their trip—on possible alternatives for reaching their destination.





The premise that underlies the project is that by better understanding the system one can use it better, and using it better forces us to continue to perfect it.

Beginning this month, a team of designers, pollsters and researchers from the Institute pour la ville en mouvement is starting to gather and process information related to transportation, ways of getting around, public space, landmarks and points of reference (historical, cultural and service-related) for the entire area surrounding the Caseros station of the San Martín train lines, in the township of Tres de Febrero. In question are subsidies for working out a new information system of options of getting around for residents and other transport users in the region.

The IVM foresees intervening in the Caseros train station, through modifying its signage, implementing a representation system that can improve legibility for users. This experiment takes its place among those already developed for the lines of buses 132, 12 and 34 and for Constitución Station, as intermodal transfer centers, as well as for the B line of the Buenos Aires subway.

In this way, Ciudad Legible [Readable City] is continuing to collect material, data and information of relevance, in order to come up with tools and protocols that can be implemented in the systems of representation and information in a number of locations.



## INTERDISCIPLINARY FOCUS

For this reason, then, a multidisciplinary focus –with competent professionals in the areas of design, communication, anthropology and geography– the application of information tools and geographic information systems, the sophistication of mobile phoning, and the possibilities of electronic information in public access screens are of essential interest for the development of a project of high impact and minimal cost.

The contrast between the information which, in some cases, is made available for automobile users and, to a lesser degree, subway riders, and the offering for bus passengers seems to leave much to be desired if we're speaking of promoting public transportation.

**Andrés Borthagaray**



# THE ACTIONS OF THE FOR A LEGIBLE CITY

## MOBILITY IN FORMATION / A RESEARCH AND IN THE FORMATION OF MOBILITY

### WHAT ARE THE DIMENSIONS OF “KNOWING HOW TO BE MOBILE”? WHAT LESSONS CAN WE LEARN FROM THE COURSES IN MOBILITY CURRENTLY OFFERED?

To read a map and a plan for networks, to ask for directions, to use machines for buying tickets, to know how to combine transport media for traveling, to want to discover unknown parts of the city, for a clear representation of the city and more: Getting around is something one learns.

Mobility is a particular form of knowledge:

-It is a comprehensive, a global, form of knowledge, which integrates all the activities of daily life, and it is deeply rooted in different cultures

-It is an invisible form of knowledge: we don't know what we know, we don't know what we don't know, and we don't know what you should know

-It is an informal form of knowledge, hard to separate into specific fields: cognitive, cultural, social, affective...

-Finally, it is a diffuse form of knowledge, hard to classify into levels of knowledge and applicability.

One has to learn mobility since the cities have turned illegible. All metropolitan areas are growing and spreading. As they grow, the cities

may offer their inhabitants better resources; however, for those who live far away from them, who cannot gain access to them out of an inability to mobilize, the social, economic and cultural barriers only grow more complicated.

Those city residents, therefore, who have some difficulty –meager resources, for instance– or who are immigrants without command of the local language or are illiterate, find reduced their chances to gain access to all the resources that the cities offer. To learn how to get around also affects young developing students who need such mobility for their autonomy, young people and professional adults in training, or, for example, tourists.

### THE IVM'S ACTIONS FOR A LEGIBLE CITY IN FRANCE

#### A DIGITAL TRAINING TOOL FOR THE CODES OF SPACE AND URBAN MOVEMENT

In association with the Metropolitan Agency of Lyon (Grand Lyon), The Uni-Est Association, and with financing from the PSA Peugeot Citroën Foundation, the IVM is launching a hybrid educational game, for people in the process of social and professional inclusion, to develop their mobility.

# IVM INTERNATIONAL

## EXPERIMENT PROJECT

Over the course of surveys and field work, the IVM has made clear that, like language, mobility depends on learning. In a world that is urbanizing, education in the legibility of the city and mobility is as important as education for health, lasting development or civic issues.

Thus, people face challenges peculiar to each of them: they must reflect on their particular practices and movements, as well as understand the more global problems related to them.

Today, however, there exists no training tool that meets the overall need for education about the city. Without claiming to achieve the status of a prototype, the multimedia support leads us to go farther in the logics of mobilization of competencies, interactivity and immersion for the individuals thus trained. The format of a multimedia educational game is a response to this ambition.

The IVM is undertaking an applied investigation of conception and production of this digital tool for training in mobility which should be shareable, technically stable, and able to meet the needs of multiple operators: local governments, trainers and students, tourism professionals, etc. This product will integrate the most advanced bodies of knowledge into the area of training.

The process initiated has three parts:

- Development of a program of five seminars that allows association in it of numerous actors, professionals and investigators in devising an information tool.

In effect, to achieve it, one must take up, on the one hand, the dynamics (cognitive, affective, etc.) that emerge whenever we play to learn, and on the other hand, we must know the practical competences needed for our getting around in the city.

- An international colloquium on the education challenges for urban space and for travel through the city (end of 2014 / beginning of 2015)

- Presentation of an information medium (2016).



# WHO DOES WHAT?

## INSTITUTE POUR LA VILLE EN MOVEMENT / PSA PEUGEOT CITROËN

With its headquarters in Paris, it has opened offices in China and Latin America.

Launched by PSA Peugeot Citroën in June of 2000, the Institute for the city in motion wishes to contribute to the problem solving for urban movement and mobilities.

It associates representatives from the business world with researchers and academics, yet also actors from cultural and civic life, as well as cities, around investigation-actions and jointly implemented projects. It has stated its commitment to working out concrete solutions, allowing for international comparisons to be made; to working out an inventory of more original city-planning and architectural approaches; to mobilizing experts and people with multi-disciplinary skills in Asia, America and Europe; to circulating knowledge and sensitive opinion about the challenge represented by forms of

mobility for contemporary societies. The Institute pour la ville en movement has ten years of involvement in investigation and actions in the area of movement for inclusion. In France it was, in particular, given the task of encouraging the functioning of a platform of innovations in cooperation with various structures of social insertion, in Dunkerque (with the Afeji), in Nancy (CIDF), in Saint-Nazaire (the federation of neighborhood housing), in Royan (local mission) and in Cahors (the association AIL 46). In 2008, the IVM, together with the team of Martin Hirsch and Grand Lyon, organized the conference Inclusive Grenelle, dedicated to the theme of mobility.

**UN HABITAT**  
FOR A BETTER URBAN FUTURE



**WORLD  
URBAN  
CAMPAIGN**

## IN LATIN AMERICA

IVM Latin America has two offices that work and develop specific actions throughout the continent.

### PROJECT TEAM

- Andrés Borthagaray, Director of the IVM Latin America, coordinator of the project “Information and Design” for a Legible City.
- Sebastián Anapolsky, Assistant, IVM Latin America.
- Horacio Aiello, Project chief, Legible City in Buenos Aires.
- Carla Laguzzi, Project assistant, IVM Latin America.
- Joaquim Redig, Project chief, Legible City in Brazil.

### BUENOS AIRES

<http://www.ciudadenmovimiento.org/>

### SÃO PAULO

<http://www.ciudadenmovimiento.org/pt-br/>

### ASSOCIATES

- City of Buenos Aires: Government authorities, Paula Bisiau: Director General of Sustainable Mobility
- Estudio GARIBALDI
- Entreprises 3M
- De Marinis
- National Commission for Transportation in Argentina
- National Association for Public Transportation of Brazil; the City of Porto Alegre.

## IN FRANCE

[www.ville-en-mouvement.com](http://www.ville-en-mouvement.com)

### PROJECT TEAM

- Eric Le Breton, Scientific director of the program IVM The Legible City, sociologist and professor, University of Rennes 2
- Gaëlle Rony, IVM Project Head, sociologist [gaelle.rony@vilmouv.com](mailto:gaelle.rony@vilmouv.com)

- Grand Lyon, Alan Blum, director of the project “Development of Economies of Solidarity”
- Uni-Est, Claire Le Franc, director of the mobility project Uni-Est
- Mireille Apel- Muller, General Delegate, IVM.

### ASSOCIATES

- PSA/Peugeot Citroën Foundation, “a world in motion.” The foundation’s mission is to support the projects of associations, non-governmental agencies and employees of PSA who promote sustainable mobility, responsibility and solidarity. The PSA association is a partner of the Uni-Est association for activities in support of mobility. <http://www.fondation-psa-peugeot-citroen.org/fr/>
- Asociación Uni-Est, <http://www.uni-est.org/>
- Le Grand Lyon, <http://www.grandlyon.com/>