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Discipline Sciences humaines - Architecture

HABILITATION À DIRIGER DES RECHERCHES

Le quotidien en projets Parcours, coupes, travellings et autres transects

Volume 2

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Centre de recherche sur l'espace sonore et l'environnement urbain
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HABILITATION À DIRIGER DES RECHERCHES

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**Liste des publications et des travaux
suivie d'une
sélection d'articles (1998-2016)**

Le CRESSON (centre de recherche sur l'espace sonore et l'environnement urbain) est une équipe de recherche architecturale et urbaine, fondée en 1979, à l'École Nationale Supérieure d'Architecture de Grenoble. À l'origine centré sur l'espace sonore, le CRESSON a fondé sa culture de recherche sur une approche sensible et située des espaces habités. Ces recherches s'appuient sur des méthodes pluridisciplinaires originales, à la croisée de l'architecture, des sciences humaines et sociales et des sciences pour l'ingénieur. À travers ses travaux, le CRESSON met en œuvre des expérimentations qui interrogent les processus de conception architecturale et urbaine à toutes ses échelles (dispositif, architecture, espace urbain, paysage, territoire). À partir des années 90, tout en poursuivant les travaux sur la dimension sonore, ses investigations s'élargissent aux multiples dimensions de la perception *in situ* de l'expérience urbaine. Sont ainsi abordés les phénomènes lumineux, sonores, thermiques, olfactifs, tactiles et kinesthésiques, et leurs rapports aux pratiques ordinaires et professionnelles, posant alors les bases de la recherche sur les ambiances architecturales & urbaines. Dans la continuité de ces préoccupations, les travaux du CRESSON questionnent aujourd'hui les enjeux sociaux, écologiques, esthétiques, numériques et politiques des ambiances.

Le CRESSON est une des équipes du laboratoire *Ambiances, Architectures, Urbanités* (AAU) qui est une Unité Mixte de Recherche du CNRS associant les Écoles Nationales Supérieures d'Architecture de Grenoble et de Nantes et l'École Centrale de Nantes. Depuis sa création, le laboratoire AAU se développe de manière fortement interdisciplinaire, tant par sa composition (architectes, sociologues, informaticiens, anthropologues, urbanistes, géographes, physiciens, historiens, philosophes), que par les problématiques et enjeux auxquels il répond (architecture, environnement, ville), et par les outils qu'il conçoit et met en œuvre (méthodologies d'enquêtes *in situ*, modélisation et simulation des phénomènes d'ambiances, réalité virtuelle, etc.).

Le CRESSON est membre du Réseau International Ambiances.



Table longue – Action Marcher Angers Penser – AURA – 2015
Retour de marches, contribution collective sur table longue suivi d'un débat
<http://www.bazarurbain.com/464/marcher-angers-penser>
Pascal Amphoux & Nicolas Tixier

Ce manuscrit, en deux volumes, vise à retracer et mettre en perspective 20 années de recherches et de projets, depuis mon DEA (1997), mon doctorat (2001), jusqu'à aujourd'hui (2017). Les travaux présentés et discutés dans cette habilitation se sont fortement développés autour des enjeux de transformation de l'environnement urbain en général, et sur le projet urbain et d'espace public en particulier. De par les approches et les partis pris qu'ils mobilisent, ils s'inscrivent plus précisément dans le domaine des ambiances architecturales et urbaines. Ils ont comme problématique commune *le quotidien en projets* et comme hypothèse méthodologique *le transect, comme pratique de terrain, technique de représentation et posture de projet*.

Architecte, professeur de théorie et de projet à l'École Nationale Supérieure d'Architecture de Grenoble, mes recherches se font au sein du CRESSON (Centre de Recherche sur l'Espace Sonore et l'Environnement Urbain) équipe du laboratoire *Ambiances, architectures, urbanités* UMR CNRS/ECN/ENSAG/ENSAN n°1563.

Cette Habilitation à Diriger des Recherches se fait à l'Université Grenoble Alpes dans le cadre de l'École Doctorale 454 *Sciences de l'homme, du politique et du territoire*, discipline *Sciences humaines – Aménagement*. Les doctorants de l'École Nationale Supérieure d'Architecture de Grenoble que je serais amené à encadrer s'inscriront dans cette école doctorale pour obtenir le grade de docteur en architecture.

Cette Habilitation à Diriger des Recherches a bénéficié de l'accompagnement de Jean-Paul Thibaud (DR CNRS). Je voudrais le remercier vivement pour son regard ainsi que pour nos échanges, nombreux, sur ma production.

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Sélection d'articles (1998-2016)

Nicolas Tixier, **Parcours de lecture de la place Sainte-Claire**, in Vincent Lucci (dir.). *Des écrits dans la ville. Sociolinguistique d'écrits urbains : l'exemple de Grenoble*, Éditions L'Harmattan, Paris, 1998. pp. 267-301.

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Daniel Beysens, Filippo Broggini, Iryna Milimouk-Melnitchouk, Jalil Ouazzani, Nicolas Tixier, **Dew architectures – Dew announces the good weather**, in *conférence internationale mc2012 "Matérialités Contemporaines"*, Les grands ateliers, Villefontaine, Actes du colloque, novembre 2012, pages 282-290.

Adrián Torres Astaburuaga, Éva Chaudier, Nicolas Tixier, **Mémoire du futur, from old roots to new shoots. Patrick Geddes in India (1914-1924)**, in *Espaces et sociétés*, Dossier « Revisiter Patrick Geddes », n°167, 2016.

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PUBLICATIONS ET TRAVAUX

1. CURRICULUM VITÆ

1.1. Résumé

Nicolas Tixier est architecte DPLG et docteur en sciences pour l'ingénieur (2001). Professeur à l'École Nationale Supérieure d'Architecture de Grenoble (en Théories et Pratiques de la Conception Architecturale et Urbaine), il enseigne aussi à l'École Supérieure d'Art Annecy Alpes et à l'Institut d'Urbanisme de Grenoble. Chercheur au CRESSON (UMR Ambiances, Architectures, Urbanités n°1563). Il mène parallèlement une activité de projet au sein du collectif BazarUrbain (lauréat du palmarès des jeunes urbanistes 2007). De 2003 à 2010, il a été chargé de mission scientifique au Bureau de la recherche architecturale, urbaine et paysagère au Ministère de la Culture et de la Communication. Depuis 2009, il est président de la Cinémathèque de Grenoble. Ses travaux actuels portent principalement sur le transect urbain, comme pratique de terrain, technique de représentation et posture de projet.

1.2. Adresses

Institutionnelle

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<https://cv.archives-ouvertes.fr/nicolas-tixier>

1.3. Parcours

1966	Naissance à Lyon
1991	DEUG en mathématiques et physique appliquée
1996	Diplômé en architecture à Grenoble (TPFE)
1997	DEA Ambiances architecturales et urbaines
1997	Lauréat <i>Projet émergeant</i> , bourse de doctorat Région Rhône-Alpes
2000-...	Membre fondateur du collectif BazarUrbain – pratique du projet urbain
2001	Doctorat en sciences pour l'ingénieur - option architecture
2001-...	Chercheur au CRESSON – UMR Ambiances, architectures, urbanités n°1563
2002-15	Maître-assistant à l'École Nationale Supérieure d'architecture de Grenoble en Sciences et Techniques pour l'Architecture (STA)
2003-10	Chargé de mission scientifique au Bureau de la recherche architecturale, urbaine et paysagère – Direction Générale des Patrimoines – Ministère de la Culture et de la Communication
2006-09	Membre du Comité Scientifique Opérationnel pour l'organisation de la consultation internationale « Le grand pari de l'agglomération parisienne » (BRAUP/MCC)
2007	Lauréat du <i>Palmarès des Jeunes Urbanistes</i> (Ministère de l'Écologie, du Développement et de l'Aménagement durables)
2009	Lauréat de la <i>Grants for Research in Architecture Awarded – Rafael Viñoly Architect</i> – New York (Bogotá Project)
2009-...	Président de la Cinémathèque de Grenoble et du Festival du film court en plein air de Grenoble
2011-...	Enseignant à l'École Nationale Supérieure d'Art Annecy Alpes Master <i>Design & espace</i> – Membre associé de l'Unité de recherche de l'ESAAA et du Laboratoire des Intuitions
2015-...	Professeur à l'École Nationale Supérieure d'architecture de Grenoble en Théories et Pratiques de la Conception Architecturale et Urbaine (TPCAU)
2016	Codirection du 3 ^e <i>Congrès International sur les Ambiances</i> – Volos, Grèce
2016-...	Codirection du Master <i>Design Urbain</i> (IUG / ENSAG / ESAAA / UNIL / HEPIA)

2. PUBLICATIONS & COMMUNICATIONS

2.1. Publications et écrits

Direction d'ouvrage – Éditions scientifiques

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Nicolas Tixier, Annie Luciani, **Décrire/Modéliser les conduites de cheminement. Du rôle des ambiances à l'hypothèse du modèle physique**, in *SCAN 09 : Séminaire de Conception Architecturale Numérique*, Nancy, 14-15 mai 2009 – Presses universitaires de Nancy (2009), 10 pp. [Article synthétique reprenant la communication en anglais de Copenhague 2008].

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Caterina Tiazzoldi, Nicolas Tixier, **Formal Modulation for Acoustic Performances of a Bridge**, in *Design, in International Conference EAAE / ARCC 2008 : Changes of paradigms in the basic*

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Nicolas Tixier, **L'ordinaire du regard, le récit du lieu et le projet urbain**, in *L'implication des acteurs dans les processus de conception de l'espace public* Journée d'étude dans le cadre du cycle « Mais qu'est-ce donc qu'un espace public ? », ENSA Nantes, 11 janvier 2010.

Nicolas Tixier, **Croisement d'enjeux environnementaux et d'enjeux locaux pour le développement de méthodes participatives en milieu urbain**, in *Comment la participation citoyenne peut-elle induire de véritables projets d'urbanisme durable ?*, Rhônalpénergie-Environnement, Lyon, 19 novembre 2009.

Nicolas Tixier, **Ecouter, repérer, nommer. Lectures urbaines des espaces sonores**, conférence invitée in *VI encontro Internacional Saber Urbano e Linguagem : As Políticas do "consenso"*, Campinas, Brésil, 5 novembre 2009.

Nicolas Tixier, Camilo Cifuentes, **Bogotá, a case study – first results and controversy**. Séminaire dans le cadre Rafael Vinoly Architect Research Projects, New York, 15-16 juin 2009.

Nicolas Tixier, **Décrire l'espace sonore, la traversée urbaine**, in *Séminaire Textures Audio et Ambiances Sonores Dans l'espace architectural et urbain*, ENAU, Tunis, 11-12 juin 2009.

Nicolas Tixier, **Villes audibles : écouter l'urbain**, in *Séminaire LAA/EHESS : Matières urbaines. Bricolage méthodologique*, Paris, 104 rue d'Aubervilliers, 28 mai 2009.

Nicolas Tixier, **Paroles données, paroles rendues – la Place de la République en marches**, in *Journée thématique Politiques du sensible et langages de la ville* sous la direction d'Henri-Pierre Jeudy et de Nicolas Tixier, Réseau International Ambiances, Paris, Bibliothèque Richelieu, 5 mai 2009.

Nicolas Tixier, **Récits du lieu : la fabrique de la ville à l'épreuve des usages, Narrativas do lugar : a fábrica da cidade à prova dos usos**, conférence-table ronde, in « *I Fórum de Políticas Públicas Urbanas – a desconstrução do espaço: do olhar e do discurso à metamorfose* », « Forum des

Politiques Publiques Urbaines - la déconstruction de l'espace : du regard et du discours à la métamorphose », São Carlos, Brésil, 30 octobre 2008.

Nicolas Tixier, **L'ambiance est dans l'air. La dimension atmosphérique des ambiances architecturales et urbaines dans les approches environnementalistes.** Conférence invitée dans le cadre du séminaire « La contribution des ambiances urbaines dans l'élaboration de Politiques Publiques », CETESB, São Paulo, Brésil, 25 août 2008.

Nicolas Tixier, **O uso das ambiências : implicação de metodologias de pesquisa no projeto arquitetônico e urbano. L'usage des ambiances. L'implication des méthodologies de recherche dans le projet architectural et urbain,** conférence invitée, FAU / UFRJ, Rio de Janeiro, Brésil, 21 août 2008.

Nicolas Tixier, Gilles Debizet, **Rafraîchir la ville. Comment adapter les espaces urbains aux vagues de chaleur ?** in *Conférence d'ouverture du Forum du Plan Climat*, organisée par l'Agence d'Urbanisme de la Région Grenobloise, Metro, Grenoble, 4 juin 2008.

Nicolas Tixier, **Paroles données, paroles rendues.** In *Rencontres nationales des pratiques socioculturelles de l'architecture*, « Construire quoi, comment ? ». Friche Belle de Mai, Marseille, 18 octobre 2007.

Nicolas Tixier, **Considérations sur le doctorat en architecture. 16 entretiens auprès de titulaires du Grand Prix national de l'architecture ou du Grand Prix de l'urbanisme.** In *Séminaire « Formes et pratiques de l'activité de recherche »*, École Nationale Supérieure d'Architecture de Nantes, « Lieux communs », les cahiers du LAUA, 10 octobre 2007.

Nicolas Tixier, **Du renouvellement urbain d'un quartier ANRU (Hem, 59) à la récupération de la rosée**, in *La ville durable sera-t-elle dense ?, Journée d'étude « Quartiers durables, architectures économies »*, École Nationale Supérieure d'Architecture de la Ville et des Territoires, Marne-la-Vallée, 21 juin 2007. Conférence éditée en DVD.

Nicolas Tixier, **Contribution aux ateliers sur la recherche en design. La recherche architecturale, urbaine et paysagère, Situation institutionnelle, enjeux du doctorat, exemples de travaux**, in *Les ateliers de la recherche en design*, Nîmes 13-14 novembre 2006.

Pascal Amphoux, Gilles Debizet, Jean-Jacques Delétré, Valérie Lebois, Nicolas Tixier, **Le confort dans l'habitat, une notion évolutive**, organisation et intervention, Table ronde dans le cadre de *la biennale de l'habitat durable à Grenoble*, à la Plateforme, Grenoble, 22 mars 2006.

Jean-François Augoyard, Nicolas Tixier, Paris, **L'esthétique ordinaire de la ville**, In *Séminaire IPRAUS « Architectures et Sociétés : Raison spatiale, Logique sociale »*, Paris, École Nationale d'Architecture de Paris Belleville, 18 janvier 2006.

Nicolas Tixier, **Acoustic performance tables, qualitative and quantitative for responsive devices tools**, in *NLSA Applied responsive device – performance of a bridge*, Colombia, New York, 1 novembre 2005. Abstract in « Columbia University - Graduate School of Architecture - Planning and Preservation - Abstract 05/06 », Page 014 – Visual Studies.

Nicolas Tixier, **Sur quels attributs l'architecture du XXe siècle peut-elle s'appuyer ?, in Quels seront les attributs de l'architecture du XXIe siècle en Rhône-Alpes ?, in Cycle de conférence : Points de vues – Architecture du XXe siècle en Rhône-Alpes**, Grenoble, Éd. CAUE - Isère, Texte et illustration en version PDF sur le Cdrom joint à la plaquette imprimée, 6 juillet 2005.

Nicolas Tixier, **Notions de confort & stratégies thermiques pour la conception d'un habitat**, in *La fête de la science, soirée sur le thème des énergies renouvelables*, Grenoble, CRDP, 11 octobre 2004.

Nicolas Tixier & coll. BazarUrbain, **Au risque de l'espace public**, in *Festival International de la Ville de Créteil*, 20, 21, 22 septembre 2002.

Nicolas Tixier, **Une approche sensible de l'espace public**, in *Formation sur l'espace public*, Paris, Ministère de l'équipement des Transports et du Logement, CIFP, 4 juin 2002.

Annie Luciani, Nicolas Tixier, **Mimesis - Images numériques animées**, in *Rencontres internationales de la création artistique 2001*, Grenoble, École d'Art, 14 novembre 2001.

Nicolas Tixier, **Récrire l'espace : un acte expert, une action ordinaire**, in *Séminaire Récrire avec la textique*, Cerisy-la-Salle, août 2001.

Pascal Amphoux, Nicolas Tixier, **Quand la contrainte devient projet**, in *Rencontre Oulipiens - Architectes : Ouarchipo*, Institut Français d'Architecture, Paris, 1,2,3 juin 2001.

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Nicolas Tixier [organisation, présentation, débat], Philippe Potié [débat], **Regards sur l'architecture moderne**, in *Lundi d'archi hors les murs à la cinémathèque*, Grenoble, 14 décembre 1998.

Dans le cadre de manifestations cinématographiques

Nicolas Tixier, **Traversées urbaines saison 5 – à propos du film « Études sur Paris » d'André Sauvage**, Valence, le Lux – Scène nationale, Manifestation *Viva Patrimoine*, janvier 2015.

Nicolas Tixier, **Habiter n'est pas loger**, Privas, ciné-conférence, dans le cadre des 35 ans du CAUE de l'Ardèche, 12 juin 2104.

Nicolas Tixier, **Traversées urbaines – L'observation du quotidien à propos du film « Smoke » de Wayne Wang et Paul Auster**, Chambéry, Maison de l'architecture de Savoie, 4 avril 2013.

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Nicolas Tixier, **L'espace des séries TV. Camps, trajectoires, connexions**, in *séminaire Ville et cinéma*, ENSA Toulouse, 10 mars 2008.

Annie Luciani, Nicolas Tixier, **De l'image par image, à l'image dynamique**, Organisation et débat autour d'une sélection de films sur le mouvement, Cinémathèque de Grenoble, 21 avril 2006.

Nicolas Tixier, **La captation du monde**, in *Conférence-débat sur Les ailes du désir de Wim Wenders*, Mon Ciné – Saint Martin d'Hères, 30 novembre 2004.

Tu Du Chi, Nicolas Tixier, **L'architecture du son au cinéma**, in *Conférence débat suite au film « Happy together » de Wong Kar Waï dans le cycle « Un autre regard sur l'architecture »*, Festival des trois continents, Maison de l'architecture des Pays de la Loire, Nantes, 25 novembre 2004.

Nicolas Tixier, Steven Melemis, **Gestes, mouvements, architecture**, Organisation et débats autour d'une sélection de films, Cinémathèque de Grenoble, 19 mars 2003.

Nicolas Tixier, **Tour au large, images et imaginaires d'une disparition**, in *Colloque Qui êtes-vous Monsieur Grémillon ?*, Moulin d'Andé, Centre des écritures cinématographiques, 12, 13, 14 octobre 2001.

Nicolas Tixier, **Jacques Feyder. Cinéaste international**, Cinémathèque de Grenoble, 10 décembre 1998.

Nicolas Tixier, **Jean Grémillon. Les films que l'on ne verra plus**, Cinémathèque de Grenoble, 16 avril 1998.

3. ACTIVITÉS DE RECHERCHE

3.1. Direction de recherche sur contrat

Didier Tallagrand, Jean-Paul Thibaud, Nicolas Tixier (dir.), **Désigner l'ambiance / Designer l'ambiance**, Recherche Ministère de la Culture, Direction générale de la création artistique, Unité de recherche - ESAAA & CRESSON - ENSAG, 2017-2019 (projet en cours).

Nicolas Tixier (dir.), Sylvain Angiboust, Xavier Dousson, Steven Melemis, **Retour vers le futur : Études sur Paris, un film d'André Sauvage (1928)**. Programme de recherche-action « La grande ville 24 heures chrono », MCC / CAPA / AiGP, 2012-2013. Éditions dans le cadre des *Cahiers de la Recherche architecturale et urbaine*, (2014).

Nicolas Tixier (dir. France), Olfa Meziou (dir. Tunisie), **Perceptions altérées des ambiances sonores en milieu urbain. Caractérisation et corrections : apport des textures audio**. Projet de recherche dans le cadre du programme Hubert Curien Utique 2010, CMU, reconduction du programme en 2011 et en 2012.

Nicolas Tixier (dir.) et alii, **Bogotá: a case study on new development strategies for contemporary metropolis**. Contrat de recherche Grants for Research in Architecture, Rafael Viñoly Architects. 2009-2010. 251 p. + 3 DVD (vidéo, audio, multimédia transect). 2011 – Edition finale **The Recuperation of Public Space: A Closer Look at Bogotá, Colombia**, in Ned Kaufman (Éd.) *Pressures and Distortions: City Dwellers as Builders and Critics. Four Views*, Éd. Rafael Viñoly Architects PC, New York, Déc. 2011, pp. 338-433. + Cdrom Audio et vidéo.

Nicolas Tixier (dir.) et alii, **L'ambiance est dans l'air. La dimension atmosphérique des ambiances architecturales et urbaines dans les approches environnementalistes**. Contrat de recherche PIR Ville et Environnement – CNRS – PUCA, 2008-2009. En collaboration avec des chercheurs de l'UMR CNRS n°5194 « PACTE », et le Département de santé publique de l'Université de São Paulo. En partenariat avec le service urbanisme de la Ville de Grenoble et l'Agence de protection environnementale de São Paulo (CETESB). Recherche (2008-2010). Recherche incluant l'organisation de séminaire-ateliers : Grenoble (29 avril 2009), São Paulo (1er juillet 2009), Grenoble (décembre 2009), Rapport de recherche CRESSON, 250 pages + annexes numériques, janvier 2012.

Nicolas Tixier (dir. pour la partie française) et alii., **Progetto ARCH/ART – Progetto di spazi sensoriali in contesti territoriali, il suono, la forma, la materia, il colore, la luce nel reale e nel virtuale**, Projet de recherche-action européen (Projet Leonardo Cultura 2000) mettant en collaboration pendant 2 ans Le Polytechnico de Turin, la Faculté Polytechnique de Mons, l'écomusée de la Communauté Le Creusot - Montceau-les-Mines, Le CRESSON, l'ACROE. Projet articulant recherche scientifique et expérimentation projectuelle en trois temps associés à trois lieux : Bardonecchia, Le Creusot, Mons. Rapport de recherche. 2003-2005.

3.2. Contribution à des recherches sur contrat

Nouredine Hadj-Said (coordinateur, laboratoire G2ELAB), Nicolas Tixier (resp. CRESSON laboratoire associé au projet) et Sylvie Laroche, **Eco-SESA – Eco-district: Safe, Efficient, Sustainable and Accessible energy**, Projet IDEX Cross Disciplinary Program regroupant 16 laboratoires, ComUE (Communauté Université Grenoble Alpes), 2017-2018.

Jean-Paul Thibaud (dir.), Nicolas Tixier, et alii, **Ambiances du Risque. Enquête sur l'expérience diffuse des risques de contamination à Barão de Mauá au Brésil** (AMBIRISQUE), Recherche PEPS, collaboration CETESB – São Paulo, CNRS, 1 an, 2015-16.

Naïm Aït Sidhoum (dir.), Nicolas Tixier, et alii, **Bangalore : pour l'invention d'un tiers patrimoine**, programme de recherche « Pratiques interculturelles dans les processus de patrimonialisation », Ministère de la Culture et de la Communication, collaboration Ecole Supérieure d'Art Annecy Alpes (dir.), Srishti School of Design - Bangalore, CRESSON – ENSAG, 2014-2016.

Frédéric Pousin (dir.), Nicolas Tixier, et alii, **D-TRANSECT. Les Délaissés des TRAversées de la Vallée de l'Huveaune : dispersion des Espèces, pratiques vernaCulaires, médiations paysagères**. Programme de recherche ITTECOP, Ministère de l'environnement, collaboration LAREP, CRESSON, LPED, COLOCO, BazarUrbain, 2012-2014, Rapport de recherche 152 p. + vidéo + transects accessibles sur <http://dtransect.jeb-project.net>, janvier 2015.

Rachel Thomas (sous la dir. de) et alii, Damien Masson, Nicolas Tixier, Laure Brayer et alii (contribution à l'axe 3). **Les énigmes sensibles des mobilités urbaines contemporaines**. Programme de recherche ANR *Espace et Territoires*, édition 2010, décision ANR_10_ESVS_013_01, CRESSON, 2010-2014. Rapport final 2014, 352 p. (<https://anr-muse.fr>).

Jacques Lolive (dir.), Anne Tricot (coord.) et alii., Jean-Paul Thibaud, Rachel Thomas, Nicolas Tixier collaboration (collaboration CRESSON), **Capacités d'adaptation des sociétés littorales aux phénomènes d'érosion. Submersion des côtes en prise avec les changements climatiques**, Programme « gestion et impact du changement climatique » du Ministère de l'Énergie, de l'énergie, du développement durable et de l'aménagement du territoire (GICC-2 2008), PACTE, GEOMER, CRESSON, Univ. Paris Descartes, GSPM, 2009-2011. Rapport final, 2012, 295 p.

Gilles Fraisse (dir.), Nicolas Tixier (resp. partenariat CRESSON). **Production d'Eau chaude Solaire adaptée à la Rénovation énergétique grâce à une approche innovante de l'intégration du stockage au capteur / Design of solar hot water systems for Energy Renovation with Innovative Integrated Collector Storage**. Acronyme : RénEauSol. Projet ANR – Programme Habitat intelligent et solaire photovoltaïque. LOCIE, CETHIL, CTB, CEA, INES, CRESSON. Durée : 36 mois. 2009-2013.

Nicolas Tixier, Béatrice Moutet (pour la partie CRESSON associée au laboratoire ICA (Informatique et Création Artistique)), **Étude des dynamiques piétonnières à partir du modèle physique de l'ACROE – expérimentations, représentations**, in *Projet DEREVE II*, Appel d'offres Région Rhône-Alpes « Réalités virtuelles » sous la direction de Samir Akkouch (CNRS-INRIA) Projet regroupant de nombreux partenaires en modélisation numérique : ICA, iMAGIS, LIGIM, ARIA, ERGA, 2003-2006.

Eric Henry, Martin Symes, Gilles Debizet, Nicolas Tixier, et al., **Nouvelles expertises en construction durable - Émergence, coopération et intégration dans la conception**, équipe Franco-Britannique [Laboratoire Cristo, Université de Bristol, Laboratoire CRESSON], recherche

PUCA Activités d'experts et coopérations interprofessionnelles. 2006. (participation initiale puis transmission à Magali Paris, doctorante).

Marie-Christine Couic, Jean-Michel Roux, Catherine Aventin, Suzel Balez, Nicolas Tixier, et al., **A l'entour du cémitière, étude des potentiels pour un aménagement urbain**, Ville de Saint-Étienne, Service Culture et Patrimoine, fond FEDER, 2002.

Nicolas Tixier et alii, Participation comme enquêteur au travail dirigé par Jean-Paul Thibaud, **Vers une hospitalité des espaces publics**, Recherche CRESSON, 2000-2001.

Julien Mac Oisans, Nicolas Tixier, Participation au projet dirigé par Helmi Järvinluoma [Université de Turku, Finlande], **Acoustic environments in change - Village de Lesconil**, avril-mai 2000, Cédérom + CD Audio.

Nicolas Tixier et alii, Participation comme enquêteur au travail dirigé par Henry Torgue, **Réalisation de l'étude sociologique sur l'évaluation et le suivi de la redynamisation de la ligne de bus 1 (RN 75)** pour le Syndicat Mixte des Transports en Commun de l'agglomération de Grenoble en collaboration avec l'Agence d'Urbanisme de la Région Grenobloise, 1999-2000.

Nicolas Boyer, Nicolas Tixier, **Enquête par immersion interactive sur les procédures de maîtrise des ambiances sonores dans le projet architectural**, sous la direction de Jean-François Augoyard, CRESSON, subvention de recherche DGAD/SRAE/95288, 187 p. + Cd-Rom, juillet 1999.

Nicolas Boyer, Nicolas Tixier, **Qualification des sources sonores urbaines. Enquêtes de terrain**, sous la direction de Jean-François Augoyard, CRESSON, in Rapport PIR-VILLES : *Vers un logiciel prédictif des ambiances sonores urbaines*, 38 p., 1999.

Jean-Paul Thibaud (dir.), Pascal Amphoux, Annie Luciani, Nicolas Tixier, **Effets sensibles en milieu urbain. Analyse *in situ* et simulation numérique**, rapport ARASSH à 1 an, CRESSON - ACROE - Irec, Région Rhône-Alpes, 1998.

Nicolas Tixier, Chantal Blanc-Keller, **États des lieux et mouvances. Enquête bibliographique**, in *La notion d'ambiance. Une mutation de la pensée urbaine et de la pratique architecturale*, sous la direction de Pascal Amphoux, Rapport de recherche n°140, IREC-EPFL, Lausanne, mars 1998, pp. 121-175.

3.3. Organisation de rencontres ou de manifestations scientifiques

Didier Tallagrand, Jean-Paul Thibaud, Nicolas Tixier (dir.), **L'usage des ambiances**, colloque international, ESAAA-CRESSON, Centre Culturel International de Cerisy, 4-11 septembre 2018.

Didier Tallagrand, Jean-Paul Thibaud, Nicolas Tixier (dir.), **Ambiances et étendues connexes**, séminaire ESAAA-CRESSON, Opus 1, 2 et 3, Annecy-Grenoble, 2016-2017.

Nicolas Rémy, Nicolas Tixier (dir.), **Ambiances, demain | Ambiances, tomorrow | Ατμόσφαιρες, Αύριο**, 3^e Congrès international sur les ambiances, Réseau International Ambiances – Université de Thessalie, Département d'architecture, Volos, Grèce, 21-25 septembre 2016. <http://ambiances2016.arch.uth.gr>

Robert Bonamy & Nicolas Tixier (dir.), Colloque **Le quotidien filmé. Archives filmiques et espaces publics / Every Day Life Captured. Film Archives And Public Spaces**, Projet Arc 5 Région Rhône-Alpes, Traverses 19-21, ENSAG-CRESSON, Réseau Ambiances, Cinémathèque de Grenoble, Grenoble, 3-4 novembre 2014. Actes filmés disponibles en ligne sur www.ambiances.net/seminars/grenoble-2014-every-day-life-captured.html.

Nicolas Tixier (dir.), **Textures audio et ambiances sonores**. Organisation d'un séminaire, Laboratoire CRESSON, 16 novembre 2010. ENSA Grenoble – CRESSON, Ensa Nantes – Cerma, ENI Tunis – U2S, ENAU Tunis – ERA.

Nicolas Tixier, co-organisation avec Henri-Pierre Jeudy d'une Journée thématique : **Politiques du sensible et langages de la ville** dans le cadre du réseau Ambiances. Journée préparatoire au Séminaire *Ambiances urbaines en partage : Expériences du dépaysement*. Paris, 5 mai 2009. Compte-rendu sur www.ambiances.net

Nicolas Tixier, organisation du séminaire **Recherche architecturale et maîtrise énergétique**, organisation en collaboration avec le PREBAT d'une journée de présentation des recherches en cours et de débat dans l'objectif de construire un appel à propositions de recherches, Grands Ateliers de l'Isle d'Abeau, 1^{er} février 2007. Coordination du document de synthèse en collaboration avec Dominique Pierroux et Aurore Bonnet.

3.4. Coordination scientifique de travaux dans le cadre du BRAUP / DGP / MCC

L'ensemble des travaux suivants a été réalisé en équipe au sein du BRAUP (Bureau de la recherche architecturale, urbaine et paysagère / Direction Générale du Patrimoine / Ministère de la Culture et de la Communication) de septembre 2003 à février 2010 où j'ai été nommé à mi-temps Chargé de mission scientifique (sous la direction d'Eric Lengereau puis de Thierry Verdier). Je continue à assumer ponctuellement pour le BRAUP depuis 2010 des missions d'évaluation et de suivi de programmes de recherche en particulier **IMR, Ignis Mutat Res, Penser l'architecture, la ville et les paysages au prisme de l'Energie (2011-2015)**.

Colloques

Colloque **Villes nouvelles, laboratoires d'architecture, 1965-2005**, dans le cadre des Rendez-vous de l'architecture 2005 et du Programme interministériel d'histoire et d'évaluation des villes nouvelles françaises – Paris, Palais de la Porte Dorée, 6 et 7 avril 2005. Membre du comité d'organisation et du comité scientifique.

Colloque **EURAU 2005 Espace de la grande échelle en question**, 2^e journées européennes de la recherche architecturale, urbaine et paysagère, Lille, 23, 24, 25 novembre 2005. Membre du comité d'organisation et du comité scientifique.

Programmes interdisciplinaires de recherche

Membre du comité de pilotage et membre de la coordination scientifique des programmes :

- **Le grand pari de l'agglomération parisienne** (consultation internationale de recherche et développement pour l'avenir du Paris métropolitain – Janvier 2008 à mars 2009 – Membre de

la Cellule Scientifique Opérationnelle) – Soit 10 équipes lauréates articulant des structures professionnelles de projet et des laboratoires de recherche

- **L'architecture de la grande échelle** (4 sessions : 2006-2007-2008-2009) – soit 32 projets de recherche

- **Art, architecture et paysages** (4 sessions : 2002-2003-2004-2005) – soit 27 projets de recherche

Organisation et participation à la définition de ces programmes interdisciplinaires de recherche, organisation des procédures d'expertise, des comités de suivi des équipes, des séminaires de coordination scientifique et des outils de valorisation des travaux et du programme (éditions de plaquettes, sites Internet, documents de communication, etc.)

Groupes de travail

Groupes de travail « **Doctorat** ». Dans le cadre du passage au LMD (Licence-Master-Doctorat) – organisation, animation et synthèses de nombreuses séances de travail. 2004-2005. Parution du décret sur le doctorat en architecture : août 2005.

3.5. Co-encadrement de thèse de doctorat

Adrián Torres Astaburuaga, **Valencia – Mémoire naturelle, stratigraphie urbaines, réactivation par l'usage**, Doctorat en théorie et histoire de l'architecture sous la direction de Manuel Guardia Bassols (Université Polytechnique de Catalogne – Barcelone) et Nicolas Tixier, (Université Grenoble Alpes, CRESSON – ENSAG – UMR AAU), 2014-2017.

Maïlys Toussaint, **L'habituation aux ambiances. Partage de l'expérience quotidienne à la Villeneuve de Grenoble**, Doctorat sous la direction de Jean-Paul Thibaud et Nicolas Tixier, Bourse SFR Territoires en réseau, CRESSON – ENSAG – UMR AAU, 2015-2018.

Marina Popovic, **Microclimats urbains interactifs. Étude et expérimentation d'un dispositif urbain interactif de modification d'ambiance à très petite échelle**, Doctorat sous la direction de Daniel Siret, Nicolas Tixier et Virginie Meunier, Allocation doctorale Ministère de la Culture et de la Communication, Crenau – ENSAN – UMR AAU, 2013-2017.

Guillaume Meigneur, **Pratiques vidéographiques et ambiances urbaines**, Doctorat sous la direction de Jean-Paul Thibaud et Nicolas Tixier, CRESSON – ENSAG – UMR AAU en collaboration avec l'Agence InterLAND, Bourse CIFRE, 2011-2014. Soutenance mai 2015, **mention très honorable avec les félicitations**.

Laure Brayer, **Dispositifs vidéographiques et paysages urbains**, Doctorat sous la direction de Jean-Paul Thibaud et Nicolas Tixier, CRESSON – ENSAG – UMR AAU, Bourse Centre Canadien d'Architecture (CCA) et bourse DGP/MCC, 2010-2013. Soutenue le 6 octobre 2014, **Mention très honorable avec les félicitations. Prix de la thèse de l'Université de Grenoble Alpes 2015**.

3.6. Participation à des comités de thèse

Hélène Haller, **Le constructeur de bâtiments performants entre prescriptions des autorités publiques et attentes des habitants**, Doctorat sous la direction de Nicolas Buclet et Gilles Debizet, Comité de thèse : Véronique Biau, Nicolas Tixier, Dominique Vinck. PACTE, 2016-2019.

Steven Saulnier, **Vers une écologie sensorielle des mobilités augmentées : flux urbains, intelligence ambiante, corps appareillés**, Doctorat sous la direction de Jean-Paul Thibaud et Fabien Labarthe, Comité de thèse : Annie Luciani, Nicolas Tixier, Jacques Wiart. Allocation de recherche ARC 7 Innovations, Mobilités, Territoires et Dynamiques Urbaines, CRESSON – ENSAG – UMR AAU, 2016-2019.

3.7. Membre de jury de thèses de doctorat

Roberta Ghelli, **Éduquer les enfants à l'architecture. Contexte, dispositifs d'action, processus de socialisation**, Doctorat en sociologie (spécialité architecture), sous la direction de Guy Tapie, Centre Emile Durkheim, Université de Bordeaux / PAVE, Ecole Nationale Supérieure d'Architecture et de Paysage de Bordeaux, soutenance le 20 novembre 2017.

Gunnar Cervén, **The Soundscape Approach to Noise: Facilitating Soundscape Thinking in Landscape Architecture**, Doctorat of Swedish University of Agricultural Sciences, Faculty of Landscape Architecture, Horticulture and Crop Production Science, sous la direction de Carola Wingren, Cafoordsalen, Navet, SLU Alnarp, Suède, soutenance le 20 octobre 2017.

Johana Baticle, **Espaces publics et action artistique à Montpellier : de nouveaux enjeux culturels pour la ville contemporaine**, Doctorat de l'Université Montpellier III, sous la direction Frédérique Villemur, École Nationale Supérieure d'Architecture de Montpellier et Paola Viganò, Université IUAV de Venise, soutenance le 14 décembre 2016. (Rapporteur).

Emmanuel Doutriaux, **Conditions d'air. Poétique et politique des architectures de l'ambiance**, Doctorat sous la direction de Chris Younès, Université Paris 8 – Vincennes-Saint-Denis / ENSA Paris la Villette, soutenance le 16 décembre 2015. (Rapporteur).

Liang Ma, **Invention architecturale et algorithmes non-linéaires**, Doctorat sous la direction d'Arnoldo Rivkin, Université de Versailles St-Quentin-en-Yvelines / ENSA Versailles, Soutenance le 27 mai 2015.

Guillaume Meigneur, **Pratiques vidéographiques et ambiances urbaines**, Doctorat sous la direction de Jean-Paul Thibaud et Nicolas Tixier, CRESSON – ENSAG – UMR AAU en collaboration avec l'Agence InterLAND, Bourse CIFRE, 2011-2014. Soutenance le 13 mai 2015.

Laure Brayer, **Dispositifs vidéographiques et paysages urbains**, Doctorat sous la direction de Jean-Paul Thibaud et Nicolas Tixier, CRESSON – ENSAG – UMR AAU, Bourse Centre Canadien d'Architecture (CCA) et bourse DGP/MCC, 2010-2013. Soutenue le 6 octobre 2014.

4. ACTIVITÉS D'ENSEIGNEMENT

4.1. Enseignements principaux

D'octobre 1997 à juin 2002, enseignant vacataire à l'école nationale supérieure d'architecture de Grenoble.

Depuis octobre 2002 jusqu'en septembre 2015, maître-assistant titulaire à l'école nationale supérieure d'architecture de Grenoble en Sciences et Techniques pour l'architecture.

Depuis octobre 2015, professeur titulaire à l'école nationale supérieure d'architecture de Grenoble en TPCAU en Théories et Pratiques de la Conception Architecturale et Urbaine.

Au sein de l'ENSAG j'ai enseigné les ambiances architecturales et urbaines, en particulier avec un grand cours en licence 3 sur les ambiances thermiques et l'efficacité énergétique dans l'habitat (2001 à 2015). Depuis la rentrée 2016, je dirige un cours d'introduction aux ambiances pour la licence 1.

J'ai contribué longuement (2000 à 2012) au séminaire et à l'atelier de projet du master « Architecture, ambiances et cultures numériques ». Filière au sein de laquelle j'ai dirigé de nombreux séminaires et ateliers de projet autour de la problématique actuellement nommée « Architecture, territoire, paysage et urbanité » en collaboration avec mes collègues enseignants, selon les années Grégoire Chelkoff, Steven Melemis, Filippo Broggini, Jean-Paul Thibaud, Damien Masson, Jacques Scrittori, Jean-François Augoyard, etc.).

L'architecture fabrique des environnements sensibles spécifiques que le corps en mouvement appréhende en permanence. C'est à travers cet enjeu que nous explorons l'espace contemporain et les modes de conception associés. En effet, quelles que soient les conditions (sociales, économiques, géographiques, techniques), les sensibilités (vue, ouïe, mouvement, sens thermique et tactile) qui accompagnent les usages de l'espace et les phénomènes physiques (chaleur, lumière, son) se modèlent selon des formes d'expériences singulières associées aux dispositifs construits. Les formes d'expériences sensibles des éléments, de l'espace, de l'eau, de l'air, de la terre, du ciel, des variations climatiques, comme des autres habitants, irriguent ainsi l'histoire de l'espace et son avenir ; ils constituent une culture sensible de l'environnement. La pratique du projet architectural et urbain doit s'en nourrir et ces domaines nous offrent aussi des perspectives de recherche comme d'innovation.

Je contribue régulièrement aux différentes filières de master sur les questions de projets urbains et de territoire, de méthodes *in situ* et du rôle des représentations, tant à l'ENSA Grenoble que dans d'autres ENSA, Nantes, Marne-la-Vallée, Paris-la-Villette, Paris Belleville, etc., tant pour les jurys que pour des workshops ou des séminaires.

J'effectue actuellement une partie de mes enseignements sur le projet urbain et de territoire au sein de deux formations pluridisciplinaires associées à l'ENSAG (ceci se fait dans le cadre de conventions entre les établissements d'enseignement supérieur concernés) :

Institut d'Urbanisme de Grenoble / École Nationale Supérieure d'Architecture de Grenoble - Master urbanisme et aménagement option Design urbain – formation que je codirige depuis septembre 2016 avec Jennifer Buyck :

Le parcours Design Urbain vise à la préparation au métier d'urbaniste dans le champ de la maîtrise d'œuvre urbaine et à un apprentissage des métiers de la conception d'espaces publics, de conception et d'animation de projets urbains et territoriaux. Ce parcours vise à doter les étudiants d'une solide culture tant sur la ville contemporaine que sur les modalités de sa fabrique. La maîtrise des outils de représentation (dessin, cartographie, film, maquette...) est par ailleurs l'une des ambitions de cette formation. La question de la représentation est en effet indispensable si on la considère non pas comme une finalité, mais comme un potentiel atout d'expérimentation. Enfin, recherche et pratique, étroitement mêlées au sein de la formation, participent de cette initiation aux fabriques urbaines contemporaines. Si la formation s'appuie principalement sur des expériences portant sur différents terrains français, des cours et des ateliers sensibilisent les étudiants à la connaissance d'autres contextes européens. L'objectif de la formation est double : répondre aux profondes mutations du territoire et au contexte de crises (économiques, écologique, démocratiques...) déstabilisant les modalités courantes de la fabrique urbaine tout en réunissant les acteurs de la filière urbanisme-architecture-paysage pour former des professionnels capables de comprendre, d'expérimenter et de fabriquer les territoires de demain.

« Design Urbain » est une formation de l'Institut d'Urbanisme de Grenoble (IUG)¹ cohabilitée avec l'École Nationale Supérieure d'Architecture de Grenoble. Elle fait partie des diplômes reconnus pour l'obtention de la qualification aux métiers de l'urbanisme délivrée par l'Office Professionnel de Qualification des Urbanistes (OPQU). Cette formation est en partenariat avec la Haute École du Paysage, d'Architecture et d'Ingénierie de Genève (HEPIA), l'Institut de Géographie et Durabilité de l'Université de Lausanne (IGD-UNIL) et l'École Supérieure d'Art Annecy Alpes (ESAAA).

cf. <https://designurbaingrenoble.wordpress.com/>

cf. Nicolas Tixier, Pascal Amphoux, Jennifer Buyck, Didier Tallagrand, **Transect urbains et récits du lieu. Des ambiances au projet**, in Xavier Guillot, coordination, *Ville, territoires, paysage*, actes du séminaire éponyme (Isle d'Abeau, mars 2015), Saint-Étienne, Publications Universitaires de Saint-Étienne, pp. 50-57, 2016.

¹ Plus exactement, il s'agit du parcours « Design Urbain » du master Urbanisme et aménagement qui comprend trois parcours (Urbanisme et projet urbain, Design urbain, Urbanisme et coopération internationale). En septembre 2017, l'Institut d'Urbanisme de Grenoble (IUG) et l'Institut de Géographie Alpine (IGA) fusionnent dans une même UFR pour créer L'Institut d'Urbanisme et de Géographie Alpine (IUGA) au sein de l'Université Grenoble Alpes (UGA).

École Supérieure d'Art Annecy Alpes – Master Design & espace – ou je dirige le séminaire « lieu des récits / récits du lieu » (DNAP), je codirige le projet et le mémoire pour les master 2 (DNSEP) avec Didier Tallagrand qui donne lieu à un ouvrage édité chaque année (ESAAA / Presses du Réel) et participe à l'encadrement de DSRA (3e cycle en art) :

L'option Design & espace à Annecy est caractérisée par son intérêt revendiqué pour la chose publique, le commun, le politique, et elle forme des étudiants pour qu'ils puissent intervenir dans des contextes précis, localisés, ancrés dans des territoires, s'attaquant à l'épaisseur de la réalité contemporaine. Ils deviennent designers spécialisés dans les questions spatiales, travaillant sur la grande échelle, et intervenant dans l'aménagement du territoire, le paysagisme, l'urbanisme, mais aussi le champ de l'art.

cf. **Le master Design & espace, École Supérieure d'Art Annecy Alpes**, entretien de Didier Tallagrand et Nicolas Tixier, par Juliette Pommier, Revue Archistorm, novembre 2014, pp. 82-87.

4.2. Interventions régulières dans d'autres établissements d'enseignement supérieur

Dans le cadre des établissements suivants :

Institut d'Urbanisme de Grenoble, Université Grenoble Alpes (Master Urbanisme et aménagement et master Urbano mondus)

Institut de Géographie Alpine, Université Grenoble Alpes (Master Mobat)

Écoles Nationales Supérieures d'Architecture de Nantes, Paris-Malaquais, Paris-Val de Seine, Paris-La Villette, Paris-Belleville, Marne la Vallée, Versailles, etc.

4.3. Autres interventions (jeune public, formation continue)

Interventions régulières dans le cadre du DEA « Ambiances architecturales et urbaines » (2002-2006)

Cours d'initiation à l'architecture et à l'espace habiter dans le cadre des DEUG STPI et MIASS à l'UJF (2000 à 2002)

Interventions pédagogiques sur l'espace sonore en lycées et collèges (1999 à 2003)

Interventions régulières dans des cycles de formation continue sur les enjeux de maîtrise énergétique et de confort thermique (2003 à aujourd'hui)

Interventions régulières dans des cycles de formation continue sur les enjeux liés à la participation habitante dans le cadre de projet urbain (2003 à aujourd'hui)

4.4. Direction de diplôme et participation à des jurys

Dans les ENSA

Direction et suivi de PFE (Projet de Fin d'Études) et de PFE « Mention recherche » depuis 2005.

Direction et suivi de TPFE (Travaux Personnel de Fin d'Études) de 2002 à 2007.

Participations régulières à des jurys (TPFE, puis PFE et PFE « Mention recherche ») pour les écoles nationales d'architecture de Nantes, Lyon, Clermont-Ferrand, Montpellier, Paris-Belleville, etc.

Encadrement et direction de mémoire DEA ambiances architecturales et urbaines – ENSA Grenoble / Nantes – de 1999 à 2006.

Depuis 2001 : Direction et suivi de nombreux mémoires de Master 1, de Licence 3, de rapports de stage, de dossiers d'échange à l'étranger, etc.

Dans d'autres établissements

Écoles d'art, jury de DNAP et de DNSEP Design & espace (ESAAA), depuis 2011.

Master Design Urbain, Institut d'Urbanisme de Grenoble, depuis 2014.

DEA Image-Vision-Robotique – ENSIMAG Grenoble - Encadrement de stagiaires et suivi des mémoires de 1998 à 2001 en collaboration avec l'ACROE.

Direction et codirection de plusieurs stages de licence d'aménagement et stages de maîtrises de physique appliquée – 1999 à 2002.

5. ACTIVITÉS D'ADMINISTRATION ET DE MÉDIATION DE LA RECHERCHE

5.1. Participation à des instances administratives et scientifiques

Président de la Cinémathèque de Grenoble et du Festival du film court en plein air de Grenoble depuis 2009.

Membre du conseil d'administration de l'ACROE (Association pour la Création et la Recherche sur les Outils d'Expression) depuis 2008.

Membre du conseil de la recherche de l'ESAD•GV (École Supérieure d'Art et de Design • Grenoble Valence) depuis 2016.

Membre du conseil scientifique du Plan climat de l'agglomération grenobloise 2008-2014.

Membre du conseil scientifique de l'Agence d'Urbanisme de la Région Grenobloise 2011-2015.

Membre du conseil scientifique et technique du projet de Trame verte et bleue pour la ville de Fontaine depuis le printemps 2012.

Membre du comité de pilotage du Réseau International Ambiances depuis printemps 2008.
www.ambiances.net.

Membre du comité de rédaction de la revue Ambiances 2011-2014.

Membre du comité de direction du laboratoire CRESSON 2013-2015.

Membre élu du conseil de l'UMR CNRS/ECN/ENSAG/ENSAN n°1563 « Ambiances architecturales et urbaines » depuis 2015.

Membre de la commission de la pédagogie et de la recherche de l'École Nationale Supérieure d'Architecture de Grenoble 2013-2016.

5.2. Expertises, jury, comités, commissions et concours

Membre du jury du concours de recrutement des professeurs des écoles nationales supérieures d'architecture en Sciences de l'Homme et de la Société pour l'Architecture - Sciences Humaines et Sociales, printemps 2017.

Rapporteur et expert pour l'IDEX Formation, COMUE Université Grenoble Alpes, février 2017.

Expert pour le Fonds National Suisse de la recherche scientifique (FNS), Division I : sciences humaines et sociales, Berne. Depuis 2016.

Expertises pour la revue « Territorio », the Scopus-indexed review of the Department of Architecture and Urban Studies at the Politecnico di Milano, Italie, 2016 & 2017.

Membre du comité d'organisation du Colloque international pour le cinquantenaire du Centre de recherche sur l'imaginaire (CRI) « Théories et imaginaires de l'imaginaire », Grenoble-Chambéry, 3 novembre – 3 décembre 2016.

Membre du jury du concours de recrutement des maîtres-assistants des écoles nationales supérieures d'architecture en Sciences et Techniques pour l'Architecture, printemps 2016.

Expertises pour la revue « Intermédialités : histoire et théorie des arts, des lettres et des techniques / Intermediality: History and Theory of the Arts, Literature and Technologies », Montréal, février 2016.

Expertises pour la revue scientifique à comité de lecture « Sciences du Design », janvier 2016.

Membre du conseil scientifique du colloque de clôture de l'appel d'offres Ignis Mutat Res « Ce que fait l'énergie à l'architecture », MCC - ENSA Paris-Belleville, 27-28 novembre 2015.

Membre du conseil scientifique et grand rapporteur du colloque « Transition énergétique et ruralités contemporaines ». 7e rencontres EPRS, ENSA Grenoble, 18-20 novembre 2015.

Expertises pour des projets de recherche PEPS (Projets Exploratoires Premier Soutien) – Appel conjoint à Projet interdisciplinaires COMUE Université Paris-Est – CNRS, mars 2015.

Expertises pour le colloque international Tunis 2014, Ambiances in the contemporary Mediterranean public space, Tunis, 24-26 février 2014.

Personnalité qualifiée pour les auditions de titularisation dans le cadre des filières culturelles de la fonction publique territoriale, CGFPT de l'Isère, Grenoble, 5 novembre 2013.

Expertise pour la création d'une revue internationale en urbanisme environnemental pour le Conseil Scientifique d'OpenEdition de Revues.org, automne 2013.

Expertise et synthèse pour la concertation en vue de la révision du plan local d'urbanisme de la ville de Grenoble, septembre 2013.

Membre du comité de lecture de la revue Lieux communs pour le numéro 16 (automne 2013) « La fiction et le réel ».

Expertises de projets scientifiques dans le cadre de l'appel à projet de recherche Lutte contre le changement climatique, ADEME, Région Nord-Pas de Calais, 2013.

Membre du comité d'organisation du 2d Congrès International sur les Ambiances. Ambiances en acte(s), Centre Canadien d'Architecture, Montréal, 19-22 septembre 2012.

Membre du comité scientifique du colloque international L'ambiance comme enjeu de l'espace public méditerranéen contemporain, Réseau International Ambiances, Tunis, 24-26 février 2014.

Membre du comité scientifique de l'appel d'offre de recherche « Ignis Mutat Res - Penser l'architecture, la ville et les paysages au prisme de l'énergie », Expertises, suivi des équipes, animation de sessions, Ministère de la Culture et de la Communication, Ministère de l'écologie, Véolia, Vedecom, 2011-2015.

Expertises d'articles scientifiques pour La revue Ambiances, Revue Internationale sur l'Environnement Sensible, l'Architecture et l'Aménagement Urbain, 2010-2011.

Membre du conseil scientifique de l'organisation du 35^e congrès INTA « Congrès mondial du développement urbain », Lyon-Grenoble, 6-10 novembre 2011.

Expertises d'articles scientifiques pour Organised Sound: An International Journal of Music and Technology, issue 16/3 - Sound, Listening and Place, Cambridge Journal – Printemps 2011.

Expert pour le concours Europen France session 2011, Ministère de l'environnement.

Membre du comité scientifique pour 4th World Conference on Design Research, IASDR2011 « Diversity and unity » - The International Association of Societies of Design Research, T.U. Delft, NL, 31 oct. 4 nov. 2011

Membre du jury du concours de recrutement des maîtres-assistants des écoles nationales supérieures d'architecture en Sciences et Techniques pour l'Architecture, juin-juillet 2010.

Membre du comité scientifique pour le Design Research Society (DRS), Université de Montréal (Québec, Canada), 7-9 juillet 2010.

Rapporteur dans le cadre du colloque international Ambiances en partage : Culture, corps et langage / Ambiencias Compartilhadas : cultura, corpo e linguagem, Rio de Janeiro, Ministère de l'Éducation et de la culture, Brésil, 3-6 novembre 2009.

Président du jury du 1er concours inter-universitaire de film d'urbanisme (<http://urb-vo.tv>), Grenoble, 11-14 octobre 2009.

Membre du comité scientifique pour le Swiss Design Network Symposium 2009, Lugano, Suisse, 12-13 novembre 2009.

Membre du comité scientifique des Quatrièmes rencontres du réseau d'enseignement du développement durable dans les écoles d'architecture. Thème : L'utilisation des outils de simulation et de modélisation dans la démarche de conception architecturale. ENSA Versailles. 4-5 juin 2009.

Membre du comité de pilotage et d'organisation du colloque international, « Faire une ambiance / creating an atmosphere », Grenoble, UMR Ambiances architecturales et urbaines, 10, 11, 12 septembre 2008.

Membre du comité scientifique pour ICMC (International Computer Music Conference) à Belfast du 24 au 29 août 2008.

Membre du comité scientifique pour le Swiss Design Network Symposium 2008, Berne, Suisse, 30-31 mai 2008.

Membre de la Cellule Scientifique Opérationnelle (CSO) pour la consultation internationale « Le grand pari(s) de l'agglomération parisienne », Ministère de la Culture et de la Communication, 2007-2009.

Co-Chair pour Enaction_in_Arts Artistic and Scientific Committee (Preliminary), in « 4th International Conference on Enactive Interfaces », Grenoble, 19-22 novembre 2007.

Membre du jury du concours Façades intégrant des technologies innovantes – Les Grands Ateliers de l'Isle d'Abeau, INES, PREBAT, 18 avril 2007.

Membre du jury du concours de recrutement des maîtres-assistants des écoles nationales supérieures d'architecture en Sciences et Techniques pour l'Architecture, juin-juillet 2005.

Participation à l'atelier « Fragile » dans le cadre de l'action prospective Précaire(s): precarious - european network Grenoble / Köln / Milano / Warsaw (2007-2009) – Soutenu par le PUCA / DGUHC – Atelier regroupant Local.Contemporain, Multiplicity, Plan, Bruno Latour, Yves Citton, Daniel Bougnoux, etc. – 4 juillet 2007.

Membre du comité de prospective départementale Local.Contemporain - Laboratoire de Sculpture Urbaine, 2003-2006. Membre du comité de rédaction pour un projet de revue et d'actions urbaines intitulées "Local / Contemporain" : (n°1 2004 « Vous êtes ici », n°2 2005 « C'est dimanche ! », n°3 2006 « Villes invisibles »).

Membre du jury Utopies concrètes – Projets lauréats exposés à la Biennale d'architecture de Venise, Jury à Paris à la Cité de l'architecture, Direction de l'architecture et du patrimoine, 29 juillet 2004.

Rapporteur pour Les nouveaux albums des jeunes architectes, MCC, Paris, 2003.

Membre du jury du prix du projet citoyen de l'UNSFA, colloque de Dijon, octobre 2002.

6. ACTIVITÉS DE VALORISATION

6.1. Expositions, rencontres, séminaires, actions publiques

Nicolas Tixier (resp.) et alii, **Rétroprospective. La Villeneuve de Grenoble. Héritage-fiction.** Proposition d'un dispositif de plateau radio-vidéo avec des duplexes et des projections multi-écrans. Proposition retenue dans le cadre de la 1^{ère} Biennale d'Architecture de Lyon, partenariat : École Nationale Supérieure d'Architecture de Grenoble, École Supérieur d'Art Annecy Alpes, L'Institut d'urbanisme de Grenoble, BazarUrbain, Ville9 la Série, La Cinémathèque de Grenoble, Radio Campus Grenoble, Lyon, 10 et 11 juin 2017.

Jennifer Buyck, Jean Sirdey, Nicolas Tixier, Maïlys Toussaint, **Lectures-déambulations. Grenoble, un creuset alpin ? Imaginaire et urbanisme.** In *Colloque international pour le cinquantenaire du Centre de recherche sur l'imaginaire (CRI)* « Théories et imaginaires de l'imaginaire », Grenoble-Chambéry, 3 décembre 2016.

Pascal Amphoux, Nicolas Tixier, **Transects et tables longues**, planches et textes, contribution à l'exposition « Les figurations de la cité », sous le commissariat de Jean-Pierre Péneau, Paris, Académie de l'Architecture, octobre-novembre 2016.

Nicolas Tixier & Jennifer Buyck, **Traversées urbaines, Saison 7**, organisation et animation d'un cycle-conférence multi-partenaires, Cinémathèque de Grenoble, octobre 2016 - janvier 2017. www.traversees-urbaines.fr.

Pascal Amphoux, Nicolas Tixier, **Cinéma de Passages**, 4 soirées de projections – débats dans le cadre de l'exposition internationale *Passages, espaces de transition pour la ville du XXIe siècle*, Institut pour la Ville en Mouvement / Cinémathèque de Grenoble, Paris, Galerie Espace du Désir, 11, 18, 25 mai et 1^{er} juin 2016.

Nicolas Tixier (contribution par plusieurs pièces graphiques et vidéographiques à une exposition collective), **Explorations figuratives - les nouvelles lisibilités du projet**, commissariat Jean-François Coulais, Élisabeth Essaïan, Béatrice Mariolle, ENSA Paris Belleville, exposition du 16 novembre 2015 au 14 décembre 2015.

Nicolas Tixier & Jennifer Buyck, **Traversées urbaines, Saison 6**, organisation et animation d'un cycle-conférence multi-partenaires, Cinémathèque de Grenoble, octobre 2015 - janvier 2016. www.traversees-urbaines.fr.

Pascal Amphoux, Nicolas Tixier, Éva Chaudier, **Passages du cinéma**, parcours-projections-expositions dans le cadre des Journées du Patrimoine, Cinémathèque de Grenoble – Institut de la Ville en Mouvement, 19 septembre 2015.

Nicolas Tixier, Dorian Degoutte, **Habiter n'est pas loger – Promenade cinématographique dans les modes d'habiter.** Dispositif en plein air de 6 écrans. Cinémathèque de Grenoble – Biennale de l'habitat durable, Grenoble, 10 avril 2015.

Nicolas Tixier & Jennifer Buyck, **Traversées urbaines, Saison 5**, organisation et animation d'un cycle-conférence multi-partenaires, Cinémathèque de Grenoble, octobre 2014 - janvier 2015. www.traversees-urbaines.fr.

Nicolas Tixier & Maison d'architecture de Savoie, **24H de cinéma, un autre regard sur la ville**, Programmation de 6 films et de deux Slow TV. Rencontre du Réseau des Maisons d'Architecture, Marseille, Friche de la Belle de Mai, 17-18 octobre 2014.

Nicolas Tixier, **Confort critique**, conférence-projections dans le cadre de l'Assemblée Générale du CAUE de l'Ardèche, Privas, 12 juin 2014.

Jean Boutry, Michel Lussault, Nicolas Tixier, **Les hommes dans la ville, des utopies urbaines aux éco-quartiers**, table ronde, lycée C. Baudelaire à Cran-Gevrier, CAUE Haute-Savoie, 3 avril 2014.

Nicolas Tixier (préparation et animation), **Soirée projection et débat cinématographique** avec Mahmoud Ismaïl (Egypte) et Hichem Ben Ammar (Tunisie), in *Tunis 2014 International Conference Ambiances in the contemporary Mediterranean public space*, Tunis, 24 février 2014.

Nicolas Tixier & Jennifer Buyck, **Traversées urbaines, Saison 4**, organisation et animation d'un cycle-conférence multi-partenaires, Cinémathèque de Grenoble, octobre 2013 - janvier 2014. www.traversees-urbaines.fr.

Pascal Amphoux, Nicolas Tixier (dir.), **Marcher / Angers / Penser, La Marche comme instrument de renouvellement urbain**, 2 jours d'ateliers publics autour de la marche, AURA / SPL, Amiens, 4-5 octobre 2013.

Nicolas Tixier (dir.), Sylvain Angiboust, Xavier Dousson, Steven Melemis, **Retour vers le futur : Études sur Paris, un film d'André Sauvage (1928)**, action projection débat dans le cadre de la manifestation scientifique « La grande ville 24H chrono » MCC / CAPA / AiGP, Collaboration : Cinémathèque de Grenoble, CNC, AFF, Carlotta Films, L'avant-scène cinéma, projection avec accompagnement musical inédit puis débat « Un film d'hier pour penser aujourd'hui la ville de demain ? », auditorium de la Cité de l'architecture et du Patrimoine, 2013 – 1er juin 2013.

Nicolas Tixier & collectif Zoom, **Plateau radio sur le thème des espaces partagés**, animation dans le cadre de la manifestation La Novela, Bellefontaine, Le Mirail, Toulouse, 12 novembre 2012.

Nicolas Tixier & coll., **Traversées urbaines, Saison 3**, organisation et animation d'un cycle-conférence multi-partenaires, Cinémathèque de Grenoble, octobre 2012 - printemps 2013. www.traversees-urbaines.fr.

Nicolas Tixier, **Vidéo Exhibition, Organisation d'une exposition vidéo dans 3 salles du CCA**, dans le cadre du 2e congrès international Ambiances, Centre Canadien d'Architecture, Montréal, 19 septembre 2012.

Nicolas Tixier (dir.) & coll., **Coupes estivales, conception d'un atelier sur les chaleurs urbaines** dans le cadre du mois du développement durable, Ville de Fontaine, 2012.

Nicolas Tixier, **Quelle place pour la culture dans la vie sociale ?**, participation à la table ronde animée par Arnaud Laporte in forum Re-faire Société, La république des idées, Grenoble, MC2, 13 novembre 2011.

Nicolas Tixier & coll., **Traversées urbaines, Saison 2**, organisation et animation d'un cycle-conférence multi-partenaires, Cinémathèque de Grenoble, octobre 2011 - printemps 2012. www.traversees-urbaines.fr.

Nicolas Tixier & coll., **Traversées urbaines, Saison 1**, organisation et animation d'un cycle-conférence multi-partenaires, Cinémathèque de Grenoble, octobre 2010 - printemps 2011. www.traversees-urbaines.fr.

Nicolas Tixier, animation des débats suite à l'atelier **Parcours urbains participatifs**, XIIe Rencontres de la démocratie locale, Adels, atelier AURG - BazarUrbain, Grenoble, 29 mai 2010.

Sylvie Barnezet, Nicolas Tixier, **Projection débat autour du film « Mon oncle » de Jacques Tati**, dans le cadre de la Biennale de l'habitat durable, Collaboration AURG, Cinémathèque de Grenoble, 24 mars 2010.

Benjamin Hecht, Pierre Renault, Nicolas Tixier, **Projection débat autour du film « Paysages manufacturés » de Jennifer Baichwal** avec comme invité Philippe Panerai (grand prix de l'urbanisme 1999) dans le cadre du 1er concours inter-universitaire du film d'urbanisme, Collaboration IUG, Cinémathèque de Grenoble, 14 octobre 2009.

Nicolas Tixier, participation à l'**atelier de réflexion sur la Ville Foraine**, le Polau, Tours, 25 septembre 2009.

Sylvie Barnezet, Nicolas Tixier, **Projection débat autour du film « Le fils de l'épicier » d'Eric Guirado**, dans le cadre de la sortie de la revue « Les dossiers de demain » sur le thème « Villages cherchent visages », Collaboration AURG, Cinémathèque de Grenoble, 11 mai 2009.

Nicolas Tixier, Henry Torgue, **L'habitat dans tous ses états**. Projection débat autour du film « Augustin roi du Kung Fu » de Anne Fontaine, dans le cadre du mois de l'architecture, Cinémathèque de Grenoble, 8 novembre 2008.

Guy-Claude François [Nicolas Tixier, présentation et organisation], **Guy-Claude François, scénographe, Construire pour le temps d'un regard**. Accompagné d'une projection-débat à la cinémathèque de Grenoble, in Colloque international « Faire une ambiance », 11-12 septembre 2008.

Sylvie Barnezet, Nicolas Tixier, **Quatre quartiers en film : Bedzed, Fribourg, Malmö, Vancouver**, Soirée projection débat, AURG, Cinémathèque de Grenoble, Grenoble, 9 juin 2008.

Nicolas Tixier et al. **Chaleurs urbaines**, exposition forum débat, projet Métro avec l'ENSAG, l'IUG, l'IGA, master MOBat, Biennale de l'habitat durable, La Plateforme, Grenoble, 22 mai – 19 juin 2008. www.grenoble.archi.fr/Chaleursurbaines. Entretien sur le projet paru in Millénaire 3. Centre ressources prospectives du Grand Lyon.

Nicolas Tixier, **La carte comme promesse du monde, autour de Serge Daney**, Café d'architecture, "Les livres qui nous ont touchés" mardi 18 mars 2008 à la Maison de l'Architecture de l'Isère.

Collectif BazarUrbain, **La fabrique urbaine à l'épreuve des usages**, exposition de la démarche et des travaux de BazarUrbain : 7-8 février 2008 à l'Institut d'Urbanisme de Grenoble dans le cadre du colloque : « La planification territoriale : imaginer, anticiper et organiser ».

Daniel Beysens, Filippo Broggini, Vinicius Raducanu, Nicolas Tixier [intervention et organisation], **Des architectures de rosée**, dans le cadre du projet « Chaleurs urbaines », journée séminaire aux Grands Ateliers de l'Isle d'Abeau, 19 décembre 2007.

Jocelyne Weiss-Leclercq, Olivier LeSaint, [Nicolas Tixier organisation et débat], **Lucien Le Saint, chef opérateur pour les Archives de la planète – La captation du monde**. Projections-débat, Cinémathèque de Grenoble, en collaboration avec l'ENSAG et l'IUG, 19 octobre 2007.

Gilles Baud-Berthier [Nicolas Tixier organisation et débat], **Albert Kahn : Les yeux ouverts, pour un inventaire du présent**. Projections-débat, Cinémathèque de Grenoble, en collaboration avec l'ENSAG et l'IUG, 12 octobre 2007.

Stéphane Bou, Jean-Baptiste Thoret, Nicolas Tixier, **Robert Altman : Le spectacle de l'Amérique**. Projection-débat « M.A.S.H. », Cinémathèque de Grenoble, 2 mars 2007.

Nicolas Tixier, Nathalie Wolberg, **On air**, installation dans l'espace public pendant la manifestation Plan 06, Köln, septembre 2006. [www.plan-project.com].

Jean-François Augoyard, René Farabet, Nicolas Tixier (animation et organisation), **L'espace sonore en création**, soirée publique : écoutes, conférences et débat, Monceau-les-Mines, 10 septembre 2004.

Nicolas Tixier (resp.), Karine Houdemont, Patrice Notteghem, Julien Mc Oisans, Nicolas Lounis, Ricardo Atienza, **Installation sonore à la Briqueterie** – Design sonore et recherches associées, in Progetto ARCH/ART – Progetto di spazi sensoriali in contesti territoriali, il suono, la forma, la materia, il colore, la luce nel reale e nel virtuale, Ciry le Noble, été 2004.

Odile Fillion, Florence Lipsky, Pascal Rollet, Nicolas Tixier et alii., **Organisation d'une rencontre écrivains - architectes sur le thème de la contrainte**, Ouarchipo, Institut Français d'Architecture, Paris, 1,2,3 juin 2001.

Nicolas Tixier et alii, **Semaine de la science, Espaces sonores grenoblois**, Grenoble, MJC Allobroges, octobre 2000.

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Nicolas Tixier, **A l'écoute de nos espaces**, 4 interventions dans le cadre d'un Parcours Art - Science - Technologie organisé par l'ACROE, Semaine de la Science, Grenoble, 18 et 21 octobre 1999.

Michel Warren, Nicolas Tixier, **Jacques Feyder, cinéaste**, cycle de films, exposition photographique, circuit des cinémathèques françaises et archives du film (FCAFF) (1998-1999).

Michel Warren, Nicolas Tixier, **Jean Grémillon, cinéaste - musicien**, cycle de films, exposition photographique, circuit des cinémathèques et archives du film (FCAFF) (1998).

Nicolas Tixier, Philippe Borsoi, **Tentative d'approche d'un espace public urbain à travers ses écrits**, Photographies, École d'Architecture de Grenoble, 28 octobre au 21 novembre 1997.

Michel Warren, Nicolas Tixier, **Lazare Meerson, décorateur cinéma**, cycle de films, circuit des cinémathèques françaises et archives du film (FCAFF) (1996-1997).

6.2. Productions audio-visuelles

Nicolas Tixier, **Chroniques Ville & Cinéma**, in *Radio Magny*, émission La fabrique urbaine produite par Aldo Bearzatto, production d'une chronique par mois à partir de février 2017 - podcastable.

Pascal Amphoux, Nicolas Tixier (dir.), Julien Perrin (resp. vidéo), Jérémie Bancilhon (carte web), **Le Bourg en marches. Une démarche citoyenne pour la requalification de la ville historique et du parvis de la Cathédrale à Fribourg**. Miniatures urbaines vidéographiques. Ville de Fribourg, 2014.

Nicolas Tixier (dir.), Naïm Aït Sidhoum (resp. production vidéo) and alii., **Amiens, le quotidien en projets**, vidéo, www.bazarurbain.com/amiens, 100 mn, 2013.

Nicolas Tixier, **Entretien avec Robert Bober**, Cinémathèque de Grenoble / Le printemps du livre, réalisation Yann Flandrin, Grenoble, 9 et 10 avril 2011, 45 mn.

Laure Brayer (réalisation), Guillaume Meigneur (Montage), Nicolas Tixier (direction), **Urban Taskscapes. Looking at 5 Metropolises. Hanoï, Helsinki, Bamako, Recife, Montreal**. Film vidéo, 14 mn, production ENSAG-CRESSON & Grenoble Alpes Métropole, novembre 2011. Projection publique 7 novembre 2011 – 35^e congrès INTA, MC2, Grenoble.

Nicolas Tixier, JuL McOisans, **The Recuperation of Public Space: A Closer Look at Bogotá, Colombia: 50 sounds and 55 short movies** in Ned Kaufman (Éd.) *Pressures and Distortions: City Dwellers as Builders and Critics. Four Views*, Éd. Rafael Viñoly Architects PC, New York, Déc. 2011, Cdrom audio et vidéo, 2011.

Uli Seher, Nicolas Tixier & étudiants, **Netzwerke – Bewohnen**, Réalisation d'une vidéo numérique sur le thème de l'habiter et de son dispositif d'exposition pendant la manifestation Plan 05, Köln, septembre 2005 [www.wiewirwohnenwerden.de].

Nicolas Tixier (coordination) avec Ricardo Atienza, Karine Houdemont, Nicolas Lounis, Damien Masson, JuL McOisans, & Armelle Reymond, **Ciry, Installation sonore publique dans la Briqueterie du Touillard à Ciry-le-noble (71)**, dans le cadre du projet ARCH-ART, bande son en octophonie, CRESSON – Écomusée du Creusot, 2004.

JuL McOisans, Nicolas Tixier, Lesconil, **contribution to Acoustic environments in change, - Six Villages**, projet dirigé par Helmi Järviluoma [Université de Turku – Finlande], CD audio, CRESSON, 2000.

Nicolas Tixier, Samuel Laveaud, Nicolas Rémy, **Effet de métabole. 26 fragments sonores en milieu urbain**, CD audio, CRESSON, Région Rhône-Alpes, 1998.

6.3. Entretiens publiés

« Réalité sociale, fiction politique » in dossier sur la biennale d'architecture de Lyon 2017 « Dire et faire autrement l'architecture ». Entretien de Steven Melemis et Nicolas Tixier, par Stéphanie Sonnette, *Revue d'architecture*, n°253, mai 2017, pp. 72-73

« Le master Design & espace, École Supérieure d'Art de l'Agglomération d'Annecy », entretien de Didier Tallagrand et Nicolas Tixier, par Juliette Pommier, *Revue Archistorm*, novembre 2014, pp. 82-87.

« Le mythe du bon Sauvage, entretien autour du film d'André Sauvage, *Études sur Paris (1928)* », avec Sylvain Angiboust, Xavier Dousson et Nicolas Tixier, *Mét(r)onymie*, n° 3, automne 2013, pp. 41-47.

« Un urbanisme des usages » in dossier « Vers une société active sur son cadre de vie ». Entretien de Marie-Christine Couic et Nicolas Tixier, *Revue d'architecture*, n°253, mars 2011, pp. 50-51.

Nicolas Tixier, entretien à propos du projet Chaleurs urbaines : « Bien sûr la ville doit être fonctionnelle, c'est une nécessité. Mais elle ne doit pas être que cela. Chaque lieu doit aussi être un endroit d'expériences sensibles, d'usages ou de rencontres sociales possibles. », in www.millenaire3.com, mars 2008.

7. ACTIVITÉS DE PROJET URBAIN

Les projets et études sont réalisés dans le cadre du collectif BazarUrbain et le plus souvent en cotraitance avec d'autres partenaires.

Ne sont indiqués ici que les projets urbains qui trouvent un lien avec la recherche, soit en impliquant des outils et notions issus de la recherche dans le cadre d'un projet, soit par l'activité de recherche lorsqu'elle permet ensuite de ressaisir des expériences pratiques menées dans le cadre de projets urbains.

Chaque projet possède une dimension collective dans le montage d'équipe au sein de la maîtrise d'œuvre, en collaboration souvent étroite avec la maîtrise d'ouvrage, et par l'implication d'acteurs et d'habitants locaux.

Nous indiquons pour chaque projet les éditions correspondantes. Les documents sont pour la plupart, téléchargeables sur www.bazarurbain.com.

7.1. Projets sous la direction de BazarUrbain

Nicolas Tixier (dir.), Didier Tallagrand, Jérémie Bancihon, **L'affaire de l'aqueduc de la Reine Pédaue**, prospective urbaine le long d'une ligne inédite. Toulouse Métropole, 2014-2015.

Édition numérique – <http://aqueduc.jeb-project.net>

Nicolas Tixier (dir.), **Amiens 2030, le quotidien en projet**. Consultation pour le devenir de l'agglomération amiénoise, Amiens Métropole, 2010-2012. Collaborations : Contrepoint, Chronos, Zoom, experts.

Edition : *Amiens 2030. Le quotidien en projets*, Éd. BazarUrbain, Grenoble, 2013, 488 p.
+ vidéo (110 mn)
www.bazarurbain.com/amiens

Nicolas Tixier (dir.), **Après le chantier ? Ateliers publics, Bellefontaine**, Ville de Toulouse, 2010-2014. Collaborations : Zoom et La Condition Urbaine.

Edition : *Bellefontaine, Paroles données, paroles rendues*, CD audio, BazarUrbain / Zoom / Ville de Toulouse, 2010.

Suzel Balez, Nicolas Tixier (dir.). **Concertation pour le réaménagement de la Place de la République**, Direction de la Voirie et des Déplacement, Ville de Paris, 2008-2009. Collaboration : Institut d'Urbanisme de Paris.

Edition : *La place de la République en marches*, livret public, BazarUrbain / Ville de Paris, 260 p., 2009.

Jean-Michel Roux, Nicolas Tixier (dir.), **Tisser les franges. Hem, Quartier des Hauts Champs**, ANRU, groupe CMH / Ville de Hem, 2005-2008.

Edition : *Hem. Les Hauts Champs. La fabrique d'un quartier.*
Éd. CMH - Ville de Hem – BazarUrbain, Hem, 2009, 112 p.

7.2. Projets en codirection BazarUrbain / Contrepoint

Pascal Amphoux & Nicolas Tixier (dir.), **Consultation pour le réaménagement du bourg à Fribourg (CH)**, Ville de Fribourg, 2014.

Edition : *Le Bourg en marches*, BazarUrbain / Contrepoint / Ville de Fribourg, livret public, 2014, 288 p.

Pascal Amphoux & Nicolas Tixier (dir.), **La question des bandes actives – le cas de l’avenue de France, Paris**, réflexions prospectives, Direction de la Voirie et des Déplacements, Ville de Paris, 2013.

Pascal Amphoux & Nicolas Tixier (dir.), **Marcher Angers Penser**, Agence d’Urbanisme de la Région Angevine, 2013-2014.

Pascal Amphoux & Nicolas Tixier (dir.), **Consultation pour le réaménagement des Grand-Places à Fribourg (CH)**, Ville de Fribourg, 2010-2013.

Edition : *Les Grand-Places en marches*, BazarUrbain / Contrepoint / Ville de Fribourg, livret public, 232 p., 2010.

Pascal Amphoux & Nicolas Tixier (dir.), **Utopies périphériques**, Réflexion conceptuelle et prospective sur les potentialités d’enrichissement programmatique du Tronçon Ouest Périphérique (TOP) et de mutation urbaine du Bd Laurent Bonnevay (PÉRIPH Est), Agence d’Urbanisme pour le développement de l’agglomération Lyonnaise, 2010-2011.

Tome 1 : TOP Cahier de références (124 p.)
Tome 2 : TOP Document de synthèse (25 p.)

7.3. Projets en cotraitance

Fabienne Boudon, Lou Bellegarde (dir. et resp. Particules), Nicolas Tixier (resp. BazarUrbain + collaboration Ryma Hadbi), D’ici là Paysage, La fabrique de la ville, et collaborateurs, **Projet urbain, quartier de l’Abbaye, Grenoble**, SAGES-ACTIS-Ville de Grenoble, 2017-2018.

Bernard Paris, Jean-Marc Fayel (dir.) Alain Marguerit (resp. Atelier des paysages) Nicolas Tixier (resp. BazarUrbain), **Projet de renouvellement urbain, quartier Reynerie, Toulouse**, ANRU, 2010-2018.

Jean-Marc Fayel (dir.), Nicolas Tixier (resp. BazarUrbain), **Vetrotex, Chambéry**, 2013-2014 – Dialogue compétitif – Second.

Alain Marguerit (dir. Atelier des paysages), Jean-Marc Fayel (resp. Atelier Bernard Paris), Nicolas Tixier (resp. BazarUrbain), Pascal Amphoux (resp. Contrepoint), **Eco-quartier de la Cartoucherie**, Toulouse, 2013.

Finn Geipel, Fabienne Boudon (dir. agence LIN), Pascal Amphoux & Nicolas Tixier (resp. ateliers publics et invention programmatique), **Contrat de développement territorial, Territoire Est de la Seine-Saint-Denis**, 2011-2012.

Tome 1 : Vision territoriale (128 p.)

Tome 2 : Situations spécifiques (106 p.)

Tome 3 : Stratégie de la rumeur (92 p.)

Tome 4 : Atlas actif (142 p.)

Pascal Amphoux (dir.), Jean-Michel Roux et Nicolas Tixier (resp. étude territoriale), **Runninghami. Charte design : conception de protections antibruit le long des voies rapides urbaines**, DDE de la Loire, 2005-2006. Collaborations : BlueOfficeArchitecture, C.I.A. (acoustique), Les éclairagistes associés.

Tome 1 : Analyse pluridisciplinaire du territoire (84 p.)

Tome 2 : Présentation du concept design (54 p.)

Tome 3 : Définition technique d'une opération type (60 p.)

- II -

**SÉLECTION D'ARTICLES
(1998-2016)**

Parcours de lecture de la Place Sainte-Claire

(1998)

Nicolas Tixier, **Parcours de lecture de la place Sainte-Claire**, in Vincent Lucci (dir.). *Des écrits dans la ville. Sociolinguistique d'écrits urbains : l'exemple de Grenoble*, Éditions L'Harmattan, Paris, 1998. pp. 267-301.

PARCOURS DE LECTURE D'UN ESPACE PUBLIC URBAIN

Nicolas TIXIER¹

Travaux pratiques :

Observer la rue, de temps en temps, peut-être avec un souci un peu systématique.

S'appliquer. Prendre son temps. Noter :

le lieu : La terrasse d'un café près du carrefour Bac - Saint Germain.

L'heure : sept heures du soir.

La date : 15 mai 1973.

Le temps : beau fixe.

(...)

Lire ce qui est écrit dans la rue : colonne Morris, kiosques à journaux, affiches, panneaux de circulation, graffiti, prospectus jetés à terre, enseignes de magasins.

Georges PEREC, *Espèces d'espaces*, Éd. Galilée, 1974.

Peut-on faire une lecture de l'espace, au sens premier du terme, traiter un recueil des écrits d'une ville comme éléments participant de notre quotidien, de nos imaginaires de citadin, d'hommes en déplacement, de *flâneurs* ? Comment en saisir le fonctionnement, les ambiances, les poétiques, les influences sur nos pratiques de citadin ? Pour étudier le rôle des écrits dans nos perceptions quotidiennes de l'espace public urbain, il nous faut alors, selon une méthodologie que nous expliciterons plus loin, *appréhender, cheminer, suivre, lire, faire lire, relever, inventorier, présenter, représenter...*

Notre champ d'étude est pris au croisement des trois composantes que sont l'espace public urbain, le citadin et les écrits.

En premier lieu l'espace public urbain ; il s'agit de l'espace vécu par le citadin et pratiqué quotidiennement. Nous prendrons sa définition chez Hanna ARENDT dans *La condition de l'homme moderne*, où l'espace public est d'abord un espace de visibilité, un espace d'accessibilité perceptive : " Le mot public [...] signifie d'abord que tout ce qui paraît en public peut être vu et entendu de tous, jouit de la plus grande publicité possible. Pour nous l'apparence - ce qui peut être vu et entendu par autrui comme par nous-même - constitue la réalité "²

Nous nous intéressons aussi au citadin *en lecture* ; il s'agit de toute personne sachant lire qui chemine, *flâne* dans la ville. Afin de bien percevoir le rapport du citadin avec les écrits urbains, il est fondamental d'adopter les modes selon lesquels il met en place ces relations, à savoir : la perception et le mouvement. *In situ*, l'action motrice et l'action perceptive sont indissociables³.

La troisième composante est constituée par les écrits. On ne sélectionne ici aucun écrit en particulier. Il s'agit de tous les écrits perceptibles *in situ*, sans limitation de langue,

¹ Ce travail est extrait de mon diplôme d'architecture sous la direction de Jean-Paul THIBAUD - Grenoble - Automne 1996 - Collaborations diverses : Philippe BORSOI (photographies), Nicolas BOYER, Audrey LEBLANC.

² Hanna ARENDT, *La condition de l'homme moderne*, Paris, Éd. Calmann-Levy, 1961, p. 89.

³ Comme ne cesse de le dire Erwin STRAUSS par son couple Sentir / Se mouvoir in *Du sens des sens*, trad. Thinès et Legrand, Éd. Jérôme Millon, Grenoble, 1989.

de valeur, de sens, de temporalité, de graphie, de lisibilité, de support ou d'autre critère... C'est ce que l'on pourrait appeler le *décor langagier scriptural de la ville*⁴.

Concernant cette étude exploratoire nous avons formulé l'hypothèse principale suivante : la lecture des écrits urbains est un registre qui articule perception et motricité dans l'espace public urbain par des modes de mobilisation du citadin lecteur. Les écrits participent d'une construction de l'espace par des types de cheminements mettant en jeu autant des modes d'attractions que d'évitements.

Pour appréhender leur rôle dans notre univers urbain, une approche des ambiances par la méthodologie du CRESSON⁵ a été mise en œuvre ; elle rejoint en plusieurs points une approche plus esthétique que nous trouvons chez certains écrivains, cinéastes, photographes...

On peut se référer en premier lieu à Georges PEREC pour ses tentatives de relevés spatio-temporels, toujours très singulières où il nous dit, en nous mettant quasiment le stylo en main, qu'" il faut y aller plus doucement, presque bêtement. Se forcer à écrire ce qui n'a pas d'intérêt, ce qui est le plus évident, le plus commun, le plus terne "⁶. Il nous en fait des démonstrations par la résonnance que peuvent avoir certains de ses textes en rapport à notre propre ordinaire : *Tentative d'épuisement d'un lieu parisien*, *Un homme qui dort*, *L'infra-ordinaire*, *Espèces d'espaces*. Autant d'écrits qui agissent comme des invités à l'expérience de l'espace urbain, positionnant ainsi leur questionnement à l'ordinaire : " Interroger l'habituel. Mais justement, nous y sommes habitués. Nous ne l'interrogeons pas, il ne nous interroge pas, il semble ne pas faire problème, nous le vivons sans y penser "⁷

On retrouve des descriptions de la ville avec la figure du *flâneur* développée chez Walter BENJAMIN⁸ dans *Paris, Capitales du XIXème siècle, le livre des passages*. Ou encore lorsque dans *Sens Unique*, il utilise la rue comme un collage et se sert de ses écrits pour en têtes de chapitres.

Plus récemment Pierre SANSOT, par une approche plus sociale touchant aux légendes urbaines, exprime cette poésie brute du langage de l'homme urbain⁹. Lorsqu'il

⁴ Corpus nommé ainsi par D. LEHMANN in " Mur / Murs ", *Cahier du Français des années 80*, n° 1, 1985, p. 146.

⁵ CRESSON : Centre de Recherche sur l'Espace Sonore et l'Environnement Urbain. Grenoble - URA CNRS 1268. On peut se référer pour une définition approfondie de la notion d'ambiance architecturale et urbaine à l'article de Jean-François AUGOYARD : L'environnement sensible et les ambiances architecturales, in *L'espace géographique*, n° 4, 1995, pp. 302-318.

⁶ in Georges PEREC, *Espèces d'espaces*, Éd. Galilée, Paris, 1974.

⁷ in Georges PEREC, " Approche de quoi ? " in *Cause commune*, n° 5, février 1973, pp. 3-4.

⁸ A partir d'une "flânerie" par la rue *Sens Unique* et dans *Paris, Capitale du XIXe siècle*, Olivier RATOIS nous explique qu'un dépassement du couple sujet/objet à propos des notions de *constellation* et de *collectionneur* choisis par l'auteur est fait par une mise en place parallèle de réseaux d'objets et des mouvements du piéton. Considérant la rue comme un "bazar" à proprement parler, il cite Gérard RAULET : "le présent du promeneur et de la ville est un présent discontinu, soumis aux chocs de la promenade qui vague entre fantasmagorie et archéologie de ce présent qui situe la modernité". "Pour une archéologie de la post-modernité", in *Weimar ou l'explosion de la modernité*, Anthropos, 1984, p. 9 in Olivier RATOIS, Le sens de la marche, dans les pas de Walter Benjamin ", in *Les annales de la recherche urbaine*, 1995, n° 57-58, p. 73.

⁹ Comme le dit Mikel DUFRENNE dans son introduction à *Poétique de la ville*, Éd. Librairie des Méridiens, Klincksieck et Cie, Paris, 1984, p. 5.

nous dit qu’“ un homme peut à lui seul, s’emparer d’une ville ”¹⁰, la dimension de la cité perçue, prise par le citadin comporte une force, une nécessité : “ La ville des économistes ou des géographes ou des cartographes et des urbanistes n’effacera jamais de mon horizon la ville perçue, comme l’on biffe une malheureuse erreur ou comme un fantôme se dissipe avec le lever du soleil. Car la ville que je rencontre, que je traverse, se donne à moi d’une façon fragmentaire et sur le mode de la succession ; elle n’aura jamais la transparence d’un concept ”¹¹.

Nous sommes bien dans et *de la ville*.

Face à un espace de lisibilité, chaque citadin, lecteur, compose son texte, le met en résonance. Cette sensibilité de la rue, on la retrouve chez les surréalistes bien sûr, mais aussi chez les Oulapiens, les écrivains de romans noirs où la rue est à la fois scène de tragédie et lieu de déambulation et de solitude. *La poésie mange les murs*¹² nous dit même Léo MALET.

Cette poétique est aussi captée par le photographe, le caméraman servant de support aux interventions de l’artiste : d’Ernest PIGNON ERNEST, des tagueurs, de DOISNEAU à Augie WREN, *le buraliste du conte de Noël* de Paul AUSTER (1991). Ou encore à travers le documentaire de Robert BOBERT (1992, INA) sur les lieux de vie toujours revisités par Georges PEREC, *En remontant la rue Vilin*, où l’on peut, entre autres, suivre l’évolution de l’enseigne “ coiffeur pour dame ”.

Si l’on considère l’écrit comme un des éléments qui participe aux ambiances urbaines, on peut lui associer le triptyque d’étude du CRESSON, à savoir qu’une ambiance urbaine est à la fois forme construite, forme perçue et forme représentée.

Toute chose pour exister a besoin d’un spectateur¹³ ; c’est bien cette approche modale qui nous dit que nous ne sommes pas dans le monde, mais que nous sommes du monde. Il nous faut penser l’ordinaire comme une construction perceptive alors qu’habituellement l’ordinaire est ce qui va de soi.

SITE D’ETUDE ET METHODOLOGIE

Le site retenu pour l’étude est la place Sainte-Claire à Grenoble pour les raisons suivantes :

La place de centre-ville est un archétype de l’espace public urbain, elle est aussi un nœud urbain¹⁴, tout au moins pour le piéton : c’est un lieu de passage - on s’y croise, on s’y arrête - avec toutes les directions possibles. Cette liberté de mouvement est

¹⁰ ibid. p. 97.

¹¹ Pierre SANSOT, *Les formes sensibles de la vie sociale*, Éd. P.U.F., Paris, 1986, p. 44.

¹² Texte non publié. (Cf. J. de la VILLEGLE, *L'affiche lacérée : ses successives immixtions dans les arts*, Éd. Léonardo 2, 33, 1969)

¹³ Au risque d’aller jusqu’à une non-production, un non-sens comme c’est le cas de l’ami de Winter dans *Lisbonne Story* (Wim WENDERS).

¹⁴ “ Les nœuds sont des points, les lieux stratégiques d’une ville, pénétrables par un observateur, et points focaux intenses vers et à partir desquels il voyage. Cela peut être essentiellement des points de jonction, endroits où on change de systèmes de transport, croisements ou points de convergence de voies, lieux de passage d’une structure à une autre.” Kevin LYNCH (1976) in *L'image de la cité*, Paris, Éd. Bordas, p. 55.

accompagnée d'une grande diversité de moyens de transports (voitures, tramways, taxis, vélos et surtout piétons...). Ces possibilités de percevoir un espace en mouvement, à des vitesses différentes, participent de la dynamique de cet espace. Cette place est aussi caractérisée par la richesse des activités dont elle est la scène : halle, marché, boutiques diverses, bars, terrasses, arrêt de tramway, parking, étals extérieurs. L'absence - ou presque - de trottoir, la possibilité de traverser où l'on veut, quand on veut, l'absence de tracé ou de "pré-parcours" dirigeant fortement les pas (barrières, passage-piéton) offrent une liberté de mouvement au citadin, là encore particulièrement intéressante pour la méthodologie des parcours commentés¹⁵. Cette place n'a pas de contours bien définis et autorise donc à toutes les "digressions" - sensitives et motrices - désirées. Elle correspond ainsi à une vision de la ville en accord avec les références écrites de Georges PEREC ou même de Walter BENJAMIN. Enfin, la proximité du lieu d'étude était commode pour sa fréquentation régulière et la mise en place des parcours commentés.

Les limites de la place sont toutes droit issues de ce qui la justifie comme lieu d'étude. Cette place est fortement marquée par l'image de la vieille ville - française -, d'un certain centre-ville, d'un imaginaire de la ville du XIXème siècle.

Le protocole des parcours commentés est le suivant : on donne à chaque participant (peu avant son départ) une fiche protocolaire qui explique l'exercice en insistant sur ses trois axes principaux : la lecture, le cheminement et la description libre : **LIRE, MARCHER, DECRIRE**.

Lire ce qu'il voit, chercher ce qu'il pourrait lire - toutes échelles confondues -, disserter sur le corpus lu ou imaginer à partir de celui-ci, s'en amuser, le commenter, l'analyser etc. ; chaque participant en cheminement libre a carte blanche quant à sa manière de procéder. Il peut s'arrêter, revenir en arrière, ne pas tout parcourir.

Trois *contraintes* sont données, chacune dans un objectif précis :

- tous les participants partent du même point en étant dirigés face à la place. Cet emplacement a été choisi comme étant le plus neutre par rapport à une direction à prendre tout en étant en dehors d'un trajet pratiqué. Il incite donc à se poser la question : par où commencer, partir ?

- la durée conseillée du parcours ne doit pas excéder 30 mn. Ceci afin d'éviter d'avoir des longueurs de commentaires trop différentes. En fait, la taille du texte ne dépend pas principalement de la durée du parcours, mais surtout de la densité de parole du participant.

- l'espace d'investigation est simplement nommé. Nous ne le définissons jamais géographiquement, laissant chaque personne parcourir sa place, chercher ses limites.

Tous les participants sont enregistrés par un dictaphone qu'ils portent à la main (rélié à un petit micro pour obtenir une meilleure qualité sonore). Ils sont accompagnés par l'enquêteur qui, en dehors du rôle d'interlocuteur potentiel, peut ainsi mieux recontextualiser leurs paroles lors de la transcription et de l'analyse des différents corpus. Une autre personne filme ces parcours de façon la plus sobre possible afin de faciliter pour la suite la retranscription des cheminements effectués (pouvoir situer la personne dans l'espace et en rapport à ce qu'il regarde). Un top sonore permet de coordonner le caméscope et le dictaphone. Ce repérage est fondamental pour analyser les relations mises

¹⁵ Jean-Paul THIBAUD, Décrire le perceptible : la méthode des parcours commentés, *L'espace urbain en méthodes*, sous la direction de Jean-Paul THIBAUD et Michèle GROSJEAN, Éd. Parenthèses, (à paraître).

en place autour des cinq phénomènes suivants : **SITUATION, DIRECTION, PERCEPTION, ACTION, DESCRIPTION**. L'échantillon est de douze personnes, choisies principalement en fonction de leurs différents degrés de fréquentation de la place Sainte-Claire tenant compte des variables d'âge et de sexe (6 hommes - 6 femmes). L'objectif n'est pas, après cette phase d'expérimentation, de revenir aux personnes, mais d'obtenir une diversité de séquences de lecture. Cette méthode nous fournit trois types de documents : les parcours tracés au sol à l'aide de la vidéo, les séquences vidéo et les parcours commentés (enregistrements audio).

Face au corpus ainsi recueilli - et saisi¹⁶ -, s'est automatiquement posé le problème de son analyse. Pour cette phase du travail, nous nous sommes directement inspirés de la méthode d'analyse de contenu mise en place par Henri TORGUE et Yves CHALAS¹⁷. Très rapidement il s'est avéré plus riche de s'attacher à des séquences de lecture¹⁸ plutôt qu'au " texte d'analyse " pris dans sa globalité. Pour ce découpage en séquences de lecture, nous avons donc utilisé la méthode de *la table et les ciseaux*, c'est-à-dire une des étapes de cette méthodologie beaucoup plus complexe, qui va jusqu'à des typologies figuratives à partir de la parole habitante. Notre objectif était de révéler des groupes de signifiés, ou séquences de lecture porteuses d'une même signification, au sens large du terme.

De cette analyse trois groupes principaux émergent : **l'espace, les écrits, la lecture** (ou *orientations visuelles*) auxquels venait se rajouter ce que nous avons nommé : **la difficulté de lire et de parler des écrits**.

Après avoir explicité cette difficulté à s'intéresser aux écrits, nous ne présenterons ici que l'analyse tirée du corpus des commentaires en développant les points se référant essentiellement aux notions spatiales.

DE LA DIFFICULTE DE LIRE ET DE PARLER DES ECRITS

" Ce n'est pas une activité ordinaire de dire : " tiens, ce soir, je vais observer ce coin du plafond ". "

Harvey SACKS, Lecture 1. Doing " being ordinary ", *Lectures on conversation*, Vol. II, Éd. by Gail Jefferson, Blackwelle Publisheers, Oxford.

¹⁶ Quelques consignes de saisie apparaissent dans les citations qui suivront :

- [?] quand il y a un doute sur la compréhension lors de la re-écoute.
- [~] quand il y a un doute sur l'orthographe des mots ou sur des morceaux de mots lus *in situ* par le participant.
- Mettre entre guillemets ce qui est lu ou a été lu : " La Dérive ", " 150 Fr "

¹⁷ Yves CHALAS, Espace urbain et parole habitante : analyse figurative des pratiques d'habiter. Eléments de méthode, *L'espace urbain en méthodes*, sous la direction de Jean-Paul THIBAUD et Michèle GROSJEAN, Éd. Parenthèses, (à paraître).

¹⁸ Pierre SANSOT, nous parle lui aussi de cette parole polyglotte (nommée ainsi par Jean-Paul THIBAUD réunissant dans un seul parcours des séquences de chaque texte) : " Quoi qu'il en soit de la valeur de la tentative, lorsque nous avons à exhiber les significations d'une durée collective, il n'est pas sûr que, pour le faire, nous ayons à passer par un récit en quelque sorte linéaire. Les mots, quelques mots plus songeurs que les autres, des segments de phrases, le trouble de certaines phrases, le jaillissement de certaines remarques, des commencements d'images qui ne veulent pas aboutir nous paraissent les plus à même de faire entendre et comprendre le mystère des rêveries collectives, ces rêveries qui, à notre manière, expriment admirablement notre temps ". Pierre SANSOT, *Les formes sensibles de la vie sociale*, Éd. P.U.F., Paris, 1986, p. 62.

Face à la méthode des parcours commentés orientés sur les écrits dans la ville, les participants ont manifesté quelques difficultés liées à l'essence même de cet exercice, à savoir : **lire, parler des écrits, décrire l'ordinaire, voire son propre ordinaire, *in situ*...**

- *Je dois vraiment lire ? Si je vois "Prisunic", je dis "Prisunic" ?*

• Lors de la 1^{ère} phase avant parcours, le participant lit la fiche protocolaire et complète son information par d'éventuelles questions à l'enquêteur. Cette prise de contact déclenche chez certains participants une réelle appréhension devant l'expérience du parcours. La présence de la caméra suiveuse et le fait de parler au dictaphone (par le biais d'un micro indépendant pour certains) ne posent, eux, apparemment aucun problème. C'est, semble-t-il, la peur de ne pas avoir compris l'objet étudié - l'écrit ordinaire - qui est à l'origine de cette appréhension.

• C'est surtout au cours de la 2^{ème} phase de l'exercice - le déroulement du parcours commenté même - que se manifestent les difficultés qui nous intéressent le plus, à savoir : les difficultés de lire et/ou de parler des écrits. Certaines fois, l'accompagnateur doit relancer ou ré-orienter le participant sur les écrits. Et dans certains cas, c'est une incapacité à faire cet exercice de lecture qui prend le pas sur tout le reste, entraînant un énervement, une accélération et, en général, un arrêt rapide de l'exercice.

• Après le parcours, lors de la discussion et de la re-mémoration, autour d'une table (3^{ème} phase de l'exercice), les commentaires des participants varient entre un intérêt réel (ou tout au moins ludique) pour le corpus ainsi mis en valeur et une totale incompréhension. L'apparente banalité de ces écrits et/ou la prétendue inutilité de cette lecture sont alors les seuls éléments pris en considération.

On l'a dit, les difficultés les plus intéressantes à souligner pour nous sont celles que le parcours lui-même provoque. Elles sont en effet directement liées à l'essence même de l'exercice, à savoir : lire et parler des écrits *in situ* (Parler de l'ordinaire n'est pas ordinaire nous rappelle Harvey SACKS). L'écoute des enregistrements audio, la phase de re-mémoration puis la saisie des parcours, et surtout le découpage de ce corpus ont permis de les répertorier. On en distingue principalement sept :

1 • Qu'est-ce que je peux lire ?

Le corpus des écrits *in situ* est soumis à deux modes inhérents l'un à l'autre : **l'interrogation** (*Est-ce que ceux-là font partie des écrits à lire ?*) et **l'exclusion** (*Non, ceux-là n'en font pas partie !*).

- *Tiens, ça c'est un journal. Non les journaux on s'en fout ?*

- *heu, ouais... Je ne sais pas si c'est franchement ça que...*

- *Il y a surtout des prix là, je ne sais pas si c'est...?*

2 • Qu'est-ce qui est bien à dire/lire ?

Certaines personnes cherchent ce qui est intéressant à lire, donc à dire. Le jugement d'intérêt, ainsi que le désir d'être pertinent dans leurs commentaires, prennent alors le pas sur une lecture et des remarques plus spontanées. De longs silences caractérisent en général cette attitude que l'on retrouve par exemple chez Arnaud et Marie-Odile.

- *C'est-à-dire que je lis des tas de trucs, c'est...*

- *E. : Il n'y a pas grand-chose qui t'inspire ?*

A. : Pas vraiment...

3 • Problème de frontière entre écrits verbaux et écrits non verbaux, visibles et lisibles.

Les graffitis, les tags, les signatures, sont reconnus sans problème par les participants comme faisant partie du corpus des écrits du site (ils les remarquent et les citent). Pourtant, aucun d'eux ne fait *l'effort* de déchiffrage, les considérant tous comme étant de l'écrit, mais de toute façon illisibles. Seul *Philippe*, et dans un contexte totalement différent, a cherché à déchiffrer, après l'avoir recherchée, une signature au bas d'un tableau (vitrine d'une galerie d'exposition).

- *Un mur de briques blanches et rouges on voit des espèces de signes rien de..., des espèces de signatures de personnes voilà.*
- *Et puis quelques gribouillis sur les, sur les... sur les murs quoi... mais qui restent assez discrets*

Par ailleurs, les objets ou tracés municipaux symboliques (panneaux de signalisation, feux tricolores, feux pour le tramway, tracés des places de parking sur le sol...), du fait de la valeur symbolique dont la communauté les a investis, sont parfois intégrés au corpus des écrits. Leur message est instantanément déchiffré et n'entraîne aucune rupture de lecture lors de certaines séquences :

- *Là-bas je vois un panneau heu... de signalisation heu, " zone marché " alors c'est le " mardi mercredi jeudi vendredi samedi dimanche " et en-dessous il y a " horodateur " et re-panneau sens interdit dans le même sens.*
- *et puis ça répète, un " horodateur ", " Parking payant " (en fait " P stationnement payant ") bon, c'est en rouge, ça doit-être plus cher.*

4 • Substitution du mot vu par son équivalent générique.

Il s'agit de la substitution de l'écrit reconnu comme tel par son nom générique : on parlera de journal au lieu de nommer celui que l'on désigne, d'enseigne du magasin de tissus au lieu de "La Fée" (ce qu'on lit), d'affiches, de publicités, etc. On voit une affiche, on ne lit pas forcément son contenu, ou du moins on ne l'oralise pas. Sans doute cela correspond-il à une association, une catégorisation, à une généralisation, beaucoup plus qu'à une lecture alphabétique.

- *Voilà, là un bureau de tabac avec ses heu, publicités ses panneaux en dehors... les journaux actuels...*

5 • Les commentaires tournent parfois à la description esthétique (voire architecturale, historique...) et sociale du lieu.

Il est plus intéressant pour certaines personnes de parler des qualités ou non de la halle, de telle façade, de la présence des palmiers... que des écrits ordinaires. Même après plusieurs interventions de l'enquêteur pour ramener le champ d'observation aux écrits et à leur lecture, les participants reprennent assez vite le chemin de la description du site. Ce point rejoue aussi celui concernant une lassitude entraînée par l'acte de lire, d'être attentif de manière soutenue à ce qui n'est pas à priori digne d'attention.

- *Alors des halles apparemment assez anciennes, du siècle heu, début du siècle je pense...*
- *Des palmiers ! Tiens des palmiers à Grenoble sur des places...*
- *Après je vois encore d'autres magasins. La place est toute pavée... Quelques passants... Une rame de... comment ça s'appelle, de tram, le tramway de Grenoble... Par contre en face, quelques beaux magasins avec des... jolies devantures dont celle de tissus. Voilà des beaux immeubles.*

Pour les commerçants de la place, cette attitude est inséparable de leur espace vécu, de leur parole d'habitant : *l'occasion de parler de leur place est trop belle*. Ils adoptent, on le voit par ailleurs lors de l'analyse vidéo, des postures proches de la contemplation

panoramique interdisant par elle-même une lecture de proximité, certaines découvertes devenant quasi impossibles.

6 • Une lassitude apparaît chez certains participants liée à cette difficulté de lire un corpus apparemment banal, ordinaire, et par là-même juger ne rien en dire d'intéressant, d'avoir la sensation d'être à côté de ce qui est demandé. Cette fatigue est accentuée par la recherche constante de pertinence pour certains sur ce qui est à lire. Cette lassitude se révèle par une accélération de la marche, puis souvent par un arrêt assez rapide de l'exercice : de 6 à 7 minutes au lieu des 15 aux 20 minutes habituelles.

- *Ben en fait il y a énormément de magasins, alors il faut les citer tous.*

La troisième phase (discussion, re-mémoration) s'avère elle aussi très brève :

- *Ce n'est pas encore fini ? On ne va pas encore y revenir !*

7 • Enfin, on suscite même un énervement certain chez quelques personnes. Enervement lié à un fort scepticisme quant à l'intérêt de cette expérience. Il se caractérise soit par le besoin de dialoguer constamment avec l'enquêteur sur le bien-fondé de ce parcours et sur la pertinence ou la non-pertinence des commentaires, soit par le fait que l'exercice est alors pris *au pied de la lettre* (dans tous les sens de l'expression) : la réaction après cette phase de scepticisme consiste alors à pratiquer une lecture quasi automatique de tout ce qui passe sous les yeux.

- *Bon écoute, "Bétina", il faut que je lise "Mistral", "Oxbow", "Copinet photocopies", ...*

- *Je regarde encore "on y va", après je relève la tête "la Maison des Couleurs". Je revois "Zone de marché" que j'ai vu tout à l'heure... encore un graffiti cette fois sur le camion blanc. Je vois "P35D" qui est marqué ici. "Décoration - peinture" graffité, "A vendre" en rouge. "Pousser" et avec "Tirer" à l'envers. Je vois "Bar", "Zone de marché". Je regarde "Ibiza". "Fiat" derrière.*

L'ESPACE DE LA PLACE

Les écrits dans l'espace public urbain sont des aides majeures à notre orientation : orientation autant *pratique* (géographique même) que *symbolique* (comme on le verra dans la partie suivante : *Rapport lecture en rapport à des espaces plus personnels*). Les écrits servent à tisser des liens spatiaux et temporels à partir du vécu du citadin. La frontière entre l'une et l'autre dans les commentaires des parcours séquences de lecture est parfois plus ténue. C'est l'orientation urbaine - pratique -, plus classiquement reconnue, qui est entendue dans cette appellation *d'espace de la place* par rapport à *l'espace de SA ville*, plus proche des *Espèces d'espaces*¹⁹ péricquiens.

Une des consignes sur la fiche de départ est de *parcourir la place Sainte-Claire en cheminement libre*. La question des limites de la place alors se pose pour certains, et cela presque indépendamment de leur pré-connaissance du lieu. Chacun construit un peu la sienne par son tracé, comme on le voit dans les différents relevés sur le plan - "Marcher c'est construire du lieu" nous dit Jean-François AUGOYARD dans *Pas à pas*. Ainsi les écrits institutionnels de type municipal (les plaques des noms de rue, de place, les

¹⁹ " L'espace de notre vie n'est ni continu, ni infini, ni homogène, ni isotrope. Mais sait-on précisément où il se brise, où il se courbe, où il se déconnecte et où il se rassemble ? " Georges PEREC, *Espèces d'espaces*, Éd. Galilée, Paris, 1974.

numéros pairs ou impairs au-dessus des portes²⁰, les noms des arrêts de tramway, de bus, etc.) ont des fonctions spécifiques pour les participants quand ils cherchent à délimiter leur terrain d’investigation. Ces délimitations, presque méthodiques pour quelques-uns, rejoignent des points notés en première partie sur la difficulté de parler des écrits : lorsqu’ils auront *détouré* cette place, l’exercice sera enfin terminé ! Ces tracés correspondent souvent à des trajectoires possédant un dessein propre, plus qu’à un cheminement de type déambulatoire.

On peut distinguer quatre types d’écrits dans notre corpus selon le rapport qu’ils entretiennent avec l’orientation et l’espace. Le rôle des écrits à caractère plus informatif et institutionnel s’illustre tout particulièrement dans les deux premiers types. Les deux autres font davantage appel aux réalisations qui ont un fort caractère public pour le premier, des propriétés spatio-temporelles en rapport au vécu pour le dernier.

1 • Direction

Les écrits, essentiellement municipaux, dont la première fonction est d’indiquer “une direction pour aller vers...”, nous mettent aussi en relation avec “cet autre lieu” désigné. Ils se présentent sous la forme de panneau orienté, d’un nom avec une flèche ; ils sont parfois complétés par des indications kilométriques ou par le type de moyens de transport auquel la voie est dévolue (vélos, piétons, poids lourds, voitures)

Désigner cet autre lieu est le rendre présent et ces écrits font qu’une relation - autant spatiale que temporelle - s’établit entre ce lieu et le sujet :

- *Une voiture... En fait on n'est pas très loin du musée, là je vois le panneau...*
- *Je vois une flèche..... “Place Sainte-Claire”, ben elle continue tout droit.*
- *Le “Musée de Grenoble”, alors en fait, si on suit cette place et qu'on continue heu en direction des lignes de tramway, on tombe sur le musée de Grenoble...*
- *Voilà... Je vois en indication le “Musée de Grenoble” donc il ne doit pas se trouver très loin...*

2 • Savoir où on est

La ville possède ses propres coordonnées, inscrites sur ses murs même. Ce sont les plaques au coin des immeubles portant le nom des rues, des places. Ce sont les numéros pairs ou impairs au-dessus des portes, les noms des stations de bus, de tramway, enfin, les noms de magasins, de bars, de restaurants, qui composent parfois avec celui de la rue, de la place, du quartier : “bar Sainte-Claire”, “Halle Sainte-Claire”, “Pharmacie Sainte-Claire”. Cette appartenance des écrits au lieu lui est devenue quasiment intrinsèque. *Il n'y a pas de numéro 5 et pourtant il y a le 3 et le 7! ...* Les rues étant conventionnellement nommées, quand une plaque n’y est plus, il doit nécessairement y en avoir une à l’autre carrefour. D’ailleurs, pourrait-on avoir une rue sans nom ? On situe et on dénomme bien par des subterfuges celles dont on ne connaît pas l’identité municipale : c’est la rue du cinéma, là où habite Philippe Borsoi, à gauche à l’angle de la rue Thiers et du cours Berriat ; pourrait-elle finir par s’appeler la rue-sans-nom ? L’absence (indicative) d’une des coordonnées est perçue comme étant anormale (comme tout système normé perdant ses indicateurs d’ailleurs). Ces écrits, aux différentes échelles de la cité (numéro, rue, quartier, ville), nous disent constamment : On est là ! et son corollaire On n’est plus là !

²⁰ Et d’ailleurs, “13 bis, est-ce un nombre pair ou un nombre impair ?” Raymond QUENEAU, *Le vol d’Icare*, Éd. Gallimard, Paris, 1968.

- “Place Sainte-Claire” toujours l’enseigne. Donc je suis bien place Sainte-Claire...
- “Voie piétonne” alors là, je suppose que la place Sainte-Claire n’est plus là, là je revois “Place Sainte-Claire” à droite. “Rue Pierre Duclot” donc on s’arrête là. “Place Sainte-Claire” ...
- On arrive bientôt... “Rue Auguste Gaché”, mais on n’y est pas encore !
- “Rue Hache” donc je suppose que c’est plus la place Sainte-Claire, et là on retourne avec le panneau qu’il y a au-dessus. (Plaque de la place)

3 • Dire où on est

Savoir où on est n’est pas *dire où on est*.

Lorsque l’on donne rendez-vous dans la rue à quelqu’un de manière précise, on désigne souvent cet endroit par le nom du magasin, du bar qui s’y trouve, et non par le numéro de rue correspondant : *Rendez-vous en face du café de France...* ou *j’habite à côté de tel cinéma...* Nous nous sommes déjà tous retrouvés à téléphoner à quelqu’un pour qu’il vienne nous chercher. Pour désigner l’endroit où se situe la cabine, nous regardons alors autour de nous à la recherche d’une enseigne (magasin, bar), la plus visible possible, afin de fixer le rendez-vous, même si l’on connaît le nom de la rue. Cet écrit est alors très utile et fonctionne comme un indice de publicité autant par sa visibilité que par le degré de reconnaissance qu’il peut avoir chez les habitants d’une ville. C’est l’exemple de la Fnac ou pour une classe d’habitants particulière, tel magasin branché, tel ancien lieu de rendez-vous, etc. Par là-même, on retrouve ce qui fonde aussi la publicité d’un lieu, au sens défini par Hanna ARENDT : l’espace public est d’abord un espace de visibilité (accessibilité perceptive). Ainsi le nom d’un espace statutairement privé peut devenir public par son enseigne (ou même sa plaque, aussi petite soit-elle, comme c’est le cas des ambassades, espace on ne peut plus privé pour le citadin), ou juste par une dénomination communément admise et connue.

Lors des parcours commentés, les participants expriment souvent le besoin de se situer dans la place. Ils emploient alors une préposition qui leur permet de se situer par rapport à un objet lu : *je suis devant le “café des Halles”, je t’attends en face de “la Forêt Noire”* etc. En se situant ainsi dans la place, le sujet se restitue dans le commentaire, et s’identifie comme étant lui aussi du lieu.

- Là je suis au bord d’un abri tram, il y a juste une personne qui attend, mais bon... c’est l’arrêt “Sainte-Claire les Halles” ...
- Bon là nous nous trouvons devant “Sainte-Claire” là c’est “le Halle” c’est écrit “Halle de Sainte-Claire” au-dessus de la fontaine...
- Là je vais passer devant les... “Halles de la place Sainte-Claire”.

4 • Retrouvailles

Par retrouvailles nous entendons le fait de revoir / de relire un écrit déjà vu / lu. Cette relecture peut être perçue selon deux modalités très différentes : celle du **vécu** (et là, on rejoue l’espace de vie du citadin, *l’espace de SA ville*, du vécu, tissant des liens spatio-temporels propre à sa personne) ou celle de **l’orientation retrouvée**, en général heureuse lorsque l’on est perdu, d’où le terme de retrouvailles. Chacune nous dit de manière distincte : **ça je l’ai déjà lu / vu à tel endroit** (pratiqué, symbolique, pictural, cinématographique, etc.) et **ça je l’ai déjà lu / vu à cet endroit** (pratiqué, ou associé comme tel par erreur).

Le premier cas correspond aux liens que l’on peut tisser par notre vécu, vécu se référenciant non seulement au vécu de citadin, mais aussi à l’ensemble de notre *être* : réel, imaginaire et symbolique.

Le second, repère pour une orientation spatiale, nous indique que là, on y est déjà passé. On a tous fait l'expérience, lorsque l'on se promène dans une ville inconnue, de se dire après avoir reconnu tel écrit : ah ! mais si, je suis déjà passé par là. Il suffit pour cela de marcher dans la rue sur un trottoir différent, ou dans le sens contraire, ou d'arriver par une rue adjacente, de rêver, de regarder à gauche plutôt qu'à droite, d'être à pied au lieu d'être en voiture, qu'il fasse nuit après être passé de jour, de passer aujourd'hui puis dans dix ans, etc. Nous effectuons ainsi des repérages d'un ordre totalement différent de ceux de nature plus cartographique (nom des rues, des carrefours, des quartiers...). La forme, la couleur, la *saillance*, voire la *prégnance*²¹ du nom lu, le degré de visibilité que l'on y associe par sa réceptivité jouent là aussi sans aucun doute un rôle primordial.

Une autre situation-type, où ces deux catégories de "Retrouvailles" se mélangent, est la prétendue reconnaissance d'un lieu. On reconnaît telle enseigne de magasin, ce qui nous donne l'impression de nous resituer alors qu'il s'agit d'une autre boutique de la même chaîne de magasins. Les lieux sont donc bel et bien différents et notre soi-disant point de repère est un "faux" qui conduit plutôt à l'errance...

Le corpus des parcours commentés ne met pas bien en valeur ces "retrouvailles" à l'échelle de la ville. Par contre, à l'échelle de la place, on trouve quelques (re)lectures. Elles ne sont toutefois pas vraiment liées à une (ré)-orientation ; et parce qu'ils n'aiment pas avoir le sentiment d'être redondants, les participants les évitent.

- "Mayet" ça je l'ai déjà vu tout à l'heure.
- Je revois "place Sainte-Claire"
- Je revois "Vanne gaz" que j'ai déjà vue tout à l'heure...

PAROLES D'HABITANTS

... aller et marcher, se laisser travailler par le cheminement, les objets croisés et les vides autant que soi-même les travailler.

Le présent du promeneur et de la ville est un présent discontinu, soumis aux chocs de la promenade qui vague entre fantasmagorie et archéologie de ce présent qui situe la modernité.

Olivier RATOUTI, Le sens de la marche, dans les pas de Walter Benjamin
- Le livre des passages, in *Les Annales de la recherche urbaine*, n° 57-58, pp. 70-81.

L'espace de SA ville et la parole d'habitant sont deux thématiques étroitement liées. Aussi la frontière entre celles-ci pour certains commentaires est très ténue. Elle devient même, parfois, impossible à situer, lorsque la phrase, les phrases se font discours, n'ayant sens alors justement que dans leur intégralité. C'est le cas des commentaires des commerçants de la place (*Yves, Martine*), où leurs histoires participent de l'histoire du lieu dans une temporalité et une action plus forte que celles du citadin pris dans son individualité en général. Les commentaires souvent d'ordre contextuel, reflets de leur

²¹ Les termes de *saillance* et de *prégnance* sont empruntés à René THOM, dans : *Esquisse d'une sémiophysique, Physique aristolélicienne et Théorie des Catastrophes*, Éd. InterEditions, Paris, 1988. "Alors que les formes saillantes peuvent avoir un certain impact sur l'appareil sensoriel d'un sujet (on peut être ébloui par un flash de lumière), cet effet demeure transitoire et de courte durée. De même les formes saillantes s'inscrivent dans la mémoire à court terme, mais elles n'ont pas d'effet à long terme sur le comportement du sujet (humain ou animal) ni sur son état physiologique. Il en va autrement de certaines formes qui ont (chez l'animal) une signification biologique ; telles sont les formes des proies pour le prédateur (affamé), ou le prédateur pour la proie, le partenaire sexuel en période appropriée... La reconnaissance de ces formes suscite une réaction de grande ampleur chez le sujet : libération d'hormones, excitation émotive, comportement d'attraction ou de répulsion à l'égard de la forme inductrice. J'appellerai prégnantes ces formes, et prégnance ce caractère spécifique."

vécu quotidien, sont eux aussi indissociables de cette parole d'habitant, de leur ville, de leur place.

L'exercice même du parcours commenté, orienté sur les écrits, entraînant une parole d'habitant riche et reconstituant un lieu par l'anecdote, le jugé et la diversité des points de vue, nous permet d'établir quelques classes faisant appel à ce vécu de citadin, à ces espaces vécus, *pratiques, symboliques*, espaces autant hétérogènes²² que discrets comme il a déjà été si souvent montré. Les écrits y participent eux aussi.

1 • C'est un lieu que je connais

C'est l'exercice du parcours commenté orienté vers les écrits *in situ* qui sert d'embrayeur à cette parole, à ces souvenirs, plus que les écrits en eux-mêmes. Ils rentrent en compte pour la dénomination du lieu, du magasin, ou d'une connaissance retrouvée, re-mémorée. Il s'agit ici de la même thématique des *retrouvailles* avec un espace pratiqué : "je me rappelle l'avoir déjà lu / vu" faisant nécessairement appel au vécu avec lequel la frontière est des plus poreuse.

- *Il loue des vélos ce magasin, mais il les loue très très cher. Avec Karim heu, on voulait en louer un et... (pff) ils coûtent au moins 150 francs la journée je crois.*

Les *retrouvailles* peuvent être d'un ordre plus *symbolique*, par une pré-connaissance de l'objet cité. Certains écrits, le nom du lieu "Place Sainte-Claire", tel nom sur une affiche, etc offrent des prises aux associations, souvenirs, anecdotes, moments vécus, que l'on ait ou pas déjà pratiqué le lieu (en train d'être) parcouru.

- "On y va", qu'est-ce que c'est ça ?... "Objectif Grenoble" ... "Grenoble Objectif 95" *Souvenir des Municipales.*

- Alors là c'est la fameuse "Halle Sainte-Claire" qui a été refaite il y a pas longtemps..... J'ai travaillé dans une société qui avait fait toute l'électricité, donc c'est pour cela que je suis un petit peu au courant.....

On établit un rapport des écrits au lieu par le diptyque : *Je connais / je ne connais pas*. Ce rapport au lieu est accentué par l'exercice même du parcours : celui-ci est orienté vers les écrits et implique une plus grande attention au site. La lecture des écrits de l'espace public urbain offre un mode de reconnaissance propre au langage.

Parfois, c'est la (re)lecture d'un écrit qui nous indique cette connaissance, ce "j'y suis déjà allé", indépendamment d'une identification plus architecturale ou sensorielle : "ah mais si je connais bien..." - Identification d'un lieu pratiqué par la (re)lecture d'un nom. Là aussi, nous sommes dans la catégorie des *retrouvailles*.

- Ah ! J'avais pas vu, il y a une heu... une école pour apprendre l'anglais. Tu savais qu'il y avait un truc là ?

- Alors "Soltiss ameublement" ça je connaissais...

Appropriation qualificative, paroles d'habitant à part entière, il s'agit de qualifications personnelles concernant généralement des magasins, *j'aime / je n'aime pas* (suivi parfois d'un vécu, d'une opinion) :

- Ah ! là, mon magasin préféré, ... mon magasin préféré "Yedo". Alors là cette boutique évidemment qui fait rêver, qui est complètement inabordable...

²² (...) l'espace perçu par l'habitant ne peut être qu'un espace déformé, non newtonien ; c'est à dire discontinu, hétérogène et hétérotope, en remplaçant la forme et le lieu en rapport à chaque individu, à son quotidien, face aux représentations conventionnelles." voir Yves CHALAS in "Le sentiment d'appartenance", *Information sociales*, n° 45, 1995, p. 28.

Ici la frontière avec les interprétations (matière, sens, associations) est parfois là aussi très floue.

2 • Ecrit et objet de recherche

Des liens entre connaissance et localisation se tissent lorsque la connaissance d'un écrit précède la vision sur son support *in situ*. Les formulations peuvent prendre la forme du type : "Je cherche tel restaurant, on m'a dit..." ou "je savais, qu'il était dans le coin".

- "L'os à moelle" "tous les soirs" ça me dit quelque chose, je connaissais, mais je ne savais pas où c'était.
- Tiens je cherchais cette rue, j'ai une copine qui m'en a parlé de la "rue Auguste Gaché", je crois qu'il y a un super traiteur là-bas... Je m'en rappelle plus, oh c'est pas grave de toute façon...
- C'est chouette,... "La Bibliothèque" ... A vrai dire j'aurais pas remarqué si je ne connaissais pas, je crois...

3 • Connexion ordinaire

La lecture d'un écrit peut nous faire relier des lieux différents. Ainsi telle affiche que l'on a vue et qui est aussi en bas de chez nous, telle chaîne de magasin dont le nom se retrouve en différents lieux.

- Ah ils ont plein de journaux, je ne savais pas qu'ils, qu'ils avaient autant de journaux étrangers ici. Je pensais qu'on trouvait que des trucs, heu, à la gare.
- Et là, alors l'heure des levées "Isère 15h30" tiens c'est comme dans mon quartier, c'est bizarre, je pensais qu'ils décalaienst selon les quartiers, mais ils doivent tout... hum...

4 • C'est un lieu que je construis

Pour les parcours des deux commerçants de la place, les commentaires recueillis montrent une difficulté voire une impossibilité à séparer sa parole d'habitant de l'exercice de lecture. Les écrits ne sont oralisés qu'à partir du moment où ils sont accompagnés d'une anecdote ou qu'ils se remarquent par une ou plusieurs particularités visuelles : taille, couleur, hauteur, forme.

M. : (ils) viennent salir en fait les murs qui appartenaient à tous ou alors les abris bus et dès que, qu'un jeune vient, vient coller sur un abri bus un....

S. : Sa griffe ?

M. : ... oui enfin une affiche voulant vanter un concert, un truc comme ça. Elle ne reste pas plus de cinq minutes parce que le monsieur arrive à toute vitesse et l'enlève aussitôt.

S. : Après il y en a une ici, regarde.

M. : Et c'est dommage parce que... Ah non mais il ne traverse pas. Mais c'est dommage parce que parfois il y en a qui sont très très jolies. L'autre jour, il y a un jeune qui collait des affiches et il les coloriait à mesure. Donc plein de couleurs, et les affiches étaient imprimées, un rose, un vert, un bleu... Il les plaçait comme cela en donnant une forme harmonieuse. Et heu, le, le donc le commerçant en question lui a dit de toute façon ne perd pas ton temps, dans moins de cinq minutes elles sont parties. Il a dit oui, mais si j'en mets plus, ça vous emmerdera un peu plus longtemps. Donc il y a eu cette espèce de... de rivalité. Et effectivement dès que le jeune a été parti, le commerçant est venu arracher ces affiches qui défiguraient pas du tout, qui étaient même très jolies.... Voilà, ça c'était l'histoire du quartier.....

Ces particularités sont d'autant plus mises en valeur qu'elles donnent lieu à une comparaison avec leur magasin, leur statut de commerçant dans la place. L'exemple le plus frappant est le regard technique que posent *Martine* et *Sylvie* sur les enseignes des boutiques. C'est aussi *Yves* qui commente la répartition des magasins franchisés, concentrés sur le trottoir en face de sa librairie.

(...) De "l'Express", et qui va jusqu'à, heu, pratiquement on est déjà rue Pierre Duclot, mais jusqu'à Brun, qui est le fleuriste, et y a un style de commerces en face, qui sont des petits commerces, qui sont ramassés dans une architecture qui est plus ancienne, qui est moins vaste que celle de ce côté-là, du XIXème... et qui sont des petites boutiques, ramassées, qui ont, qui sont originales parce qu'elles sont toutes indépendantes les unes des, elles sont toutes indépendantes je veux dire dans le sens où il n'y a pas de franchise, ce sont des commerçants indépendants, mis à part les ducs de Gascogne. Ce sont des gens qui sont depuis longtemps sur la place et qui... dans l'ensemble marchent bien, c'est un commerce qui est très varié, on trouve un café, une librairie, porcelaine, fleuriste enfin.... et comment dire, pour moi, c'est la vie. Et c'est le soleil levant là, ce côté-là, c'est le soleil levant et c'est très important parce que, on sent que, enfin on a toujours dit, j'ai toujours entendu dire, et moi je le constate depuis que j'y suis, que le, comment dire, que le trottoir qui marche le mieux, commercialement parlant, et puis, pas uniquement ça parce que il y a un cheminement qui se fait beaucoup plus de ce côté-là, je sais pas parce c'est quand-même le, on est un peu, en étant ici de ce côté, on est en sortie de ville, alors que là-bas c'est l'entrée de la ville. C'est vrai que c'est la façade, c'est le, l'endroit qui me fait entrer rue Jean-Jacques Rousseau, rue Pierre Duclot, et on s'enfonce dans la ville. Alors qu'ici on est un peu en sortie de ville, on va vers l'extérieur.

LES ORIENTATIONS VISUELLES

Lentilles vert émeraude
 Au marché je lis
 Lentilles vert émeraude
 je reviens sur mes pas
 et je lis
 Lentilles vertes Eure-et-loir
 une troisième fois qu'aurais-je lu
 je ne sais pas

Raymond QUENEAU, *Courir les rues*, Éd. Gallimard, Paris, 1965

La lecture *in situ* des écrits dans la ville mobilise le marcheur au niveau perceptif par des modes d'attention particuliers. On est dans le registre du sensori-moteur et la relation perception / action intervient autant au niveau des espaces *pratiques* qu'au niveau d'espaces plus *symboliques*. Dans cette partie, nous nous intéresserons à la concrétisation de ce rapport, perception / action, mis en œuvre par les parcours et observable à partir des commentaires des participants ; et ceci en dehors de toute interprétation de contenu. Nous nommerons ces séquences de lecture des *orientations visuelles* ou *perceptives*. Ce repérage, à l'intérieur de notre corpus de commentaires, est aisément : la re-contextualisation est facilitée par la présence de l'enquêteur lors du déroulement de ces parcours, couplée à l'analyse des tracés et des séquences vidéo.

Ces orientations perceptives peuvent être de natures différentes, les principales étant d'ordre essentiellement pratique : balayage, évènement entraînant la lecture, etc. D'autres sont directement liées aux goûts personnels du lecteur. L'intention, l'accroche est, dans ce cas, le moteur du mouvement : exemples du zoom, de la focalisation (intérêt → lecture), de la plongée, des différentes recherches, etc.

1 • les balayages.

La figure de base est la lecture *in situ* d'un écrit :

- Je lis "Pas une seconde à perdre je n'ai jamais vu le tour du ciel" sur une affiche collée sur le mur en face de chez moi.

Une des orientations visuelles suivantes, base élémentaire commune à de nombreuses autres, est le passage de la lecture d'un écrit à un autre : un balayage (ou enchaînement).

Ces balayages sont de trois types :

- 1 • linéaire (ou directionnel)
- 2 • circulaire (ou plus exactement surfacique)
- 3 • sphérique

A chacun de ces types correspond, en schématisant, une des dimensions spatiales : la ligne, le plan, le volume. Le temps, quatrième dimension, est intrinsèque à la notion de balayage (idée de successivité). D'autres dimensions (d'ordre personnel, social, sensoriel) entrent en compte au plan bien sûr de la réception, de l'interprétation et du vécu.

Les balayages de type linéaire

Il s'agit de l'enchaînement de base : le passage d'un écrit à l'autre. On peut le symboliser par une droite orientée reliant un écrit à l'autre dans le sens de la lecture, la lecture impliquant nécessairement une "succession". C'est une sorte de balayage visuel orienté. On distingue deux façons de combiner les enchaînements linéaires : la catégorie et l'échelle.

• La **catégorie** : c'est la lecture enchaînant les noms de magasin d'une rue, par exemple, quelles que soient leurs différences de tailles, de formes, ou, de ce qu'on peut considérer comme des différences de visibilités, seuls sont pris en compte les écrits "lisibles".

- "*Tabac Presse*" heu, "*Maroquinerie*" heu "*Conty*", *là-bas un café*.
- *Bon, ben, moi les écrits là, quand je regarde.... pour moi il y a un , qui part du café (...) De "l'Express", et qui va jusqu'à, heu, pratiquement on est déjà rue Pierre Duclot, mais jusqu'à Brun, qui est le fleuriste*
- *Voilà, je vois une "pharmacie", un magasin qui s'appelle "Cinna", "Librairie la Strada" ... en face les "Ducs de Gascogne" ... "Pressing", "Torréfaction Dessertine", "Parfumerie" une grande parfumerie qui fait un angle. "Institut" "Lingerie" et en face une "bijouterie".*

S'il est possible d'établir que la lecture de certains écrits se fait en respectant une "catégorie" (tous les noms de magasins), très vite l'échelle et le degré de visibilité d'autres écrits, qui n'appartiennent pas à cette catégorie, viennent interférer avec cette lecture. Un écrit de même taille autre qu'une enseigne de magasin peut être englobé dans une suite de lectures.

• L'**échelle** : il y a dans ce cas lecture par enchaînement de type linéaire (directionnel) d'écrits de même échelle. Ainsi telle publicité sera citée au milieu d'une liste de noms de magasins, et telle boutique, à l'enseigne plus petite donc moins lisible sera sautée ou remplacée par une description plus visuelle ("la boutique à l'enseigne rouge", "le magasin à l'angle") ou par une identification symbolique ("le magasin de tissus", "le bar").

- *Alors là... "halle Sainte-Claire" ... Là je vois un camion "dépannage dans la journée" "7 / 7" ... Un magasin qui va fermer une "maroquinerie", "Tabac" "Dauphiné" "Journaux", des cartes postales... "Express Bar", "Librairie la Dérive".*

Les balayages de type circulaire (surfacique)

Certains balayages s'effectuent sur une zone plus matérialisée, plus localisée que ceux dits linéaires. Un balayage surfacique correspond à une lecture des écrits présents

sur une surface offerte, un objet désigné. C'est le cas lorsque l'on regarde une vitrine de magasin, où le regard passe d'un écrit à l'autre sans trajectoire et sans orientation définies. On peut passer d'un écrit en bas à gauche à un autre au milieu, puis revenir à gauche, et passer en haut à droite, etc.... Les notions de catégorie et d'échelle, semblent peu entrer en compte lorsque l'on *passe* ainsi *en revue* une surface. On peut le voir avec l'exemple du distributeur de Bubble-Gums chez *Claire* :

"introduire une pièce de 1 Fr. " "Bubble gum". Il y a quoi comme parfum ? "Orange", "Pomme", "Coca-Cola", "Fraise", "Framboise", "Mangue", "Citron", hum, fraise. "Crackies chewing-gum". "Conformité aux normes garanties par l'importateur".

Et encore chez *Patrick* :

là on voit la "voie piétonne", il y a un grand panneau "voie piétonne" vert [inaudible] avec une affiche "Fa", "Fadela Saraoui" ... Voilà... en-dessous le panneau indique la "réglementation" de, de l'entrée,... des heures.

L'utilisation du mot *circulaire* correspond symboliquement au balayage en lecture de la surface observée. La réalité est plus proche d'un ensemble de droites entremêlées passant sans logique géométrique simple d'un écrit à l'autre sur cette surface, cet objet.

Les balayages de type sphérique

Lorsque l'on recherche un ou des écrits par exemple, nous effectuons des balayages de type sphérique. Le terme de sphérique contient la notion d'espace à trois dimensions. Nous sommes au centre de la sphère, au croisement des repères. Le balayage se fait dans toutes les directions de l'espace qui nous entoure. Ces types de balayages sont des suites de lectures que l'on peut qualifier comme étant tous azimuts en termes de direction, d'échelle dans le passage d'un écrit à un autre. De même, au niveau du contenu et si l'on considère la variété des catégories abordées, ces balayages correspondent à ce qu'on appelle en langage courant *passer du coq à l'âne*. Olivier en donne de nombreux exemples :

- "Librairie la Strada" là je vois aussi "Un art de vivre" juste à côté pour le magasin. "Je trie" pour la poubelle. Un graffiti qu'il y a sur le mur aussi. "Payant ticket",...
- Alors "Bar des halles", "Apache", "Relais des caves", ... "place Sainte-Claire" toujours.... "Chaussures" ... "Route barrée" ... "voilages rideaux" "vendu". "A7 729" ça c'est la plaque de la voiture.

Ou encore avec *Franck* :

- Du "lapin". "Fermeture annuelle - ouverture le 27/7/96". Une affiche pour un cheval "Le quatter Horse" [~]. "Horodateur", en très gros le bouton "Annulation" A nouveau cette pancarte "Zone de marché" ...
- "Institut médico professionnel les Gentianes 2ème étage" pas très clair... Une "Vanne de gaz" ... "V.T.T., vente, location, réparation, excursion" ...

La différence entre ces balayages et la recherche de l'écrit (que l'on verra dans les orientations visuelles suivantes) réside en "l'intentionnalité" du lecteur dans le second cas. Lors d'un balayage sphérique (ou tous azimuts), le lecteur passe en revue ce qui est à lire autour de lui quelle que soit la nature des écrits les uns par rapport aux autres. Au contraire, dans la recherche de l'écrit, il n'y a pour commencer pas d'enchaînement (point non négligeable !) et le type d'écrit recherché est forcément connu par le sujet, et lui sert d'objectif : *Il doit bien y avoir le prix de cette robe marqué quelque part !*

2 • les focalisations

Les focalisations nous amenant à la lecture d'un écrit sont de deux natures différentes. Soit il s'agit d'un évènement (extérieur et dynamique) qui nous amène à l'écrit, soit c'est notre intérêt qui nous pousse à aller voir telle vitrine, ou à lire telle affiche. Il s'agit d'un orientation visuelle élémentaire, à la base de certaines séquences de lectures comme le zoom, la plongée, l'attente...

Les focalisations de type : évènement → lecture

Le citadin est mobilisé constamment quand il chemine en contexte. Ces évènements sont de natures différentes, mais ils ont pour point commun d'être dynamiques. Ils peuvent être d'ordre visuel - une personne qui arrive dans notre direction -, d'ordre sonore - une voiture qui klaxonne -, d'ordre olfactif - telle odeur de frite qui nous passe sous le nez - Autant d'évènements attirant notre attention sur une façade, une voiture, une personne, un objet qui peuvent amener à la lecture d'un écrit. *Patrick, Olivier* nous en donnent des exemples :

- *Là je m'arrête parce que le tramway vient de passer. Le tramway avec son numéro " 2027 " je fais gaffe, voilà.*
- *" Etablissement Giraud, tissus, siège, tapisserie " sur le camion...*
- *" TAG " pour le tramway " Gare ". " 38 " là pour la bagnole qui arrive.*
- *" Vanne gaz ", là je viens de regarder la dame-là qui sonne et j'ai regardé à droite, en bas-là " vanne gaz ".*
- *Je regarde la voiture qui vient de se garer, ce que c'est, c'est un " agencement menuiserie bar ".*

Les focalisations de type : intérêt → lecture

Le principe des focalisations de ce type est simple : je vois ou je lis quelque chose qui peut-être m'intéresse. J'y vais et je le lis. C'est l'exemple de la petite vierge avec sa plaque aperçue au coin d'un bâtiment par *Corine* :

- *Dans le coin il y a une petite vierge.... de couleur et sous vitrine. Elle s'appelle donc " la vierge Saint-Claire ", " née à Assise 1194 - 1253 ".*

Ou du bouquet de fleurs aperçu par *Claire* :

- *Ils ont des bouquets toujours magnifiques, et pas très très chers, des " pivoines ", " le bouquet de jardin 35 Fr. " ... ouais, c'est vraiment joli.*

Là, c'était la vision d'un objet et de sa plaque qui ont amené la personne à la lecture. L'élément a, pour la personne attirée, un potentiel de lecture intéressant. On retrouve cette figure chez *Martine* et *Sylvie* entre autres avec un panneau " À louer " en haut d'un immeuble assez chic :

- *Tiens, t'as vu ? Il y a un superbe appart " à louer " là... Ah ça doit être sympa la vue, heu, la vue sur la place. Par contre le numéro, je n'ai pas mes lunettes alors heu " 76 46 30 40 ", " 40 40 " je crois.*

La focalisation de type intérêt entraînant la lecture peut être le fait d'une lecture à distance d'un écrit donnant envie d'en savoir plus. On est alors dans un cas presque renversé où c'est la lecture qui entraîne l'intérêt. *Claire* nous en donne trois exemples :

- *" Le relais des caves " !... Qu'est-ce qu'ils nous offrent de bon à boire ?*
- *" Un été culturel ", " La Maison du Tourisme ", c'est peut-être intéressant à lire. A voir, à s'informer pour les vacances... hein ?...*
- *C. : Ah, ah " la Fée ", je voulais aller voir. Tu connais ce magasin la Fée ou ?*
- E. : Non. C'est du textile ?*
- C. : Pas du tout ? Ouais, je crois que c'est du tissu. Je vais aller voir.*

Dans ces derniers cas, la frontière entre le zoom et la focalisation ne dépend que des changements de catégorie et d'échelle des écrits enchaînés, balayés ainsi. Pour finir, nous avons même avec *Olivier* un cas oralisé d'anti-attraction (le terme répulsion serait trop fort) :

- *Prix des gâteaux, je regarde pas.*

3 • le zoom.

Le zoom est le passage d'un écrit à un autre selon un système d'emboîtement. Par exemple, *Claire* nous fait passer du nom d'une boutique de chaussures aux marques en vitrine, puis descend aux prix affichés pour finir par la lecture des pointures disponibles.

- ... "Alors Conty boutique" ..., "Ted Lapidus", "Arche", "Alexandre", bof... "350 Fr.
"... bof, c'est pas ma pointure..."

On a un changement de catégorie et d'échelle (cf. balayage de type linéaire) à chaque passage d'un écrit à un autre lors d'un zoom comme on le voit dans l'exemple ci-dessus. Cette séquence de lecture correspond à une composition d'orientations visuelles plus élémentaires : la focalisation (intérêt → lecture) et le balayage, voire ici à une logique d'enchaînement. Le zoom peut être aussi initié par une recherche, mode plus élaboré de la focalisation. On pourrait imaginer un zoom arrière (le mouvement est alors en sens inverse). Toutefois le corpus dont nous disposons n'en offre aucun exemple.

4 • les recherches

Là aussi, les séquences de lecture que nous nommerons recherches sont de deux types. Le premier concerne la recherche de l'écrit et de son support. Le second est la recherche de l'écrit au sein d'autres écrits - le support étant dans ce cas connu et pouvant être même source de la motivation de cette recherche (précédé par une séquence de focalisation intérêt → lecture).

Les recherches de l'écrit

La recherche d'un écrit passe en général par la recherche de son support. Cette recherche est souvent guidée par une pré-connaissance de la présence de cet écrit comme " *il doit y avoir le prix marqué quelque part...*" ou " *Où sont les horaires d'ouvertures ?*"

- *ben là aussi des "soldes" évidemment. "380 Fr." ben moi qui étais intéressée par des surfs peut-être qu'il y a des soldes sur les surfs ? Ça serait rigolo... Ouais enfin des soldes de surfs moyens quoi.*

- *Et les ouvertures c'est quoi moi qui voudrais faire un cadeau à mon grand frère : "15 h - 19 h 30", mais c'est fermé pourtant, non ?... Ah non, il y a de la lumière.*

- *Là aussi, plein de petites fleurs, comment ça s'appelle ? Des ... "Rubekia vivaces" [?]. Oui, c'est très joli, on dirait des tout petits tournesols.*

L'absence d'un écrit recherché est lui aussi notée par les participants. *Franck* remarque le peu de graffitis après avoir regardé tout autour de lui :

- *Pas tellement de graffiti, ou alors ça a dû être nettoyé...*

Les recherches dans l'écrit

Les recherches de l'écrit dans l'écrit interviennent alors que l'on a déjà reconnu le support comme potentiellement porteur d'une information intéressante. C'est le cas classique de la recherche d'un nom dans une liste d'interphone, d'un journal parmi d'autres journaux, d'une adresse en petit sur une affiche, d'une signature au bas d'un tableau...

- “ Au ciné à Grenoble ”, fais voir qu'est-ce qu'ils ont là ?
- alors là c'est... j'sais pas quoi ! Je ne connais pas, de l'allemand peut-être ? Plein de journaux, “ Boats competitions ” c'est la dernière page d'un journal qui vend des chaussures... “ Le matin ”, là c'est des journaux... ah il y a un journal... algérien, avec heu.... je peux pas lire... je comprends rien (rires)... En dessous il y a... je sais pas qui ! “ Le social... des classes... la réforme... ” je sais pas quoi.....
- “ Tirez sur le pianiste ”, tiens je vais voir les bouquins qu'ils ont. Je cherche des Balzac d'occasion, est-ce qu'ils en ont ? Non.
- C. : Il y est là ?... Non, là ils ont que les, les...
- E : Non, là on est mardi.
- C. : On est mardi, ah ouais. “ Die Zeit ” ... [?] (elle lit une phrase en allemand) et ben.

Comme pour la focalisation de type intérêt entraînant la lecture, ces séquences sont très proches du zoom comme dans l'exemple de *Claire* cherchant un écrit en alphabet latin dans un journal arabe (focalisation puis recherche → zoom ici) :

- Tu sais des journaux comme ça, mais. Ah et puis alors là vraiment, à part le prix, il n'y a rien d'écrit en français quoi, “ Prix France 5 Fr. ”.

5 • la plongée (absorption)

Lire un texte long nécessite une attention toute particulière. Cette attention peut même aller jusqu'à une absorption du lecteur. C'est cela que nous appellerons une plongée. Cette orientation visuelle est précédée, en général, d'une focalisation de type intérêt → lecture ou d'une recherche de l'écrit dans l'écrit. Souvent cette lecture se termine de manière silencieuse, l'absorption (véritable plongée) empêche toute oralisation. *Claire* nous en donne de nombreux exemples devant un étalage extérieur d'une librairie :

- “ Gaston Leroux ” tiens ! “ Le fauteuil hanté ”.
- E : Rouletabille ?
- C. : C'est Rouletabille tu crois ? “ Romancier français, père du célèbre détective Rouletabille, ses romans mêlent avec brio l'humour et le mystère. Sus aux immortels ”... “ Hypolitte Pata [≈] le secrétaire perpétuel ”... “ Hélas il y aurait de quoi s'arracher les cheveux si les 39 en avaient encore, car l'illustre assemblée risque fort d'être déshonorée [?] Gaspar percera le secret de Toht [≈] et le mystère de la chanson qui tue. ”... Ça a l'air... mais ils savent toujours bien appâter le ... le client éventuel, hein quand-même.
- “ l'archéologie ”, ah, là aussi ils soldent, là dit donc ça n'arrête pas. Ah ! Ça c'est super, mon prof il y est allé en Chine, il les a vus, tu sais, c'est toute une armée de soldats qui a été enterrée à...
- E : A taille humaine ?
- C. : Non, justement, un tout petit peu plus petit, alors on ne sait pas si c'est vraiment leur taille normale ou s'ils étaient, enfin, ou si on les a un tout petit peu réduits. Et à ce qu'il paraît, c'est vraiment superbe quoi, je pense qu'à l'intérieur ça doit valoir, ah en plus c'est en couleur... “ Le décryptage du linéaire B ”
- Ah mais tiens, ça a l'air pas mal, ça a l'air tourné vraiment vers le pratique. “ Ur ” “ Le mont Carmel et le paléolithique ” “ Novgorod, ville russe médiévale ”.

Et *Martine* et *Sylvie* devant une plaque commémorative :

- M. : Alors va-y tu lis.
- S. : “ En 1874 le conseil municipal de Grenoble fait édifier cette halle à l'emplacement de l'ancien couvent démolí en 1818. Depuis plus d'un siècle, l'abri est un marché au cœur de la ville. Elle a été rénovée et remise en valeur en 1990 et inaugurée par... ”

6 • l'attente

La notion d'attente correspond à l'intervalle entre une intention de lecture et le moment où on peut lire. Cette attente est soit due à une gêne visuelle ou/et psychologique, soit liée aux technologies nouvelles de l'affichage. Dans les deux cas, elle nécessite une

intention de lecture qui se concrétise soit par une focalisation de type intérêt → lecture, soit par une recherche de l'écrit dans l'écrit.

L'attente liée à une gêne

La gêne peut être d'ordre visuel, perceptif : elle indique un manque de visibilité temporaire :

- J'attends que le camion passe pour finir de lire cette affiche.
- J'attends que le tramway se rapproche pour pouvoir lire sa destination.

La gêne est parfois d'ordre plus psychologique :

- J'attends que cette personne ne soit plus là pour aller lire les programmes du cinéma...

L'attente liée aux nouvelles technologies de l'affichage

Les nouvelles technologies de l'affichage jouent avec le temps dans leur principe d'émission - réception. *Olivier* en donne un exemple avec l'écran de télévision dans les stations de tramway indiquant par pages déroulantes les minutes d'attente avant un prochain passage et donnant des informations sur le réseau T.A.G.

- " TAG ticket ". Là je regarde la télé " prochain départ - gare - attente en minute ".

On retrouve ce principe d'attente dans les bandes défilantes à cristaux liquides, indiquant X informations, sur lesquelles on espère pouvoir lire l'heure par exemple ; ou encore les grands panneaux municipaux de même principe, qui nous demandent souvent d'attendre la " rotation " des informations pour finir de lire ce que l'on a entre-aperçu. On a aussi, en plus " archaïque " apparemment, les systèmes à rotation mécanique d'affichages publicitaires tels que les colonnes Morris, les panneaux avec des affiches déroulantes verticales ou horizontales et, plus intrigant, ceux composés de prismes pivotant sur eux-mêmes où chaque facette comporte un morceau de l'image à venir. (On retrouve dans les espaces publics que sont les gares un nombre important de ces dispositifs).

7 • la re-composition de l'écrit par l'espace

L'espace et les matériaux décomposent certains écrits, que nous recomposons dans notre lecture. A partir d'un début de lecture ou de la visualisation globale de l'écrit anamorphosé, le sujet en déduit la suite ou en compose le texte, faisant autant appel à la disposition spatiale qu'à une pré-connaissance textuelle ou graphique de l'écrit. *Olivier* nous en donne de nombreux exemples :

- " Collection " à l'envers.
- Je vois " place Sainte-Claire " écrit à l'envers en reflet sur la vitre (du camion).
- Je vois " Oxbow " à l'envers.

Ainsi que Patrick :

Alors là, il y a les " heures d'ouverture " heu de la semaine, voilà... Et puis le sens des portes " pousser " ou " entrée interdite " à l'envers...

Conclusions

Appréhender l'espace public urbain par la pratique et la perception du citadin apparaît comme primordial. Bien plus que les écrits dans la ville comme matière isolée, notre objet d'étude s'est avéré être l'espace du citadin, son espace, ses espaces, nos espaces.

Les écrits en lecture ont été des révélateurs formidables concernant les pratiques de ces espaces. Il devient de plus en plus difficile, voire inutile, de distinguer la frontière initialement posée entre une approche plus esthétique et le corpus des commentaires, des cheminements et des observations. La perception de cette peau sur la ville n'est possible que grâce à ces pratiques de l'espace, à ces piétinements, à ces vécus de citadin, à ces imaginaires évoqués. C'est peu dire alors que perception et motricité sont indissociablement liées là-aussi. Jean-François Augoyard²³ nous rappelle que :

Marcher, c'est construire du lieu.
Marcher, c'est prendre du temps.
Marcher, c'est modaliser.

Les résultats auxquels nous arrivons, concernant l'influence des écrits dans nos manières d'appréhender autant l'espace pratique que des espaces plus symboliques, formulent aussi, en ce qui concerne notre perception de ces textes *in situ*, que la lecture, avec ses spécificités, participe de cette construction du lieu, de cette configuration du temps et de cette modalisation de l'espace public par le vécu.

Les séquences de lectures dégagées à partir des parcours commentés témoignent des manières dont la lecture mobilise le marcheur par des orientations visuelles, perceptives, mettant constamment en jeu le rapport sensori-moteur du citadin. Cette richesse et cette diversité d'attitudes sont observables au niveau du discours, des tracés ou de la vidéo, selon des modes d'expressions sur l'un ou l'autre des corpus obtenus. Il semblerait par leur côté générique que les types de mobilisation du citadin, dégagés par la lecture, sont utilisables et généralisables à d'autres facteurs de l'environnement urbain que les écrits.

On peut par ailleurs se poser la question : quel espace de liberté s'offre au citadin dans les aménagements urbains contemporains ? Cette diversité quant aux types de mobilisation du citadin par l'espace, que nous avons observée, est-elle encore possible ?²⁴

Ces orientations visuelles nous montrent aussi l'espace public comme un espace de distraction. On ne focalise pas longtemps son attention, on se croise de façon très minimale, distraite. Le regard choisit des objets, choisit de s'orienter de manière à se poser sur ses objets, à échapper au regard de l'autre au moins partiellement. L'espace public urbain a souvent été approché par l'interaction sociale, alors qu'il offre un nombre considérable d'objets, en particulier ici les écrits, qui interagissent constamment sur nos pratiques ordinaires, voire infra-ordinaires, de la ville.

²³ “ L'expression habitante ne déréalise pas, elle réalise plutôt à sa manière. Et cette manière contredit radicalement le postulat du bâtir contemporain : produire de l'espace selon le temps chronométrique et prévoir l'usage selon la pure spatialité. L'expression habitante nous montre au contraire que l'espace habité s'articule selon le temps vécu. ” Jean-François AUGOYARD, *Pas à pas, essai sur le cheminement quotidien en milieu urbain*, Éd. du Seuil, Paris, 1979, p. 126.

²⁴ Nos rues, nos places sont de plus en plus directives pour nos pas. Sous prétexte de nous protéger des voitures, d'éviter qu'elles empiètent sur les trottoirs, de guider les flux des marcheurs... l'espace public urbain, par de multiples moyens, interdit de plus en plus le flâneur, le collectionneur. Comment traverser les rues avec les bornes, barrières, arceaux, potelets, chaînes qui conditionnent nos cheminements... Olivier RATOUIS nous indique que : “ c'est ainsi que l'on parle à la Défense par exemple d'échangeurs piétons comme ailleurs d'échangeurs (auto) routiers ”. L'espace public ne devenant plus qu'un trait entre des espaces privés, interdisant toute orientation autre que celles aménagées. “ Le sens de la marche, dans les pas de Walter Benjamin ”, in *Les Annales de la recherche urbaine*, n° 57-58, p. 71-81.

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Street listening

(2003)

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Street listening

A characterisation of the sound environment: The «qualified listening in motion» method

Nicolas Tixier

Introduction

We have been developing an approach based on a more qualitative study of the sound environment which will complement in a preparatory fashion the usual metrological surveying techniques used in urban acoustics. It is directly based on the notion of atmosphere (called “ambiance” in French¹) and the descriptive and interpretative tools: the sound effects². This method was developed in collaboration with Nicolas Boyer under the direction of Jean-François Augoyard. It has been used in an exploratory fashion in several research projects³⁻⁴ with the interdisciplinary collaboration of other laboratories [physical characterisation, numeric simulation]. Two sites were used for this study: the Vigny-Musset district in Grenoble (Isère), and the Port au Blé district in Rezé (Loire-Atlantique).

Methodology

Approaching a “sound atmosphere” (“ambiances sonores”) involves an interdisciplinary process taking into account both the physical and the constructed dimensions of the space, as well as the social and perceptive dimensions of the users. We

will thus make the triple postulate of an approach which will be: urban, in situ and dynamic. Our qualified-listening (*écoute qualifiée*) method stems directly from the method of the commented city walks⁵ by Jean-Paul Thibaud.

The commented city walks can be illustrated by the three verbs of action: “to walk, to perceive and to describe”. Moreover, they are adapted to three main hypotheses in order to apprehend our sensible environment:

1. To reaffirm the importance of context in the survey’s system. This concerns a reintroduction of a double contextual dimension that is often absent within sensible studies as well as urban and pragmatic dimensions: i.e. the way we act in a city. This is to be done in situation, in context and through the action of walking with the purpose of participating in the emergence of these sound phenomena.
2. A relationship between the order of description and the order of perception, which concerns the recognition of the habitants’ competence in describing the environment where they live.
3. The order of perception concerns the habitants’ mobility, therefore the choice of a dynamic situation for the approach.

Jean-Paul Thibaud states that it’s more a question of avoiding a scholarly and disengaged description, than of aiming at an ordinary and participatory one.

This proposed method is an adaptation of the method of the commented city walks. This adaptation can be differentiated through three principal aspects :

1. the focusing on the description of the sonic environment ;
2. the demands of a technical system ;
3. a final form that articulates different types of materials.

The next step, after an architectural and urban survey, is to obtain the reports of what is perceived whilst moving, thanks to a recording device and acoustic amplification.

Fig. 1: Walking,
listening and
describing.



The *listening subject* is fitted out with two systems of synchronised recording equipment:

- The amplified listening apparatus: a directional microphone + a pole that the listener directs himself + D.A.T. recording of the sound environment + headphones (the band is adjusted to dB(A) level to enable a later metrological analysis).
- Comments: a small lapel mounted microphone + Dictaphone recording of the descriptions.

This technical apparatus, thanks to the emphasis it lays on the surrounding sounds, helps the participant to speak of what is usually taken for granted and is thus difficult to express, namely our everyday sound environment. This equipment generates a paradoxical situation, since one at the same time is outside the context (we are listening with headphones), but also within the context (one listening while walking in the city). The distance between these two ambivalent situations which take place simultaneously facilitates the verbalisation and the concentration of the entire process.

A researcher accompanies the participants in order to guide them and to encourage them to speak if necessary. His presence is sometimes necessary to put the comments into context and to note their relative importance. The participants are mainly selected on the basis of their connections – or lack of them – to the studied

space: lodgings, work, shops, school, walks, gardens... They go round the circuits at different times of the day, on different days, and even in different weather conditions. By the amount of the repetitions within the comments of fifteen candidates, it is soon clear that it's very possible to circumscribe the different phenomena. The instruction before starting the course is simple: i.e. to say what one hears and to comment on it. In order to help a person, if that is necessary, the researcher can specify that he/she can list the sound phenomena. When possible, try to qualify them and explain the relations they maintain with the city, the people or oneself. It's also necessary for the candidates, from time to time, to describe their location precisely in order to facilitate the phase of the analysis.

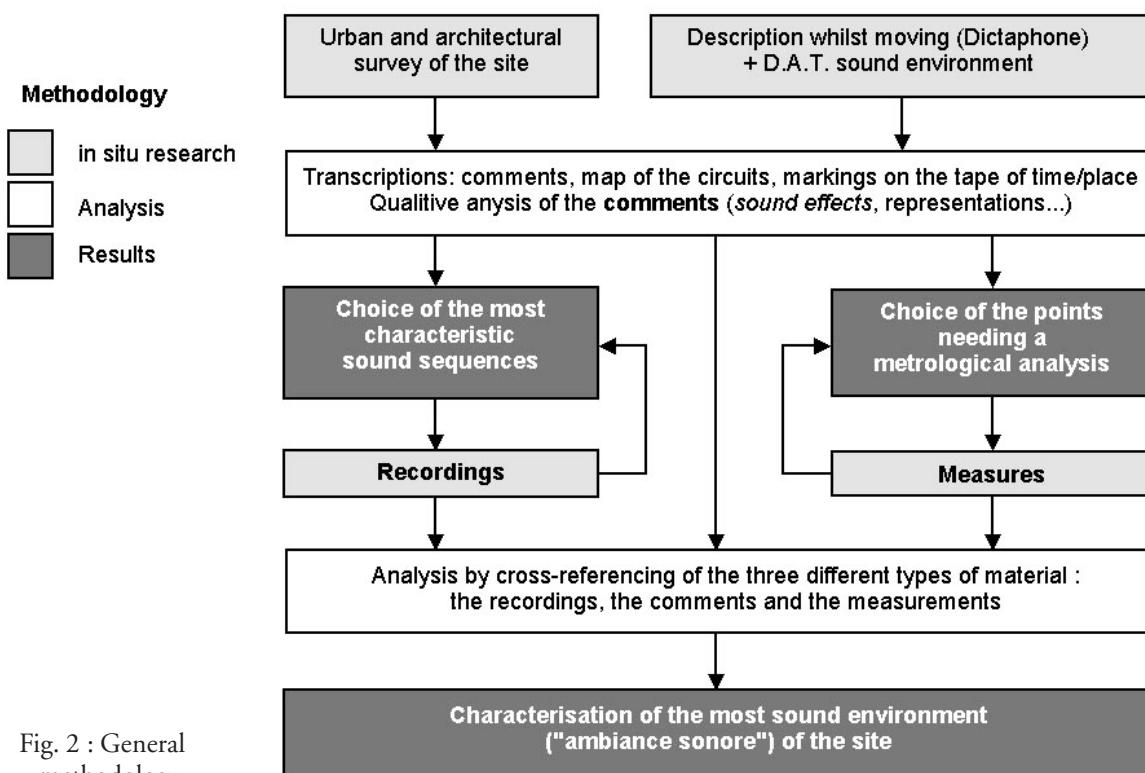


Fig. 2 : General methodology.

Analysis

The qualitative analysis of the participant's comments in response to the built environment is done by following a technique called "table and scissors" (la table et les ciseaux) (a phrase coined by Y. Chalas⁶). This technique is often used for the construction of typologies, and in figurative analysis (analyse figurative). The sequencing into meaningful entities is done by following five modes of apprehending sounds. The first three correspond to three of the four ways of listening listed by Pierre Schaeffer⁷ namely: **hearing** (unprocessed sounds, "ouïr"), **attending** (qualitative perception or perceptions qualifiées, "entendre") and **listening** (indications, "écouter"). The fourth listening modality is the **comprehending** ("comprendre"): it corresponds to the researchers ability of listening. The analysis of the comments implies the adjunction of two more criteria: the sounds directly linked to the participant's statements which qualify the sound space in a more general way. This second stage enables us to list the qualities and the sound phenomena according to the different spaces and transitions studied. This enables us to select what is major and sufficiently recurrent within the sound environment to record and to measure the characteristics of these phenomena, in a third stage. Finally, an analysis combining these three types of data (comments, recordings and measurements) allows us to specify the more noteworthy sound atmospheres of the site.

It is important to pay attention to one certain point of the method. The process of walking engages a general articulation between different spaces. This change causes different events and facilitate the description of sound spaces by the appearance of contrast, i.e. effect of cut, continuity, ubiquity, etc. Thus the discourse carries alternative of what occurs, what occurred and what will occur (I will hear that...) and of what will not occur. In other words, the dynamics of the city walks which permit the mixing between the spatial and temporal sonic spaces, allows the development of the characteristics of the crossing places. This advantage implies also a disadvantage, since this methodology appears less adapted to describe homogeneous environments.

Example

To illustrate this method, here is a simplified example of two “mask” effects on a short sequence taken from the Nantes study (Rezé). The participant walks along a two lane road lined with low buildings, skirts a rather busy roundabout, walks away from it, then along a pavement, to finally enter an open-space where there is a tram stop.

Fig. 3 : [Bus + Tram: levels dB(A)] Two “mask” effects/ two different perceptions



Fig. 4 : Cross-referencing of different types of material (extract)

Recording (D.A.T.)	Interesting expressions (extracts) (Dictaphone)	Description of the sound effect	Temporality Sequence	Indicative measurements	Synthesis Comments
...					
Flow of cars	<p>– " ... In fact, the cars make such a noise that any other sound is drowned out. I can see the tram, but I can't even hear it."</p> <p>– " a moped, but I did not really hear it. One can't hear any birds at all."</p> <p>– "And so this is ... well there I could not say a thing, it was impossible to hear anything"</p>	"Mask" Continuum	Continuous	$L_{eq(10\ s)} = 63\ dB(A)$ (during traffic)	The participants even stop talking (the cars drown their voices) and wait until the noise has died down or until they have walked further. In general people walk faster when skirting the roundabout.
...					
The tram goes by (It's arrival, bell rings, it brakes, the doors open, passengers get on and off, the doors close, it drives away)	<p>– " I can hear... yes, ... faintly hear the tram."</p> <p>– "Now I can hear the tram going by."</p> <p>– "The tram is pulling away, my ears are ringing slightly."</p> <p>– "The tram bells."</p> <p>– "Whirrrrrrr, it is pulling away, I can hear it clearly."</p> <p>– "And here comes a tram... now ... it is slowing down...whizzzz... now, it is whistling again. It's stopping."</p>	Emergence Crescendo Signal "Mask"	Narrative Series of events	$L_{eq(10\ s)} = 75\ dB(A)$ (when the tram comes) $L_{max} = 84\ dB(A)$	People note the tram's arrival far more than its departure. Narrative sequence.
...					

There are two occurrences of the masking effect within this short walk linked to the passage of cars. The first one is generated by the traffic at the roundabout. It is characterised by several factors. First of all, people express it in a direct manner: “*the cars make such a noise any other sound is drowned out*”. Secondly, they also express it in a more indirect way, through its impregnation on the general context: “*I can see the tram but I can't even hear it*”. Thirdly, it is noticeable when listening to the comments themselves that the subjects stop talking and only resume their commentary once they have left the roundabout. Fourthly it is recorded and fifthly it is characterised by a measurement. This effect is generally perceived as being a nuisance: people walk faster when they go past and this negative connotation is found in the different comments, going as far even as the obliteration of the identity of “the mask”: “*it is impossible to hear anything*”, when in fact one can clearly hear it.

On the contrary, the “mask” effect created by the tram's arrival is never perceived as a nuisance whereas the noise level is clearly more important. The sound characteristics of the tramway and its use have the dual characteristic of forming a series of events limited in time (whereas car traffic partakes of a continuum) and part of a narrative (the series of events forming a meaningful sequence).

Conclusion

The localisation and the characterisation of the meaningful sound phenomena allow a metrological economy, by answering the classical questions on the acoustic evaluation of a large urban zone: what should one measure, where, when, and using what types of measures and analysis? This complementary approach to the more classical techniques enable us to widen the field of the observable in acoustic metrology thanks to an interdisciplinary combination of the sound phenomenon (characterisation of the built surroundings, of the activities, urban perceptions, measures and temporality ...) Furthermore, the measurements and recordings only grasp certain dimensions of the perceived sound environment. Taking the walk-course as a basis, the urban speech and way of listening introduce fundamental parameters to the qualification of atmosphere, namely **the time dynamics and the interaction of the city dwellers to their surroundings**. This method can be easily adapted to the different places and purposes of the study.

But in conclusion, I'd like to point out one very important thing that appeared little by little during the studies : In classical surveys like questionnaires, it is the participants who give the informations that will be analysed. In this method, we have an exchange between the participant and the researcher : it is no ordinary action to listen and comment upon one's own everyday environment. For this reason, it is an "ecological" and "citizen" experience which transforms the participant's perception and social representations of their sound environment.

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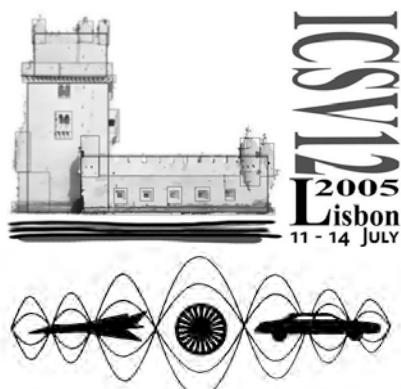
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Translator's note: "qualified listening" includes the idea of quality and of qualifying, describing. Principal translation: Anne-Marie Tatham. Acknowledgements: B. Hellstrom, J. Mc Oisans, J.-P. Thibaud.

Sound of a Factory
/
Factory of Sounds

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**Twelfth International Congress
on Sound and Vibration**

SOUND OF A FACTORY / FACTORY OF SOUNDS

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Abstract

During the first visit to a former factory, the overriding experience is one of silence. The Vairet-Baudot ceramics workshops in the French county of Ciry-le-Noble closed in 1967. Left intact with all the machinery in place, these buildings have benefitted from the protection of the Creusot Ecomuseum. During the summer of 2004, this “sonic oxymoron” provided the basis of an acoustic experiment.

An octaphonic sound-system allowed us to create a sonic image of considerable depth for the visitor moving in the space. As we were developing this project, we attempted to arrive at a better understanding of the interest or value that the “sounding” of an historical space, deprived of its former sonic ambiance, might represent. I would classify the results of this research / action based according to 3 preoccupations which guided this sonic experiment :

- 1) What position to adopt with respect to the project? Two choices might seem obvious. The first would be to “recreate” the sound of the place, replaying the sounds of another time, the acoustic synchronies of the now still machines; the second would be to “enliven” the space with an artistic creation. We finally adopted a third approach which was simply one of “sounding the spaces”. Attentive listening allowed us to define effective ways of producing sonic qualities which evoked the transformation of raw clay into brick and thus something of the “memory” of the place.
- 2) The visitors’ experiences were analyzed according to four categories: “listening in movement”, “dissected listening”, “visual listening” and “embodied listening”.
- 3) Might the business of putting sound to this silent – though not mute ! - heritage space not be something like putting sound to images in cinema? Can one create “soundtracks” for certain spaces we inhabit ? Certain tools used in cinema proved to be useful in describing the relation between sound and the factory space.

THE SILENT FACTORY – A SONIC OXYMORON!

In our imagination, a factory is a world of noise.

Noise from materials being worked on, noise from working machines, noise from things being moved. We do not speak to each other, we shout, we whistle, we touch, we signal, we talk with our hands. And when the noise of the machines stops, that usually means something serious, an accident, a strike, a layoff... These images, probably outdated, perhaps false, often exaggerated, make it difficult to conceive that factories are not only a world of noise but in fact a world of communication, of significant sounds which are part of an identity. So the silent factory, not functioning, abandoned, by its very size, its materials and its machines, by the absence of activity, is an unexpected world of silence. A world at a standstill, a pause in time, a pause on a still image.



« La briqueterie » - 2004

The Vairet-Baudot ceramics workshops in the French county of Ciry-le-Noble, in Saône et Loire, is one of these places. Built at the end of the 19th century, the factory was active for more than 70 years, transforming clay into bricks and tiles. It closed definitively in 1967. Left intact, with most of its machinery, lying fallow, crumbling in places, it was bought by the Creusot Ecomuseum which began to restore it in 1995. It is now part of the industrial heritage of the region, with tours and exhibitions held throughout the summer.

UBIQUITOUS SOUNDING BRICKS...

In the context of european project (www.archartproject.net), the Creusot Ecomuseum asked the Cresson laboratory to work on the sonic aspect of Ciry-le-Noble.

We know how to restore what is built, what we see. It is not easy, but we can do it. It requires know-how, knowledge of history, geography, society and - maybe most of all - a position, an approach. But when it comes to sonic restoration, we are sorely lacking in theoretical elements as well as precedents. What does it mean to give back a sonic dimension to built heritage, and what is more to industrial heritage ? Without wanting to or being able to answer this very broad question, we can at least point to two approaches, which we will consider as 2 extremes among many possible options :

- To « replay » the site through historical simulation: this would mean recreating the sounds of the period and placing them in the space either through recorded sound

and speakers or by mechanical or human production. Finding and reproducing the sounds of the past. Yes... but unless we have period recordings – which would be precious but extremely rare – that amounts to creating a sonic fiction. A more or less realistic, more or less accurate fiction, but a fiction which would attempt to replay the past according to our knowledge and images of it.

- To « play against », or « play with » the site through artistic creation: this would mean enlivening the site by using it as a container in which to place a sound installation, a work of art. The artist is free to create, to find more or less close resonance with the site and its historical dimension.

A middle ground might be simply to « play the site », to « sound it » by giving it a sonic dimension which is neither an acoustic synchronization with the stopped machines, nor a creation ex-nihilo , interesting as that may be. Sounding the site means first of all to listen to it, to hear it sound or to make it sound, through its materials, its particular spaces and configurations. To capture sounds in situ in order to rework them. Sonic traces. Sonic imprints. Sounding the site is also to narrate it. By its history: the transformation of the incoming clay to the outgoing brick, the story of the people who knew it when it was in operation... But also by the present: the training in the adult education centre, the tour guides... and sounds recorded in a nearby modern brick factory.

This experiment to « put sound to » the ceramics factory was done in the Spring of 2004 and ran all through the summer. Richard Atienza, Nicolas Lounis and Julien Mc Oisans created what they called « un cheminement identitaire » - a sound installation which encompassed the whole of the site, taking into account the characteristics of each space, including exterior spaces. It is a multitrack composition for eight loudspeakers, broadcasting sounds recorded in situ, then mixed and composed.

Ubiquity reigns.

The underlying principle of this soundscape plays on the idea of ubiquity on several levels. « By nature, sound has an intrinsic tendency toward ubiquity – in fact it is impossible to limit or materialize the placement of a sound » [1]. Here, the visitor is in a situation of acousmatic listening. He hears the sound without seeing its source. He sees no action which could produce sound, nor are there any loudspeakers in his field of vision. The sound is there, but if we know or think we know from which general direction it is coming, most often we cannot pinpoint its source. Spatial ubiquity, since we do not know where the sounds come from. They may be coming from the room in which we are standing, from the room next door, from outside, but they may also have been recorded in another space altogether, as is the case for the sounds recorded in the modern factory and reintroduced here. But ubiquity is also temporal in a sense, as we never know if the sounds are direct or delayed, if they are witnesses of the past or signs of the present. « Des fantômes sensoriels » or sensory ghosts, as Michel Chion would say. To these ubiquties is often added ambiguity as to the origins and the causes of the sounds we hear. The site offers spaces without activity, silent machines, but our mental image of them is so full of sound that the

actual sounds we hear, coming from various, unlocalized sources, are but one component of the visitor's soundscape (Cf. Gilles Deleuze on cinema, for whom the sound track of a film is only one component of its soundscape).

THE LISTENERS SPEAK

A study was done by gathering the comments of listeners or visitors to the brick factory [2]. By analyzing these visits through a reasoned typology, we became aware of the relationship between the site, the sounds and the visitor. Four types of listening were identified: listening in motion, dissected listening, visual listening and embodied listening.

Listening in motion

While following the route defined by the researcher, the listener describes what he sees, what he hears, what he feels. He makes comments, value judgements, while putting his memory to work. The initial instruction was as follows: «Sound installations have been created on this site. We will follow a route together which follows the order of the visit, during which you will describe what you hear. You can also specify where it is happening, what you feel, what ambiance is created.» This could not be done with visitors taking a guided tour. For them, we opted for individual interviews after the tour. The personnel of the Ecomuseum and the participants in the adult training sessions also agreed to participate. In every case, the interview was done after the visit had been completed. We then analyzed the various comments which had been gathered. A few categories of comments emerged, among which were the general categories of classification of sound, very close to the 4 ways of hearing described by Pierre Schaeffer [3]. They allow us to address the question of the different ways of perceiving sound through dissected listening, in this heritage site. We will also see the relationship between sound and space through «visual listening» and the relationship between sound and the body through «embodied listening» in this heritage site.

Dissected listening

How is sound material perceived? Three of the four ways of hearing proposed by P. Schaeffer appear in the perception of sound in this heritage site: «ouïr» - harkening, «entendre» - hearing, «écouter» - listening. We labelled a fourth way: «projeter» - projecting. For «ouïr» or harkening, sound is perceived as raw sonic material. In the historical or heritage context, this corresponds to a perception of background noise. It is described as «dull», «low», «heavy», even «deadened», something undefinable. On the whole, the background sound was described as «a rumbling», «a humming», «snoring»... The temporality of this background sound is cyclical, with a regular rhythm. For «entendre» or hearing, the sounds are qualified and imply a selectivity through attentive listening. The listeners are able to qualify the object. Hearing in this heritage site means perceiving a «noise» whose rhythm varies. The temporality of the

soundscape is dynamic. It is characterized by sounds which evoke motion: things that roll, that bang, that hit... The various sounds evoked relate to work in a factory, a building site or a workshop, but also, less frequently, to the sea. For «écouter» or listening, the sounds contain hints which allow the signals to be named. Through the sound of the materials, the listeners perceive everyday sounds from their own environment as well as those of the site. As for the digital sound material, it evokes various types of sources. Some of these sounds blend in with the perception of «live» sound: they come from the machines or the materials characteristic of the brick factory. Other sound events mentioned are more foreign to this type of environment: listeners spoke of an audio installation, a celebration, even a hospital or an aquatic world. The temporality of the sound signals is the event. The listener's personal experience comes into play as he identifies the sound source by calling up references to things he remembers, other than those he actually sees. For «projeter» or projecting, the sound element triggers the imagination of the listener. He tries to qualify the sound and elaborates an idea in order to grasp it. He makes a mental construct from the causal gesture which produces the sound and describes a series of gestures linked to an action, through the simultaneity of sounds which evoke different materials. In this type of listening, the temporality is that of accumulation. Listening attentively to the sequence of sounds allows a scenario to emerge.

Visual listening

Sound and space are closely linked, whether by the image of the machines we have before us or the overall space of the brick factory. The «here» space links visual and sound perception. Live sounds are identified through our knowledge of the place. As for digital sounds, the perceived image reinforces the virtual nature of the installation. Here there is a physical contradiction between the image and the sound. The visitors mention a discrepancy between the sound object and the image before them, like a semantic contradiction. The image here serves to confirm the identification of the sound. The attention is centered on the content of the space. The «nearby» space links the moving receptor and the immobile source. Whether inside or outside, the visitors perceive distance through the sounds. Listening allows one to distinguish the various sound objects placed throughout the space, and sometimes also to identify them and situate oneself in relation to them. The porosity between the interior and the exterior is due in part to the placement of the speakers in the space, but also to the fact that all the spaces are open, with no means of closing them. Situating the sound in the space helps the perception of one's mobility. Here two mobilities intersect: that of the visitor and that of the sound material (the same sound repeated in different places). This method of visual listening relates more to the playful relationship between the sound and its container. It permits an appreciation of the whole expanse of the site as well as of the built architectural volume. The «elsewhere» space is a heterotopia. The on-site survey reveals other spaces [4]. A few minutes of listening can transport the listener to another space. The space mentioned by the visitors which is closest to the current function of the factory is a building site. For some the space becomes a medium for an artistic installation, for others it projects them into another intangible

dimension through «phantom sounds» or «phantom voices». The space mentioned which is farthest from the factory is the metallic hull of a boat at the bottom of the sea. Finally, the visitor can detach himself completely from all types of spaces and attach himself solely to the sound material itself. It reveals organic life; the image is that of a heartbeat. Here we reach the edge of immateriality. This type of visual listening disassociates itself from the function of the place, which becomes «a box», a free, multidimensional volume. The space contains all space.

Embodied listening

Embodied listening underlines the impact of sound on the body. «The body transported» in chronological time occurs through listening in motion, it shifts from one time to another along the route. The weight of the past, through the architecture itself and its content, the presence of the machines, helps bring about this temporal immersion. Nowadays, the presence of workmen doing restoration, the nearby road, give sonic clues which bring us back to our own time. This journey juxtaposes past and present. Certain sound objects seem particular to the past, while others reflect the modern world. The transported body reveals the listener as receptor. «The moving body» corresponds to the way the sound installation works as something to be listened to while moving through it. The place and the visitor interact. In fact, the sound matter piques the curiosity of the listener and acts as a call or an invitation. Sound has a sensory-motor effect. The body is a receptor. Moving in space, moving away from the sound source dims the sound matter. Conversely, moving closer creates a crescendo. The body is an actor, acting on the sound matter. This matter undergoes a change, passing from one sound object to another through the dynamic of movement. «The inhabited body»: in the sonic tour, the listener puts himself in a completely receptive mode. From that point, the sound penetrates his innermost self: «It vibrates in me, in my body, I feel like there is a vibration». There is a compatibility between the sound and the body. The sounds are perceived as «pleasant», «soft», «restful». Placing sounds in the factory helps the listener immerse himself in the ambiance while avoiding being aggressive or didactic.

A « CHRONOGRAPHIC » SOUNDING

What tools do we have to describe the work of sounding a space ? Can we make a comparison between this sound experiment, which involved sounding a scenographed and silent (but not mute) space for visitors, and putting sounds to images in the cinema ? One of the persons who has most contributed to the theory of sound in cinema is Michel Chion [5]. What conceptual tools does he suggest for the cinema which could apply to this type of intervention ? (In the text which follows, the terminology suggested by M. Chion is in quotations.)

Like in cinema, we are dealing here with sounds which are mainly acousmatic. There is of course the ambient sound («le son-territoire» or territorial sound as Chion would say), the birds, the wind, a bit of traffic on the road, but unless we deliberately listen

for it, these sounds are not heard (this corresponds to Pierre Schaeffer's «ouïr»). But here the situation is a bit different from the cinema, where in general sounds are clearly identified with their causes, or so we think !

What really happens? First of all, we have «audio-vision» perceptions which we are accustomed to in the cinema but which we also find *in situ*. This is a «value-added phenomenon of projection which, when associated with the image, seems to come naturally out of it». Sound brings duration to a visual which in and of itself has none.

We then have effects of spatial magnetism («aimantation spatiale»). The sound is attracted by the image. The sound has its physical source in one place, but we associate it with another, with a machine, a specific zone, from which it in fact does not come. This spatial magnetism often lasts a very short time and then is quickly contradicted, creating a kind of schizophrenic perception between the visual image and the sound image. What M. Chion calls «une perception audio-divisuel», an audio-individual perception, where, for instance, the sound we hear makes us that much more sensitive to sounds we do not hear but which the image suggests. Sensitive also at times to suggested background sounds, «which the image suggests but which we do not hear, whereas other sounds associated with the scene are audible.» There is no sonic frame for sounds. When the sounds are not framed by an image (a vision) which fixes them, anchors them, relates them to a finite object in space or, on the contrary, by excluding them fixes their existence on another, invisible scene or in an adjoining space off-camera, they are present without a frame, surrounding and becoming a spatial quality, not an object or a signal. Even if there is no sonic frame, that does not mean that the visitor does not distinguish different fields of sound. Here again, the tools of the cinema are valuable for this installation. We can identify :

- Off-camera sound: sound whose source is not visible on the screen (or for us, in the field of vision), but which is supposed to exist in the place and time of the situation which is represented (for example the sound of steps on a staircase which we do not see but which seems to be in the space above us.) This can be called an active off-camera sound if it brings about a reaction from the visitor (making him come forward, stop abruptly, etc.), whereas a passive off-camera sound, creating more of a sound environment, will generally not bring about a noticeable interaction with the visitor.
- «In» sound : When the source of the sound is in the field of vision. The field of sound can be perceived in this installation only when the loudspeaker has been spotted by the visitor.
- «Off» sound: When the source of the sound is not on-screen, but is supposed to belong to a time or place, real or imaginary, other than what we seen. Here, this would correspond to moments when we hear a voice describing the place.

But unlike cinema, the fields here are not fixed once and for all. Certain sounds shift from one field to another according to the position of the visitor in the space and according to his movements.

Causal listening is unsettled here. The type of listening which focuses, through sound, on any clues which might inform the listener as to its cause. The survey shows how important it can be to the visitor to find a cause, an interpretation for a sound. The absence of direct causality often leads to a kind of audiovisual dissonance, a

contradiction between the momentary sound and the momentary image, between a seemingly realistic sonic ambiance and the context in which it is heard. The visitor often searches within the sound for clues which will allow him to determine its material nature or the cause of the gesture which produces it. And so causal listening projected onto an image leads to numerous audio-visual effects in this installation which plays on the narrative ambiguity of the acousmatic sound :

- effects of meaning, atmosphere, content
- effects of rendering and materials (materializing sonic signs) creating sensations of energy, texture, speed, volume, temperature, etc.
- scenographic effects having to do with the construction of an imaginary space (especially by using extension and suspension, in and out of field, off-camera)
- effects to do with time and the construction of temporal phrasing (synchronization, repetition, segues, appearing and disappearing...)

But the visitor is not always in a mode of causal listening. He can quickly put himself into limited listening mode («écoute réduite» according to P. Schaeffer). This means «a deliberate suspension of cause and sense, and perhaps even effect, to focus on sound in and of itself, on its sensory qualities of height and rhythm, but also texture, matter, form and weight».

Finally, there remains semantic listening, «l'écoute sémantique» (P. Schaeffer), when one is dealing with a coded sonic signal. For instance, simply listening when a person describes the site of the brick factory.

The presence of the guide encouraging semantic listening, as well as the emergence of a non-localized sound source, can generate situations not of audio-vision but rather of visual-audition, perception which is deliberately focused on hearing. It is hearing accompanied, strengthened, helped - or, on the contrary, deformed, interfered with, in any case transformed - by a visual context which can project on it certain perceptions. In this experiment, we are in the presence of an audiovisual scenography, a type of intervention which, while chronographic, can be experienced in many ways, depending on the visitor who has relatively little effect or activity in his soundscape but who can make choices and visit it as he would play a DVD rather than as he would watch a movie in a cinema.

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**Décrire/Modéliser les conduites de cheminement.
Du rôle des ambiances
à l'hypothèse du modèle physique**

(2009)

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Describing/Modelling the Dynamics of Pedestrian Behaviour

From the Role of Ambiance to a Hypothesis for a Physical Model

Nicolas Tixier, Annie Luciani

"Vivre, c'est passer d'un espace à un autre, en essayant le plus possible de ne pas se cogner"^{*}

in Perec Georges (1974). *Espèces d'espaces*, Paris : Éd. Galilée, p. 14.

1 Introduction

Let us look a little closely at the movement of people in public space. What do we see if we follow their paths, the relations played out among them, the areas occupied or left empty and, more importantly, the dynamics of these constant variations and adjustments? In designing public space, it is increasingly important to look at potential movement. This is the case whether considering the quality and diversity of itineraries (e.g. through parks, museums, stadiums, squares) or for the ease with which the public can get in to or out of a given place (e.g. shopping centres and railway stations). We must therefore seek to understand both the individual and collective dynamics involved here and bring to bear analysis and design tools that take them into account.

Pedestrian behaviour in public space is a vast subject of research, involving numerous disciplines. This article will address it from the point of view of path making. The approach developed here highlights the role played by architectural and urban surroundings (Jean-François Augoyard 1979) in pedestrian dynamics, as situations of sensory interaction, which we experience according to a network-actor system (Bruno Latour, 2006). The actor may be a physical person, a group of persons, a moveable or fixed built object or semiographic features within the space, sensory elements of the environment such as a particular light, a zone or source of heat or coolness, soothing or stress-inducing sounds, and so on.

We will first present the adaptation of a method of observation in situ (recurrent observation, (Pascal Amphoux, 2001), then describe experiments with a numerical relational model. This is the physical model developed by ACROE, which generates dynamics using the descriptors and operators of Newtonian physics (the force concept and the principle of action-reaction).

The initial subject of study is an element of public architecture that is particularly dynamic, namely the automatic double doors at the entrance to a shopping centre. Since this first study (Tixier, 20001), numerous applications of this model have been developed and have enabled an approach to the whole of urban configurations having to do with public space to take place with a view to analysing existing spaces and investigating spatial design. This is covered in the third section of this article.

2. Pedestrian behaviour as an object of study

Our literature search concerning pedestrian behaviour enabled us to lay the foundations for our paradigm. It is summarised here and boiled down to a particularly significant handful of authors:

- There is no single way of making a path though an area. Similarly, there are not ‘ “good » and « bad » ways of making paths [cf. Walter Benjamin, Jean-François Augoyard, Jean-Paul Thibaud etc.].
- Types of pedestrian behaviour are forms of expression [cf. Jean-François Augoyard].

¹ This document can be downloaded from www.grenoble.archi.fr/presentation/enseignants/tixier_these.html

- There is a link between path-making attitudes, types of space, and the types of sociability observed [cf. Jean-Paul Thibaud, Rachel Thomas].
- Path making bring out reciprocal interaction and modes of reciprocal attention [cf. Erving Goffman, Louis Quéré, Dietrich Brezger, John R.E. Lee, Rodney Watson, etc.].
- To make a path is to communicate [cf. research carried out at the Palo Alto school].
- Public path making involves collective behaviour because it involves shared, everyday skills [cf. Eric Livingston, Michèle Jolé, etc.]
- This collective behaviour and individual adjustments are usually visually identifiable as significant categories for everyone [cf. Michèle Jolé, Pierre Livet].
- This collective behaviour features organisational characteristics that are noticeable and recurrent [cf. Eric Livingston, Michèle Jolé, etc.]
- Pedestrian behaviour can arise from economising movement and even from the principle of least effort (cf. John R.E. Lee, Rodney Watson).

The majority of the foregoing remarks involve dynamic behaviour or organisations. Thus the question we pose is how exactly can we incorporate these dynamic dimensions into our analysis of pedestrian behaviour as pragmatic rules of thumb and in our understanding of space for practical purposes.

The initial idea was to analyse a small-scale architectural system within which dynamics of various types are taking place over time. These dynamics had to be directly "observable" and had to be sufficiently repetitive and of appropriate frequency. It was desirable for the system to be relatively variable in terms of the atmosphere reigning therein. Furthermore, the system had to feature two types of interaction, namely that occurring between individuals and the spatial system and that occurring amongst the individuals present therein.

The aim was to study behaviour in a built environment and in relationship to it. Consequently, we needed a place featuring movement and action and one wherein these could be observed without too much difficulty. The idea of studying a spatial and technical setup on the scale of the human body ruled out a large-scale urban. We needed a place that was public or semi-public and within which there was enough throughput, this being a sine qua non condition for the examination of pedestrian behaviour. In terms of future modelling a space was required that was not overly complex in spatial terms –one with simple geometry.

The decision to look at the area between automatic double doors in a public place was thus rooted in spatial and time dynamics and the constantly changing interaction that occur within such a system. Here everything is in motion in fact. Thus the main aim of this video observation was to bring out the dynamics occurring using videograms, by describing emergent phenomena and strikingly noticeable interaction.



Sliding Double-Door System
Grand' Place Shopping Centre – Grenoble South

We proceeded to generate a video data base using a discretely placed camera. This provided us with eight short sequences, showing considerable variation and being representative of what took place. These sequences became the basic data for so-called recurrent observation, the principle of which is to ask specialists from a range of disciplines (in this case an architect, town planners, technicians from the automatic door company, psychologists, and so on) as well as regular users of the system (regular passers by, shop-keepers and so on) to state their interpretations of the data, whilst also getting them to react to the remarks and interpretations of earlier commentators. Following this, we crossed and retabulated commentaries and observation materials with a view to understanding the main emergent phenomena. « In this way, this qualitative approach is intrinsically indirect, interpretative and cumulative » (Amphoux 2001).

Analysing the set of interpretative remarks enabled us to capture or update the principle recurrent phenomena. We then stated these in terms of seven principles and emergent dynamics.

These seven categories are described hereafter in terms of « descriptive levels » and outline a possible modeling approach. Gross modo we begin with the principles underpinning the phenomena, then what is observed from interaction, followed by individual and observable dynamics. We conclude with heavily narrative-laden observations concerning the scenario as a whole.

Elasticity: an emergent principle

There is one situation that reoccurs constantly between the double doors. It appears when two people proceed through it in Indian file throughout, or when one yields priority to another or again when mutual positional adjustment takes place. The elasticity concept is probably a basic one for modelling interaction: it is relevant to questions of priority, cooperative processes, the idea of psycho-perceptive volume and no doubt also impressions of flow dynamics with stretching and narrowing effects.

Psychophysical space: an emergent principle

This principle of psychophysical space (a concept developed by E.T.Hall) depends on an ordinal relationship between distances rather than a ratio scale. The variables involved are, above all, physical ones: a volume, a particular solid shape (it is not really natural to have one's shape modified) and a volume within which gestures take place. This volume may change as a function of the person opposite, by a bodily adjustment: people may put themselves sideways on or make themselves smaller, and so on. These variables are at once physical, psychological and cultural. Their description involves a person, a cross-section, a group and even built objects such as doors. The “volume” depends on the nature of the relationship that one believes that one has with the person opposite (and this works both ways). The “volume” may be boiled down to a flexible, horizontal disk for the purposes of our study of automatic doors, since the interaction that arises from their workings mainly take the form of changes of trajectories or in compression/decompression phenomena.

The dynamics of priorities/the priorities of dynamics

Many hypotheses can be put forward concerning the concept of priority in the context of recurrent observation sessions. Who has priority when two people cannot get through simultaneously? Under normal circumstances priority conflicts do not arise very often, despite the fact that they are potentially and continuously present at the entrance to and exit from the double-door system. A certain number of priority systems were observed, namely: right vs. left, the person who has penetrated the most deeply into the system, the person who has the largest psycho-physical volume, the one who takes the straightest path in terms of shared trajectories, the one who moves the fastest or who gets to the double doors first, gestures of politeness, and so on and so forth. It would appear that all these rules of priority apply simultaneously. They get updated depending on physical variables such as proximity, volume, speed and direction. And they may also be updated according to rules of a cultural nature, such as priority being given to the first person into the system, or according to politeness or psychophysical volume. The dynamics of the situation are governed as much by systems of priority as systems of priority are governed by dynamics.

The dynamics of cooperative processes

Interactions between people of a cooperative nature are observed. We can classify these processes into two sets. One set corresponds to the voluntary involvement of participants manifesting reciprocal attention (deliberately triggering door opening to facilitate the passage of someone else, holding the door open and passing this task on to someone else, bodily and trajectory adjustments); the other set consists of cooperative behaviour that is almost involuntary emanating from at least one of those involved, (positioning oneself in the wake of someone who happens to be going through, to get priority or to find out which way to go, and so on).

The expression “cooperative process” is used here in a generic sense. Phenomena such as taking advantage of someone else going through or even bodily adjustments could be classified more precisely along similar lines to those used by Michel de Certeau and his “*arts de faire*”; he has elaborated the concepts of strategy and tactics in the context of trickery.

Anticipation dynamics

These concern door opening, people going by one another in opposite directions, and so on. Viewing the film reveals, much more clearly than observation in the field, the contrast between the idea of the collision that is about to occur and the triggering of the opening, which enables this to be avoided and everyone to keep going at the same speed. In terms of bodily and trajectory adjustments, we really see that people believe in the cooperative system, which ensures that people will make adjustments as a function of others and vice versa. And this is a continuous and ongoing process. Anticipation and adjustment dynamics are fairly similar. Anticipation

includes the notion of there being a time preceding the event that lasts longer than the adjustment time, which occurs at the last minute. Erving Goffman has put forward a concept on which anticipation can be based, namely scanning, which covers an area that varies constantly as a function of the density of the surrounding traffic.

Adjustment dynamics

These are the minor bodily and trajectory adjustments observed when people see the doors opening: they may take a step to one side thus slightly increasing their path length to give the doors the time to open without having to reduce one's walking speed, take a step backwards when they reach the doors so quickly that they have not yet opened, seek out the sensitive detection zone, reduce speed, place oneself in the central axis of the doors so that when they do open one is in the best position to slip through them, halt a gesture in mid-air (this comes out clearly when looking at the videos in slow motion) and initiate a perfunctory gesture that could turn out to be required. For instance, sticking one's hand out towards the doors when they take a while to open up or putting one's arms down by one's side when passing too close to the open doors. These adjustment dynamics are also observed when two people go by one another on opposite directions or when a single person meets a group going the other way.

Threshold dynamics

The double door system is in fact a sophisticated threshold, separating the inside from the outside and on it, or rather within it, we find a number of types of behaviour, some of which are throwbacks to the days of the traditional threshold, whereon certain attitudes and traditions manifested themselves, e.g. (French) people exchange kisses on the threshold before parting. We observed five threshold behavioural patterns. First and foremost it constitutes a meeting point where people wait for one another; on the contrary it is also a place where people say goodbye to one another; again it is a gathering place: the threshold is crossed together once grouping has been accomplished, in all cases it is a place where behaviour change: people change their gait, they take off certain garments, they unbutton their jackets, and so on and so forth. This is particularly noticeable in the case of children: they run up to the doors to trigger their automatic opening, they play in the area between them, and so on. Lastly, it constitutes a meeting place, an intersection where it is impossible not to see others.

Our study of this system showed that here we have a double interaction system: on the one hand there is the interaction between passers-by and the door system and, on the other, interaction among the passers-by themselves. One thing emerges particularly clearly and that is that, in general, there is no clear dividing line between causes and their outcomes. Both are constantly updated and take shape in patterns of mobility and sociability. Spatial forms give rise to types of behaviour just as these very types of behaviour configure space in terms of time and significance, and spatial terms too. We do not have a situation with the built system on one side and the public on the other. We also observe a perception-action-representation continuum, clearly brought out by dynamics of adjustment, anticipation and cooperative processes, and indeed the lack of conflict.

Lastly, although this is not covered in detail in this article, we also used the door system to look at the effects *in situ* of inserting a perturbation into the system to see how pedestrian behaviour then changes. Such perturbations help to uncover the rules that regulate certain forms of interaction. Thus we see that walking on the left gives rise to conflicts; halting between the doors perturbs pedestrian flows and changes their fluidity. When the doors are out of order, special behaviour and attitudes towards the doors immediately appear. It is also possible for experimenters to deliberately generate artificial perturbations in the system. It is possible, for example, to prevent the doors from moving, to get someone to stop in the middle of the system, and so on and so forth. In this way, by experimental manipulation, observation and then induction we can lend support to or favour the rejection of hypotheses concerning the nature of relationships such as interaction, cultural behavioural rules, and so on. For example, this sort of experimentation can be carried out for research into priorities, cooperative processes and so on. But it is also possible to set up an experiment protocol pour to see how sensitive elements of the model are to changes in other constituents. (We shall see that this experimental freedom can be extremely useful and can even prove indispensable for evaluating the settings and the suitability of a model; (we are referring here to the robustness of a model).

To sum up, we may safely say that, thanks to its automatic workings, this type of system provides a situation for research into pedestrian dynamics *in situ* that is at once fairly complex and yet clearly demarcated (with respect to the study of other public spaces such as streets, squares, and so on.) These are two useful features when it comes to modelling.

3. The physical model hypothesis

Pedestrian behaviour has led to the development of a great many computer models. These are often collectively referred to as the "crowd model". Although almost all of them may be classified as multi-agent models, they are based on different working hypotheses, depending on the nature of the model used. Now these differences sometimes mean that they are associated with theoretical hypotheses that are often completely in opposition to one another (behavioural category, perception ecology, cognition, distributed intelligence, and so on.).

In many models there appears at one level or another a "perception - decision - action" loop. This loop does not appear in ACROE's physical modelling approach. It does not feature a time for perception, a time for the decision phase, and a final time for the action that constitutes the upshot of all this. Since interaction computations are carried out at the link level and not at the particle level (point particles in the physical model), all perception is action and therefore communication. In this system, "elementary" communication is not directed towards the exterior, towards our senses, but rather towards the other participants and the other relationships within the model. It is even possible to be one of these participants, but, in this case, we become part of the network, as another of its elements. The simulated model can be made accessible to our sensory apparatus via a representational step requiring a digital-analogue converter. This would then be a second level of communication.

Moreover, *nor is there a decision phase*. Apart from the opening sensors and the times to closing of the automatic doors the model is governed by no cognitive or logical processing.².

ACROE's physical model is built with operators taken from physics. In so-called classical physics, there are two major theoretical systems, Newtonian physics and Hamiltonian physics, each of which has its own rules and operators. Newtonian principles define algebra of dynamic systems (using the concept of force as an operator and action-reaction as a principle). Hamiltonian principles, on the other hand, define a geometry of dynamic systems (using the concept of action as an operator (energy, momentum, and so on.) and the least action principle. Hamiltonian mechanics, from the outset, requires that we look at a movement globally, as a whole and that we compare it with the infinite number of virtual movements of which it is a privileged member. Newtonian mechanics gives us an algebra of motion; in this it is synthetic, whereas Hamiltonian mechanics is a geometry of motion and in this it is analytical. Newtonian mechanics enables incremental calculus (involving calculus steps, each of which can depend on the preceding steps), whereas Hamiltonian mechanics does not allow this. Hamiltonian mechanics allows us to consider causes without knowing their effects. The ACROE physical model, Cordis-Anima, is based on the principles of Newtonian mechanics.

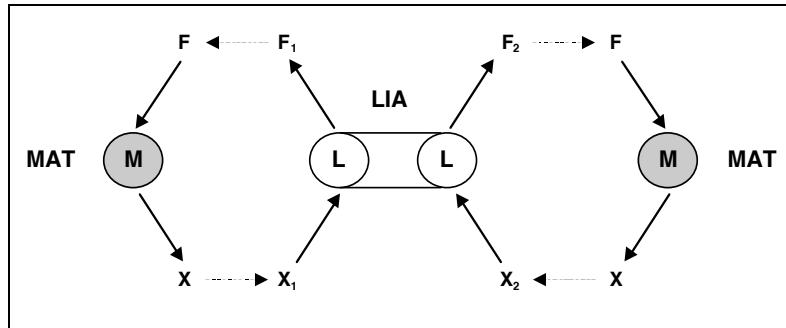
It is then the Newtonian formalism that is used here as a language. It is based on the notion of force and on the action-reaction principle, which is itself equivalent to the principle of the superposition of forces. It is on the basis of this formalism, which defines to a certain extent the elements involved and the rules of the game, that the models created simulate dynamics. Within this formalism, a dynamic system is usually described by a set of differential equations. Rooted in the discrete medium of the computer these assume that not only space but also time are discrete variables. This discretisation implies the choice of a sampling frequency that corresponds to the step length used for the iteration. It is because the ACROE physical model principle is based on a calculating system that is intrinsically dynamic and independent of sensorial particularities, that we are hopeful it will prove relevant for modelling complex and multi-sensorial dynamics.

The first property of the Cordis-Anima modules is their ability to communicate and to interact. The basic idea is that of "points of communication". For reason that are too lengthy to detain us here, there are two sorts of points of communication:

- M points, which receive force data and which send back positional data
- L points, which receive positional data and send back force data.

These two types of points of communication form indissociable pairs. All physical communication between two modules takes place via these points of communication. Only one M point can be connected to an L point and a point can only have one position at a given time. However, on the contrary, several L points can be connected to an M point. The force entering M is then equal to the sum of the forces emanating from the L points.

² Nevertheless, a digital space is a discrete one consisting of ones and zeros. It is no doubt true to say that, at the lowest level, there is a sort of perception-action stage or, more precisely, "action - reaction" and thus a stimulus – response-type system. But here we are at the frequency calculation level for each interaction, a level that we may take to be infra-cognitive (1050 Hz in general). Furthermore, the system consists of "dual" element; what one produces is perceived by its counterpart, which acts in a reciprocal manner.



Two MAT modules linked by a LIA module

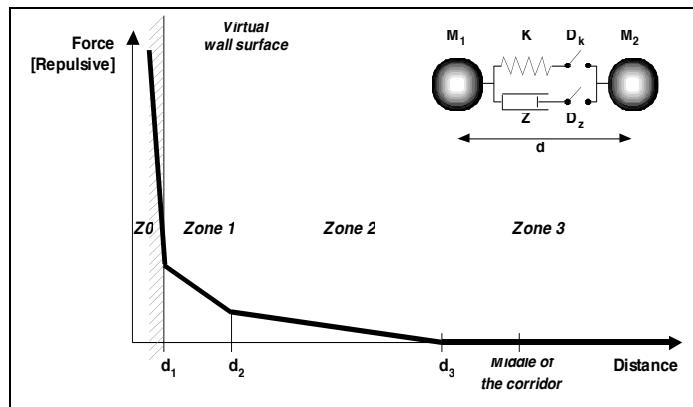
Given the concept of points of communication and their categorisation into two types, Cordis-Anima defines the two types of module that are necessary and sufficient to build any sort of network that satisfies the principle of action-reaction. We have then:

- MAT modules, consisting of a single point of communication M; these receive a force and generate a position
- LIA modules, consisting of two L-type points of communication; these receive two positions and, after comparing them, generate two forces; these forces are always equal and opposite and the principle of action -reaction is always satisfied.

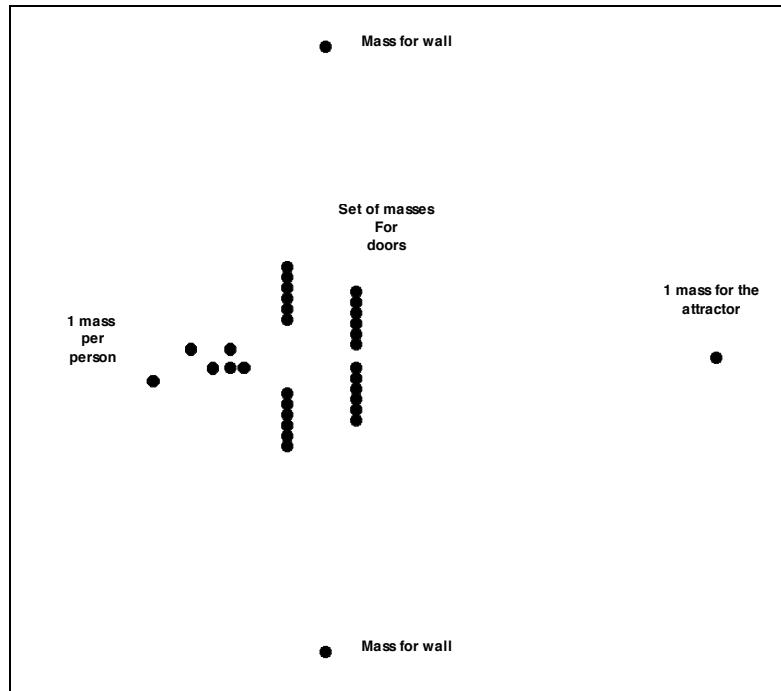
An assembly of MAT and LIA elements defines a Cordis-Anima network. From this we find recursively that the Mat and LIA modules can contain far more than a calculation linked to point mass in the case of the former and element interaction in the case of the latter. They can contain an entire Cordis-Anima network, provided that the nature of inputs and outputs is adhered to. Thus a MAT Complex Module computes the dynamics for any system (set of forces \rightarrow sets of positions) and an LIA Complex computes the inverse dynamics for any system (set of positions \rightarrow sets of forces).

Inversely, any object defined by the Cordis-Anima formalism can be written as a carefully selected network of MAT and LIA. To define the model is therefore to write down the Cordis-Anima network that fits it.

The basic Cordis-Anima link is a spring-friction type link. Its attributes are length L at rest, a stiffness constant K, and a viscosity constant Z. These links are also known as viscoelastic links. They can also be transformed into conditional viscoelastic links and this is necessary for dealing with crowd-type applications.

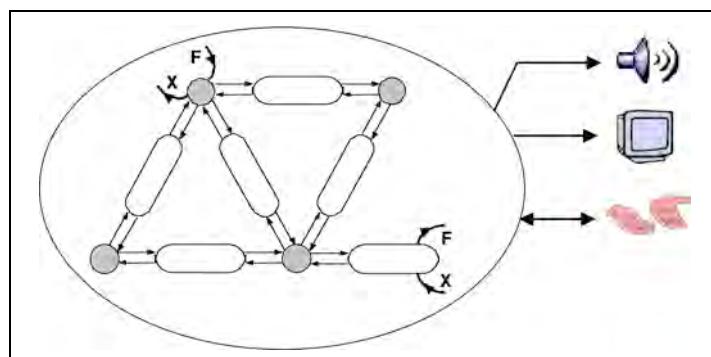


Interaction definitions: example of a link between two elements: viscoelastic-type collision (In this case, a linear piecewise interaction function for individual/wall links)

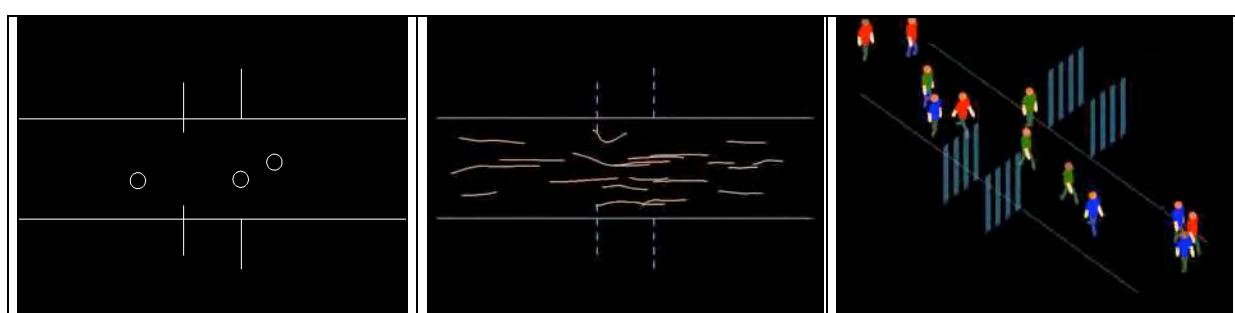


Model Space Definition
Hypothesis concerning the minimum elements required for the model

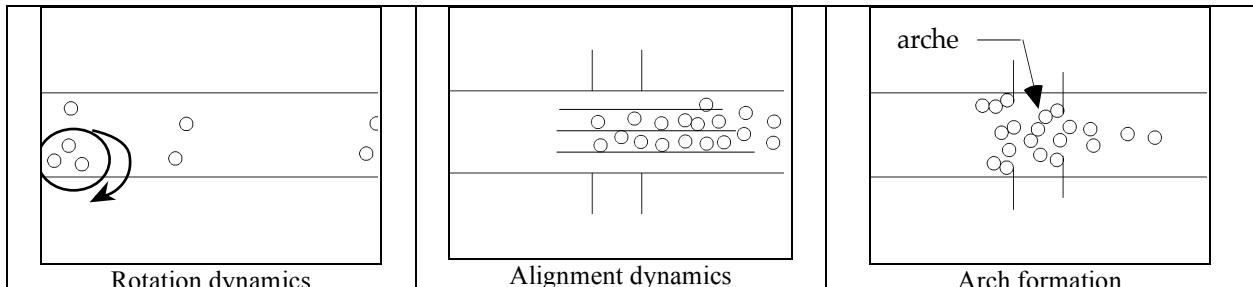
The ACROE modelling system enables any Cordis-Anima model to update itself in sound, visual or tactile-proprioceptive space. The model simulated can generate dynamics that update themselves in each space individually or in all three simultaneously. It seems reasonable to expect that the correspondence of the three will seem "relevant" with a "multi-sensorial coherence effect". This coherence should then stem from the underlying digital model that is common to the senses and the dynamic processes that give rise to them.



Principle of the ACROE physical model
Model space/Sensorial updating



Updating the model, here shown as computer animations
Three examples of visual renderings

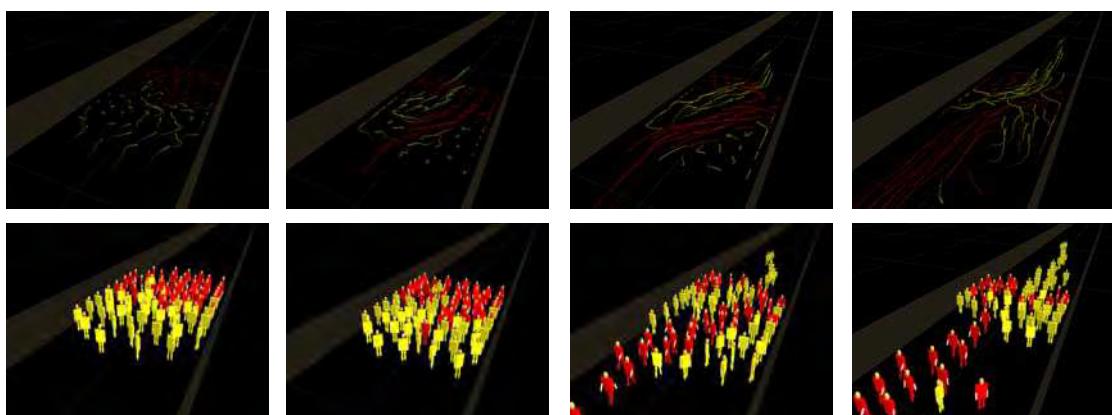


Digital observation
Characterisation of dynamic patterns, etc.

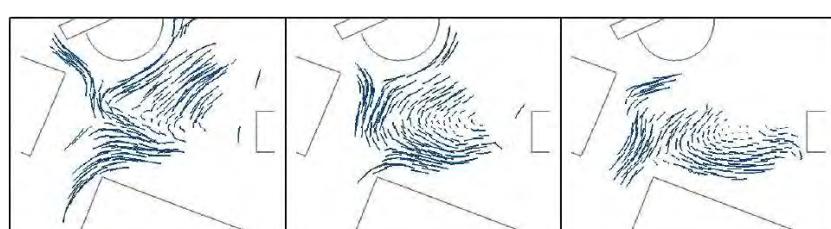
Observation work in the field together with digital experiments using the model on the double door system have revealed the following dynamics.

- Anticipation of how to avoid the obstacle by velocity adjustment (detours, slowing down and speeding up, and accelerations) over average and long distances
- Traffic jams with the formation of cohesive sub-groups and evacuation by avalanches to the sides of the jam
- Flow penetration, mixing and changing of possible objectives
- Turbulent flow with the formation of vortices, allowing flows to find an automatic solution to blockages.

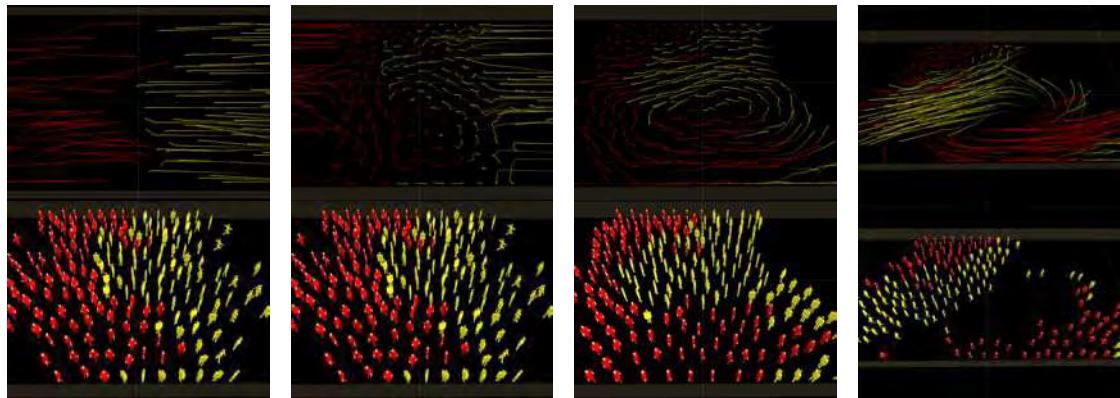
Much research has been carried out at the ACROE since the early work (in particular by François Thil and Annie Luciani). Some examples of this are given below showing spaces of different types and especially the varied modes of visualisation. Each representative method has its strong points. Some enable us to see collective dynamics clearly. Others help us perceive individual variations. For example, the technique of filaments (people represented by points, but featuring an afterglow of a few tenths of a second, enables us to see their velocity and their trajectory, highlights halts, velocities, the slightest changes in direction, criss-crossing paths, minor reversals, and alignments. Inversely, this does not describe the rotations of individuals. Group overview becomes very arduous, but it does bring out all the individual dynamics, no matter how small they may be.



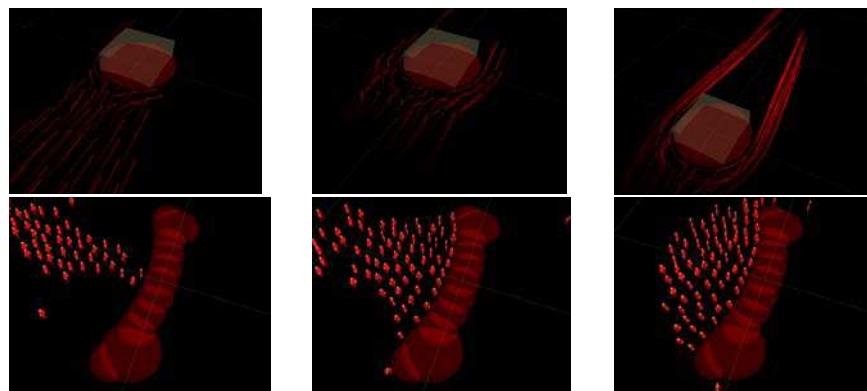
Simulations of two dense flows meeting in a narrow street: trajectory visualisation and humanoid visualisation



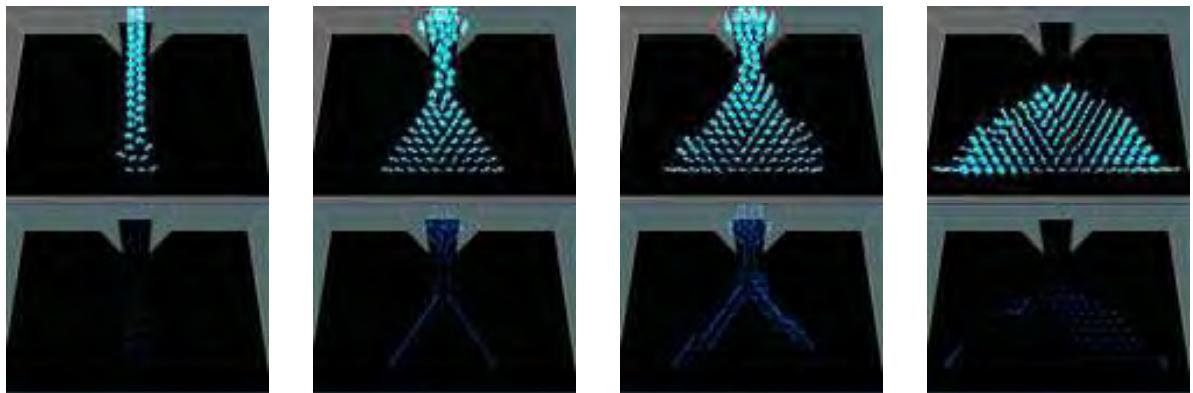
Simulation of the meeting of three flows in a public space. Representation of the trajectories with regard to the velocity of the persons.



Simulations of the meeting of two very dense flows: trajectories and humanoids



Simulation of a flow coming up against a large fixed obstacle



Simulation of a flow meeting a large fixed obstacle with piling up, surface avalanches and internal collapses

4. A system of relational intentions

The model features multiple virtual situations that are easily updated in sensorial dynamics. In addition to being a helpful tool for understanding phenomena and a predictive tool for dynamics it brings us a radically new way of thinking about space.

- Any physical model can be conceived independently of the senses via which it will be updated. The same model will generate sound, visual animations or a driving force
- Any physical model is intrinsically dynamic. When it is not dynamic we say that the system is at rest, awaiting fresh spontaneous or experiment-induced activity

- Any physical model is intrinsically relational. When we define modules we define both the elements and the relationships between those elements. It is these relationships that are the main vectors for content.
- Any physical model can be interactive via reactive mechanisms that enable an external element – either human or machine – to become, in a way, an element of the model.

It is the application of the foregoing principles to the design of sensorial, built and active space that enables us to understand the reversal that this logic implies. Let us take a simple situation. For example, when modelling corridors or the space between double doors, we had to define walls. To define a wall, we can imagine not merely a description (such as where it is, whether it's made out of concrete, how high it is, and so on), but relational properties, which would tell us for instance that it is impossible to go through it, that we can lean on it to take a rest, that it can be used as a guide for paths, and so on. In an observational-type description, the wall is not defined just as a separate entity, but as a set of relational situations involving one element that we call "wall", another that we call "person" and a link that defines possible and impossible actions. These elements are defined from the outset as a function of their links with others. The links are dynamic and non-sensory. In the example of the wall we can easily imagine that its role as a guide for path-making is not concretised by vertical material system, but why not by a sound system or a simple variation in the ground or perhaps a light signal. The non-penetrability function can be satisfied by a semiographic element showing that it is forbidden to enter, and so on. Writing down the link never predetermines the material nature of the elements of the built environment; it merely enables us to interrogate them in terms of the relationships that they are to have or not to have with other elements, including users. Architectural objects are thus defined upstream of their material nature in a network featuring relationships evolving according to an actor-network system (cf. Bruno Latour). Later, they are updated in the course of the simulation using the model.

The very nature of the model makes it capable of representing multiple virtual realities that merely need to be updated in sensory dynamics. These in turn can be observed and will have their tale to tell. It should not be thought that the generator aspect of the model means that we have no control over what is produced, but it would also be wrong to think that, on the contrary, one benefits from total mastery at all times. Everything depends on the model, its construction, the complexity of its elements and the quality of the experiments, which build up data enabling the model's parameters to be fine-tuned. When the model is applied to space, it would be a mistake to adopt either of these attitudes. The first would be to use a computer model purely in order to take advantage of its generating capacity. We could run it until the outcomes were satisfactory without seeking any control over the elements of the model and real-world phenomena. The other attitude would be to use the model as a tool that we would refine more and more until we reached a single target dynamic. There has to be a happy medium. Let us consider the field of public space. Usually this is not in state of totally unforeseeable chaos and nor is it perfectly organised under constant and complete control. It often falls between these two extremes. The case of path dynamics reveals this. There is no question of defining a space within which everyone has to walk in the same way and in the same place, but nor is it a question of defining a space with no notion of correct use and potential appropriation. Pascal Amphoux uses the terms *ménager* and *manager* for this. Designers must at once manage space and come to terms with it. The same applies to a model: it is reasonable to want to control to some extent the simulated dynamics whilst at the same time allowing them to be multiple, varied and sometimes surprising.

Both in terms of the *in situ* observations and the computerised simulations, design would no longer involve reference images but rather relational intentions (cf. Nicolas Bourriaud). These call into question the simulated data as much as the social and sensorial data. Better still, they can be cross-referenced with data and linked to it. Description enables us to define, the model enables us to organise space. In fact, they are structural intentions that one can define at the beginning of an architectural or town-planning project, which can therefore form its foundation, and from which they can find support and develop the project in a coherent dynamic movement. For example, we can ask what relationships should be defined between one space and another in terms of sound, visual or temperature levels or in terms of motor vehicle accessibility or, above all, the expected social interaction from the project, and so on. Moreover, relational intentions can give rise to a debate among designers, clients and users.

By linking together description and the model in this way project management is no longer bound to a linear time frame, one that assumes that design is a phase that must inevitably take place following a phase of analysis. We find ourselves in a process that is defined as recursive over time, which seeks to formalise an intention by constant cross-fertilisation between the activities of analysis and design, to such an extent that they can no longer be differentiated according to these terms. This methodological process must enable us not to oppose things that are generally separated. On the contrary, it must enable cross-fertilisation to take place: cross-fertilisation of

analysis and design, of reality and virtuality, between description and model, between observation and experiment, and between objects and relationships.

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6. Notes

The **Cresson** laboratory's research focuses on the perceptible environment, and architectural and urban atmospheres, advocating a qualitative approach that may influence design strategies and processes. After concentrating initially on the soundscape, the laboratory extended its scope in the 1990s to include the many dimensions of in situ sensory perception (light, heat, smell, touch and bodily movement) with original pluridisciplinary methods at the meeting point between human and social science, architecture and engineering.

The **ACROE** has produced a method of image and audio creation known as Physically-based Model Synthesis. It has also pioneered in modular multisensory synthesis and force feedback gestural control. Its research in Virtual Reality has applications in Computer Technology and Artistic Creation, particularly Music & Animation, as well as in robotics, telecommunications, education and industry.

The Recuperation of Public Space: A Closer Look at Bogotá, Colombia

(2011)

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The Recuperation of Public Space

A Closer Look at Bogotá, Colombia

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Preface

Since 1999, the city of Bogotá, capital of Colombia, has won nearly a dozen international awards for innovative urban planning, including the prestigious San Marco Golden Lion award, given at the 10th Venice Biennale. For a city once plagued by social disorder and crime, this represents a remarkable comeback. But how have Bogotá's urban interventions performed for residents? The research presented here draws on qualitative methods developed at the Centre for Research on Sonic Space and Urban Environment (CRESSON) at the Graduate School of Architecture in Grenoble. These methods encompass both the large and small scales of urban experience

in an effort to experience and describe both the broad sociopolitical picture of Bogotá's urban renewal and three paradigmatic projects: a prizewinning park, a public library, and a central avenue. Using tools ranging from traditional historical analysis and architectural drafting through recorded in-situ interviews and multimedia urban transects, we seek to understand these phenomena from an international perspective and from the perspective of the people who use them daily. The results provide not only a critique of what has been done but also insights for future planners and architects tasked with reshaping the world's growing cities.



Researcher Camilo Cifuentes interviews a vendor in front of Biblioteca El Tintal, April 2, 2009.

Introduction

At the 2006 Venice Biennale, the jury gave the Golden Lion Award in the category of Best City to Bogotá, the capital city of Colombia. The city of Bogotá was competing with sixteen other international cities—including Barcelona, Berlin, Caracas, Istanbul, Johannesburg, Shanghai, and New York, for the award—which honors communities for their efforts to improve residents' quality of life. All of these cities presented various solutions to the growing challenges facing their communities. Bogotá was honored with the award based on its successful recovery of public space, its network of cultural facilities, and its advanced public transportation system. The jury wrote compellingly that the Colombian capital might serve as a model for other communities and as an example of ideal consistency between urban space and society. According to Richard Burdett, director of the Biennale, the prize was given to "the most intelligent city, a city which thoughtfully considers its future in a developing country affected by poverty and criminality and, thanks to a few inspired politicians, manages to look forward."

In addition to the developments in public infrastructure, Bogotá has shown important progress in areas such as poverty reduction, security, education, service provision, and social inclusion. Although the city still faces serious challenges, these changes had a significant impact on the city's social dynamic. Recently the most visible projects developed in the city have gained substantial media attention, and due to these transformations the Colombian capital has become an international model in circles of urban planning and an example of good governance and development.

It is therefore essential to examine the ongoing processes taking place in this South American metropolis. Bogotá today is a perfect illustration of changes in the urban environment that reflect deep and complex political, social, and cultural processes—processes rooted in transformations that began in the

early 1990s when important sociopolitical changes took place and engaged administrations decided to take responsibility for urban problems that had been neglected for years.

Such a transformative process of urban development raises many questions about the origins of the entire process, the discourses that have directed the development plans, the policies proposed by the city authorities, the scope of these policies, and their consequences. Finally, do the results achieved, and their impacts on the everyday life of citizens, confirm the theories and predictions of the experts?

This research is based on investigative methods and ideas developed by the CRESSON Laboratory (Centre for Research on Sonic Space and Urban Environment), part of the French National Scientific Research Institute (CNRS) located at the Graduate School of Architecture in Grenoble. At CRESSON, we focus on interdisciplinary studies of perceptible environment and architectural and urban "atmospheres." Our research embodies a qualitative approach capable of supporting and influencing design strategies and processes. These notions directly concern our study of Bogotá, whose main goal has been to describe the complex articulations among urban, political, and experiential projects. Our approach implies a sensible and sensual relation to the physical world, and it places the inhabitant at the center of the urban configuration.

In order to observe the transformation of Bogotá, we carried out interdisciplinary research that aimed to understand the complexity of the city's development and its implications for urban phenomena at different scales. We focused on two main aspects: first, the large-scale (or global) factors that made the changes possible, and second, the impact of paradigmatic projects on particular parts of the city. Concerning the large-scale, we analyzed the most important sociopolitical issues behind the transformation process. Turning to the local, we observed

the impact of urban interventions in three particular zones of the city that were the subject of important physical transformations.

The Large Scale: A Global Approach

The first goal of the global approach was to build from the general context a cognitive tool that would allow us to examine the problematic of the city before and after interventions at the metropolitan scale. The work consisted of research and analysis of a selected bibliography including geography, history, economy, politics, and town planning as they bear on the socio-political dimensions of the process as experienced in Bogotá. This tool has proved useful in understanding the objective causes of the changes of Bogotá, identifying the discourses, hypotheses, and principles that have directed the city's development, recognizing the development strategies (political, economic, urbanistic) carried out by successive administrations, and analyzing both the city's planning strategies and the discourses applied to them by urban experts.

To comprehend Bogotá's situation today, it was indispensable to take account of two aspects that have shaped the city. On the one hand are the concrete causes of transformation. On the other are the experts' discourses that, along with the media's representations, present the city as an outstanding example of urban development. In this work we juxtapose the two, subjecting both to critical analysis.

The Small Scale: Local Approaches

Three zones of study were selected to test our research methods at the meeting point between human and social science, between architecture and engineering science. These paradigmatic examples of urban intervention include the Avenida Jiménez de Quesada (Jiménez Avenue), a comprehensive urban project including construction of a new public transporation line on a strategic downtown axis, its integration into a context of historical heritage, and the recovery of public spaces; the Parque Tercer Milenio (Tercer Milenio Park), a controversial project in which a large district of the historical center was demolished to make way for a new metropolitan park; and the renovation of the Tintal zone, a conjunction of emerging urban and architectural projects that are generating a new urban configuration in a peripheral sector of the city that formerly lacked public services and cultural facilities. (An adjacent area is studied by De Pirro et al. in Section 2 of this volume.) Each intervention has had significant consequences for mobility and the physical connections between distant parts of the city, the transformation and revaluation of social and built heritage, the restoration of public spaces and the emergence of new conceptions of the urban sphere, gentrification and displacement, and even the inhabitants' mental representations of urban change.

To understand how these three sites are experienced following profound urban transformations, we have used not only classic cartographical and typo-morphological analysis but also a set of methods designed to get as close as possible to the urban "*ambiances*" as experienced by the inhabitants, including direct observation, field notes, recordings (sound, photographic, and videographic), interviews, and commented walks with inhabitants. The entire work is synthesized through an original form of multimedia presentation that we call *urban transects*: these take the reader through the city as well as through our research. Thus the total research work comprises not only this report but also the transcripts of our commented walks and interviews, recordings of fifty sound sequences and fifty-five videographic sequences, and the multimedia transects. The sound and videographic sequences are provided with this report.

Chapter 1

Urban Transformations

A Large-Scale Analysis

Objective Causes of Change Versus Mystification of the Discourse

Today, cities are a like metaphor of the theater; they present new ways of living that are renewed and reinvented everyday. They both concentrate and create tension. Though each metropolis develops uniquely, common patterns can be identified. The changes generated by industrialization, demographic explosion, globalization, and new technologies have fashioned unique transformations of urban space. The city has been replaced by the metropolis. The network replaces the *locus*. Meanwhile, the *tabula rasa* or Haussmanian approach, typical of modernist thought, is no longer valid. While young cities like Los Angeles managed to test the expansion principles of network cities, they remain exceptions among the world's large cities. Rather than anticipating future growth, most metropolises today face uncontrolled development.

Bogotá, like many metropolises that have seen a demographic explosion since 1950, did not anticipate its development and thus presents complex questions. Traffic congestion, violence, and pollution became critical issues in the Colombian capital, in addition to poor governance, poverty, and economic inequality. Yet the city was recently praised as a "model of conviviality and urban renewal." (Montgomery 2007). Obviously the city has experienced a significant transformation.

Bogotá's urban project has sparked considerable study as well as political debate. Just a few years ago, studies of the city presented it as representative of the contemporary urban problematic (Torres 2000). It was described as the setting for "the expression of the most acute conflicts in the economic, social, political, and spatial order, and even of the ideological and cultural order" (Torres 2000). What makes the case of Bogotá remarkable is that, in a rather short period of time, the city managed to find solutions for some of its most challenging problems—even

as other critical issues, such as the provision of shelter and the reduction of poverty and inequality, remain unsolved.

Recent advances in security, public transportation, mobility, education, service provision, and public infrastructure have had a tremendous impact on the city's dynamics. Among the projects that have gained considerable media attention are the civic culture campaigns, the bus rapid transit system, and the network of bicycle paths. The library system, the renovation of public spaces, the construction of educational infrastructure, and more recent social programs also have been an essential part of the city's development. All in all, when we talk about Bogotá today, we no longer describe a city in crisis but, instead, an example of good governance and development.

In order to understand the complexity of the city today, it is essential to examine two aspects that have shaped Bogotá's image in recent years. On the one hand, there are objective causes that have determined these changes; on the other, the political discourses concerning the city, along with the media's representations, both of which present the capital as a model. In this report, we juxtapose the most important facts of Bogotá's transformation, based on documentary sources and interviews, with the image of the city created by the mystified discourses of the media, political speeches, and the professional community of urban planners.

The Facts of Change

Most publications and exhibitions that describe Bogotá's urban transformation focus on the most visible results of the city's policies and projects. Certainly there are some original and successful initiatives that merit debate and media coverage, but generally, Bogotá's urban planning policies and projects—although frequently of high quality—are not particularly innovative. The city's urban planning is highly influenced by the Barcelona model,

the discourses about the city emanating from urban sociology, and in a general way the universal objectives of the urbanized world, as represented in documents such as the Istanbul Declaration on Human Settlements. Thus what is really remarkable is the fact that Bogotá is one of the few middle-income cities that has shown exceptional advances in governance and, consequently, in development. Governance has notably improved, and the city has clearly shifted to better political practices, including increased transparency, accountability, and responsiveness. However, when analyzing the influence of good governance on the city's transformation, one must tread carefully. Neoliberal discourse assumes that good governance is a necessary product of democratization and decentralization. However, in Latin America, where democracy has emerged as the most common political system in recent years and governments have stimulated decentralization, very few cities have experienced improvements in governance. In Bogotá we observe advances that cannot be explained simply by democratization or neoliberal reforms; rather, the city's case represents a more complex panorama.

In order to get beyond the political discourse, it is necessary to recognize that there was not a single turning point in the city's transformation. Contrary to our first hypothesis, that a change in the urbanistic culture (and the formulation of a new urban plan) triggered the process of development, we observe that the creation of the plan was indeed the product of many other political and cultural transformations. Further, Bogotá's urban change cannot be explained as a mere consequence of the city's urban plan. The changes that made Bogotá an admired example were the result of a series of political and social changes, including deep transformations in the city's urban planning policies and a series of engaged local administrations. None of these factors independently could have sparked the conditions for critical change. The case of Bogotá's transformation must be understood as an ongoing historical process that began in the late 1980s and was not merely the product of a few inspired politicians, a singular vision of the city, or the recommendations of multilateral credit organizations.

Alan Gilbert (2008a) proposes five concrete causes of Bogotá's transformation: good mayors, the end of clientelism, the advent of technocracy, programmatic continuity, and increased economic resources. Based on his reading of the city, Gilbert argues that the quality of a city's administration can be improved rapidly, but that the recommendations of development banks can be promising only if they go hand in hand with a number of other policies, and that the changes imply both increased taxes

and increased spending. He also writes that a certain level of technocratic management is essential, and that it is important to have mayors prepared to take unpopular measures. His conclusions correspond, in a broader sense, to four factors that are identified as the most significant for the city's change: the 1991 constitutional reform; the combination of democratization, decentralization, and privatization; the new regional plan; and successive city administrations themselves.

The New Constitution of 1991 and Other Reforms

The 1980s are remembered as the darkest period in Colombia's recent history. The country was overwhelmed by violence, the product of an ongoing war against drug trafficking and lingering sociopolitical conflicts, financed heavily by illegal drug profits and involving both right-wing militias and leftist guerrillas. While the conflict in Colombia has been concentrated mainly in rural areas, cities were not spared but, instead, saw violence increase dramatically during this decade. Although Bogotá did not experience the extreme violence seen in Medellín and Cali, by the early 1990s it was considered one of the most violent capitals in Latin America. By the mid-1990s, Colombia presented a "rupture of the legal order, caused with varying intensity by the violence of [government] institutions that only protect the establishment and also, with even greater impact, by those who are excluded from the establishment and fight to enter it or defeat it illegally (Díaz Arenas 1993).

Faced with this critical situation, a leading national civic association called for a movement toward reconciliation. Well received by the establishment and the media, this led to a national referendum. The group proposed broad constitutional reforms, and in 1991 a new national constitution was adopted, promoting the leading principles of a democratic and participatory state. Two main principles define the new constitution. One is neoliberalism. For example, the constitution refers to the internationalization of the economy and the institutionalization of the national bank as a decentralized entity. The second is populism. One of the remarkable shifts in Colombian politics during the period of constitutional reform was the emergence of the armed insurgent group M-19 as a third political force and a major influence on constitutional reform. The crisis of traditional political parties in Colombia allowed for the rise of leaders who did not have political backgrounds within the establishment. Such leaders, says Tafur Galvis (1993), "create the illusion of having the answer to urgent problems or of vindicating accumulated frustrations." In practice, the result of the new constitution is "a dichotomy between social speech and the classist fact. A reluctant ideological definition and an adaptation to the neoliberal model

with *social sense*." (Tafur Galvis 1993). Accordingly, the author defines the framing of the new constitution as *neoliberal populism*.

The new constitution represented a radical change in the administration of urban development. On the one hand, as will be discussed later in this report, the neoliberal ideology implied critical changes in municipal administration, especially in the public services sector. On the other hand, the constitution propelled a transformation of the policies and operations of the state with regard to urban development. A key change was the move toward decentralization, in which the state declared municipalities the principal political and administrative entities and gave each municipality the responsibility to plan its own development and urban policy. Even before the constitutional reform, another important political transformation was the democratic election of mayors, instituted in 1988. These changes accorded well with the international climate, as multilateral credit organizations like the World Bank and International Monetary Fund were advocating decentralization. At the same time, local political elites throughout Colombia hoped for increased funding from the national budget, and the central government, faced with its own incapacity to provide public services, preferred to reassign these responsibilities to the municipalities. It is in this context that local autonomy was promoted. Three consequences in particular influenced Bogotá's transformation: the search for fiscal sovereignty and resulting budget transfers; the passage of regional legislation; and changes in the role of the city council.

Fiscal Sovereignty and Budget Transfers

The approval in 1993 of the new Organic Law for Bogotá (*Estatuto organico de Bogotá*) laid the foundation for the success of subsequent municipal administrations. Designed by Mayor Jaime Castro (1992 and 1994), the law determined the functioning of the city according to the new constitution's plan of decentralization. The administration thus could begin a significant reorganization of public finances. The municipality was allowed to increase the income received from local taxes, improve the procedures used to determine property values, and apply an additional tax on gasoline. Further reforms, some promoted by Antanas Mockus, permitted the city to close corrupt and ineffective institutions, install an efficient tax collection system, and increase the city's income by successfully encouraging citizens to pay their taxes.

In 1992 the city was practically bankrupt, yet by 2004 "the income of the city had increased from less than the 2 percent of the GDP to more than 4 percent." (Gilbert 2008a). Public spending grew from 3.8 billion Colombian pesos in 1990 to 15.9 billion in 1999 (Gilbert 2008a). Most of this total went toward public

investments. Thus, achieving autonomy and efficiency in fiscal management contributed directly to the city's physical transformation.

The city has also benefited from financial transfers due to a constitutional decree that requires the central government to distribute part of the national budget to municipalities. However, the impact of these transfers on the city's finances is relatively small, because a significant proportion of national tax revenue is collected in Bogotá.

Regional Legislation

A second key aspect of constitutional reform for municipal administration was to make every local government responsible for administering its own territory. In the context of Colombia in the mid-1990s, urban planning was finally recognized as a legal requirement and as a condition for development. The previous experiences of urban planning in Bogotá were, with some exceptions, rather calamitous. Urban researchers Juan Carlos Del Castillo and Jose Salazar (2003) explain how the 1960–2000 period represented a crisis of the development model, as the public sector demonstrated its incapacity to formulate serious policies regarding regional management, the use of land, and urban development. Simultaneously the private sector enjoyed conditions of great economic liberalism. The urban planning strategies of this period were characterized by speculative patterns in the management of urban land use, a lack of a deliberate regional policy, a lack of clarity in the role of urban planning entities, and resistance to the formation of strategies that would lead urban planning toward defined objectives. The government institutions responsible for urban policies promoted an approach based on residential development that neglected important aspects of urban planning including transportation, land use, public services and facilities, economic activity, and regional organization.

In this context, by the mid-1990s the fragility of Colombian urban planning was recognized, as were the lack of cooperation between academic institutions and government in urban research and the inadequacy of the public culture to support meaningful urbanistic actions. Therefore, it was seen as necessary to radically transform the urban planning exercise in Colombia and to give to local administrations the appropriate tools to direct urban development. (Del Castillo and Salazar 2003)

Since then, urban planning throughout Colombia has seen progress. By constitutional mandate, every municipality is responsible for producing and implementing an urban plan, or Plan de Ordenamiento Territorial (POT). Law 388 of 1997 describes the principles that control regional and urban development

and establishes "the mechanisms that allow the municipalities to promote autonomously the management of the territory, the equal and rational use of land, the defense of the ecological and cultural patrimony located in its territory, the prevention of disasters in high-risk settlements, and the execution of efficient urbanistic actions."

In Bogotá, the production of the mandated new urban plan coincided with the administration of Mayor Enrique Peñalosa, who hired a group of experts who shared his perspective and many of whom had worked together for years as consultants and researchers.

Even though municipal autonomy allowed the city to plan its own development, it also represented an obstacle to the advancement of regional planning. The Peñalosa administration (which considered the consolidation of a regional area a precondition for the city's development and competitiveness) made great efforts to create a metropolitan area that would include all the municipalities neighboring Bogotá. Yet their efforts were largely in vain. Since the constitution favors municipal autonomy, the conception of a metropolitan area remains difficult to achieve. While the poorest of the contiguous municipalities would appreciate the benefits of annexation by Bogotá, the wealthier ones fear losing power and worry that Bogotá will export its poverty. Despite these obstacles, there have been important advances in the political definition of a metropolitan area.

New Roles for the City Council

In the past, one of the biggest challenges facing the city government was the relationship between the mayor and the city council. Mayors were often compelled to co-administer with the council. Therefore essential decisions for the city had to be negotiated with a group that historically was known for corruption and clientelism. The Organic Law changed that, giving the mayor greater autonomy in decision making and diminishing the council's influence.

Former Mayor Paul Bromberg, who succeeded Antanas Mockus in 1995, argues that "Bogotá changed because it has been governed by technocratic elites" (Gilbert 2008a). He and many others contend that one of the fundamental reasons for the city's change was the efficient management of the city irrespective of political or ideological considerations. This position is debatable, as it is hard to separate the recent political transformations from neoliberal ideology. However, it is accurate to say that in recent years the city has been managed largely without clientelist political maneuverings and that transparency seems to have increased. One important aspect of that change is precisely linked to the new functions

of the city council. Formerly, the council had great influence in the management of public enterprises, and city council members were allowed to allocate a part of the budget to individuals, organizations, or enterprises. They no longer enjoy these powers: as a result, the public sector companies (whose directors are appointed by the mayor) are more independent of their influence. Recent directors have in fact been chosen on the basis of technical criteria (Gilbert 2008a), and the companies' performance has reflected that. There remain concerns about the roles and division of power among the mayor, the local mayors of the city's twenty districts, and the council, but at least in this sense it can be said that technocratic management has benefited the city.

Democratization, Decentralization, Privatization, and Civic Participation

Globalization is ideological. In wealthy countries, elites generally aim to replace the welfare state, while in the developing world the possibility of genuine development is thwarted by new forms of dependency and capital accumulation (Brand and Prada 2003). In Colombia, political reforms, and more generally the modernization of the state, have taken place in the context of a very liberal management of the economy, marked by free trade, increased flexibility of markets, and the deregulation of production, cash flow, financial information, capital, and labor relations. (Brand and Prada 2003) More generally, as already noted, political reforms such as democratization and decentralization have reflected the recommendations of multilateral credit organizations and neoliberal ideology. Decentralization in turn has promoted another hallmark of neoliberalism, public-private partnerships and privatization of public services. As Brand and Prada (2003) remark, "The progressive sense of modernization has been adopted by an ideological movement that sees the State as a heavy and inefficient apparatus that restrains the social dynamics and represents an obstacle for development." They suggest that local planning in Colombia should be analyzed in this context.

Neoliberal thought promotes the improvement of governance as a precondition for achieving development, on the theory that increased democracy, decentralization, and privatization imply good governance, and that a natural consequence of good governance is a decrease in poverty. In a general way the Latin American experience refutes these claims, yet Bogotá is a special and complicated case, because the city has indeed markedly improved its governance and reduced poverty. Still, it is essential to understand Bogotá's transformation independent of the ideological pronouncements of neoliberalism, because the facts are more complex: while Bogotá has certainly succeeded in some areas, its democracy continues

to present serious challenges; privatization remains highly controversial; and the reduction of poverty may not be as dramatic as official indicators suggest.

There have been two fundamental consequences of democratization in Bogotá's political structure: the popular election of the city's mayor and the creation of an important number of participatory mechanisms. Bogotá has been fortunate in electing effective mayors in the last two decades. During the last four administrations, Antanas Mockus (who served twice), Enrique Peñalosa, and Luis Eduardo Garzón have all promoted ambitious development plans whose accomplishment was made possible, at least in part, by improvements in governance and by growing interest in public affairs. If the popular election of mayors is a consequence of democratization, it must also be said that the mayors themselves have contributed greatly to democratization. Even though the last three mayors belonged to diverse, even antagonistic, political sectors and held very different views on urban phenomena, they shared a common concern for strengthening the public sphere and making the city more democratic. They also recognized the importance of continuing successful policies, even as each administration emphasized its own priorities and objectives. The first Mockus administration aimed to reinforce civic participation, promoting a project of "civil culture" that successfully transformed interactions between the city's inhabitants and local authorities. The Peñalosa administration focused on investing in urban infrastructure, with an emphasis on creating safe public spaces. Most of the city's emblematic projects were completed or contracted under Peñalosa. Finally, the Garzón administration presented a development plan that gave special emphasis to social issues like health care and education that would benefit the poorest sectors. Overall, nearly all of Bogotá's citizens have benefited from these different policies; despite their differing visions and particular political interests, all four administrations stressed issues essential to the city as a whole, although admittedly the poorest and most vulnerable received the fewest benefits, as their most urgent needs remained unmet.

The second major consequence of democratization has been the creation of mechanisms for civic participation. Civic participation and accountability—especially efforts that allow the poorest sectors to interact with government and take part in decisions that affect them—are seen by multilateral organizations as crucial factors for improved urban governance. In Latin America, participation has traditionally been weak and limited to an advisory role. By contrast, Bogotá has seen important developments in this sphere, and the public discussion of local development plans has had a significant impact on them—even though, in reality,

participation remains quite limited, especially among the city's poorest sectors.

The quality of participation, and hence of urbanism in Bogotá, has been shaped by the oscillation between administrative styles. The Mockus and Garzón administrations supported something like a bottom-up strategy, while the Peñalosa administration preferred a top-down urbanistic approach. Thus important advances in the consolidation of a participatory society that started during the first Mockus administration were slowed down under Peñalosa and resumed under the second Mockus administration and the Garzón administration.

During the first Mockus administration, very few visible urban projects were undertaken. Most initiatives focused on transforming aspects of social, rather than physical, space. Though some critics give little credit to the administration's "civic culture" programs because they failed to achieve Mockus's vision of dramatic transformation, researcher María Teresa Garcés points out that they helped make Bogotá "the city of Colombia where civic participation is most developed" (Garcés 2008). Garcés also argues that "civic culture" might have had a positive influence on governance, the identification of inhabitants with the city, and a growing interest in public affairs. They were ultimately even more successful in promoting respect for the law: in that sense, as urban researcher Fernando Viviescas (2001) suggests, civic culture may even have some negative effects, in that it forms obedient, unquestioning citizens rather than critically engaged actors.

Despite the improvements in participatory mechanisms, levels of participation remain low. Why? Garcés (2008) suggests that distrust is an important factor. There seems to be a general skepticism about the potential for real change, as well as deep distrust of institutions and politicians and a feeling that "many public decisions are made using clientelist criteria or due to economic globalization, with conditions imposed by international organizations, and not always in consultation with the specificity of the community and its interests." Other factors noted by Garcés include the lack of remuneration for participation in civic associations, the persistent clientelism that discourages formation of an active citizenship, and—paradoxically—increasing public satisfaction, which makes participation seem less urgent.

Nurturing civic participation depends on political will, a flexible political culture, and rising education levels. The work is far from complete. Yet Bogotá has already achieved important advances in electoral independence, growing public interest in urban affairs, and the creation of key participatory mechanisms

that include local planning councils and citizen's assemblies, civic advisory committees, neighborhood coalitions and watch groups, local youth and cultural councils, children's rights watchdog groups, a women's advisory council, and of course, public accountability of the mayor, the city government, and private contractors.

While decentralization has produced political changes such as those discussed above, it has also promoted the privatization of public services and the formation of a growing number of public-private partnerships. These trends have tended to diminish the state's presence in Bogotá's public affairs, though the public service sector still has strategic influence on both social and urban policies (Coing 2005). In fact, the impacts of service sector privatization both corroborate and contradict the arguments made on both sides of the debate: on the positive side, that privatization would limit corruption and mismanagement, and on the negative, that it would lead to the exclusion of some social sectors and produce new forms of segregation.

The reorganization of public services was determined by the constitution of 1991 and by Law 142 of 1994. Both emphasized the state's responsibility to supply public services while introducing four changes: eliminating monopolies, opening public services to the private sector, reforming economic management, and creating regulatory mechanisms. (Coing 2005). All the public service enterprises, with the exception of water management, which remains controlled by the public sector despite efforts to privatize it, were subject to different forms of privatization. In telecommunications, the public sector continues to compete with private companies in the provision of Internet and telephone services. Forty-nine percent of the state's electric services were sold to three different enterprises, while others also entered to compete in this area. Waste management has been completely contracted to private enterprises, including Venezuelan, French, and Argentinean companies, and is now 100 percent financially independent. Of the two national companies that previously controlled gasoline, Ecopetrol was sold to a Spanish company, while 62 percent of EEB was privatized. Finally, the public transportation system has historically been in the hands of the private sector. The Transmilenio, the successful new bus rapid transit system, is a public-private initiative in which (according to former mayor Jaime Castro; see Escobar et al. 2007) the public sector finances 85 percent of the system's costs while receiving only 4 percent of its revenue.

These reforms were expected to reduce inequality in the provision of services, and consequently both social and spatial segregation, as it was generally

anticipated that market mechanisms would assure the universal coverage of public services. Yet in fact, while the reforms guaranteed the enterprises' financial stability, the cost in terms of social equality was high. While the principle of competition theoretically assures universal coverage of public services, in practice the question becomes: how can total coverage be achieved given that the poorest sectors are the least profitable and that private enterprises prefer to keep their most profitable clients? According to the law, the city must directly provide a public service if after a bidding process there is no offer from any other enterprise to do so, or if it is proved that the costs would be lower if the services were provided by the city. So far this has never happened in Bogotá. What has ensured the expansion of public service networks and made them accessible to the poor are government subsidies and contributions from the richest users. In Colombia, public services for the poor historically have been financed in large part by the state, along with supplementary payments from the wealthiest customers. The system has certain weaknesses. First, subsidies are distributed based on a socioeconomic classification of the city's districts from 1 (poorest) to 6 (richest), a practice that reinforces spatial segregation. In addition, because individual families do not necessarily match their district's socioeconomic profile, some families do not receive the subsidies they need, while others receive them unnecessarily (Coing 2005).

Another problem is that the recent reforms, which promote competition and the financial autonomy of public services, put the system itself in danger. On the one hand, competition diminishes the price paid

Bogotá's bus rapid transit system, called Transmilenio, quickly attracted riders and has provided a model for other cities.



by the largest consumers and therefore their contributions. On the other, the policies that promote the financial autonomy of these enterprises have also imposed a limit on the amount of supplementary contributions paid by the wealthiest users (Coing 2005). The reduction of subsidies has had an important social impact; since the reforms were enacted, the spending on public services has increased dramatically for the poorest sectors. While the poorest families spend 11 percent of their monthly budget on public services, the richest sectors only pay approximately 5 percent (CID 2005). Reforms have been useful to ensure the financial stability of these enterprises, but today the inequality of public service provision is alarming. Although the indicators show that the city's coverage of public services is very good, these indicators do not say anything about the quality, the price, the continuity of the services, and the political implications of service provision. The quality and continuity of the services do seem to be rather homogeneous for all users independent of social factors. This is not the case regarding cost of services, which is indeed inseparable from politics. Social geographer Vincent Gouëset (2005) says (regarding the water management service, though his statements may apply to public services in general) that service provision implies social and political challenges, and that the problem is no longer just a political problem but a political-economic problem, in that the notion of governance is connected to economic liberalism.

A 2005 study of the Centro de Investigaciones para el Desarrollo (Center for Research in Development) finds that, "In the design of any pricing system it is inevitable that there is a tension between efficiency and equality. And there is not any technical process that provides for the calculation of a better alternative. The definition of the price is, therefore, a political decision" (CID 2005). In the same study the Center argues, in accordance with the thesis of George, Hotelling, and Vickrey, that "equality demands an engagement that must represent a redistribution of the wealth of the city" (CID 2005). Therefore, equality in the financial support of public services should not be a product of subsidies but a product of the prosperity of the city.

We mentioned earlier that certain critics of decentralization theory argue that the public service reforms reinforce exclusion and new forms of social segregation. These reforms also represent the rupture of an image of the state as representative of collective interests. Despite the improvements in terms of coverage, new forms of exclusion and segregation have indeed appeared. It is harder, however, to support the thesis that asserts that the process represents an end to the social obligations of the state. Beyond the debate about the convenience or inconvenience of privatiza-

tion, and the inconvenient fact that the adverse affects of privatization have fallen more severely on the poor, it is clear that public services in Colombia are still highly regulated by the national government. Despite decentralization and economic liberalism, the system still works in a very centralist fashion (Gouëset 2005). The experience of Bogotá shows that public services have an important social impact, which generate social stress and, therefore, continue to represent a political issue that demands a political response.

Regional Planning:

Plan de Ordenamiento Territorial (POT)

Bogotá's recent regional planning, represented by the Plan de Ordenamiento Territorial (POT), is the result of a process that began with the passage of Law 388 of 1997. This law forced Colombian municipalities to consider their development for the next ten years and to create a document outlining the reforms that would order and organize regional planning—the POT. The initiative required cities to assume responsibility for their development in light of their newly gained political autonomy, established in the 1991 constitutional reform, and aimed to reduce inconsistent and inefficient regional growth. The law established new relations between the private and public sectors and provided new management tools that allowed municipalities to increase and improve services for citizens. The law is also part of a larger process of democratization in Colombia that reflected the political and social aspirations of the 1990s.

The Contents of the POT

Law 388 of 1997 represented a necessity as well as an opportunity for Bogotá. It was a necessary measure to address the prolonged absence of planning in the city and the consequent damage in terms of regional unbalance. It also provided a means to anticipate the upcoming urban development. Compared to other international capital cities, Bogotá had to make up for its extended neglect of the challenges of contemporary urban development. The POT presented an opportunity to adopt a new city model inspired by contemporary concerns. It was an occasion to examine recent cultural and technological transformations in society and to conceive of an urban plan that would engage with these changes. The urban models proposed for Bogotá are based on the experience and the regional management of other international metropolises in the late twentieth century. Although the values and challenges that shape urban planning at the metropolitan level are often shared, local administrations must design and implement planning within the context of its own inherited regional, social, and political legacy. The POT proposals were needed in order to address the needs of an already constructed city of 6 million inhabitants; a comprehensive government report on the city thus had to be made. Uni-

versities, chambers of commerce, independent and public institutions and research centers had already established regional reports based on years of studies, conferences, and diagnostic evaluations and had already developed tools for global understanding of the city. Inspired by these studies, the POT document proposed the application of a new regional model defined by three elements: nature, society, and human activity (Del Castillo 2000). This model was conceived as a dynamic system that would spark economic and social growth, allow the formation of different paths for development, be flexible, and consider both short- and long-term interests. The commitment of several economic, social, and political actors to the conception of the POT also provided the foundation for collaborative urban planning. One of the POT's central aims was that the writing of the plan be a collective process and that the final document represent a social contract. According to Law 388, public consultation and involvement were required in the POT writing process; shared concerns had to be addressed, and democratic participation promoted. This process aimed to translate citizens' reflections and ideas into a more technical evaluation, and to produce a diagnostic report. The ultimate objective was to create an effective participatory framework that would allow citizens to see their concerns reflected in the final POT document. This emphasis on citizen participation as an essential aspect of urban planning came from the reemerging ideas of participatory democracy in the 1990s. Politicians largely adopted the discourse of democratization during the 1990s when several administrations focused on civic engagement in political campaigns and urban management.

A city such as Bogotá faces intensified demographic growth, as the capital must contend with standard population growth along with the influx of residents due in part to economic and political instability and the specific case of displaced people in Colombia. The highest population growth in the capital took place during the 1950s and 1960s, when a 6 percent average growth rate per year occurred (Martin and Ceballos 2004). The population of Bogotá continues to grow, but at a much slower pace; according to the National Department of Statistics (Martin and Ceballos 2004) growth in 2000 reached 2.2 percent, and the city is still in need of more areas for future urban development. From this perspective the POT conceptualized Bogotá both as a capital city and as a city-region, promoting urban development at the local and regional scale. Therefore the plan divided the region into zones and identified the structural components of the urban forms to be consolidated (including the metropolitan center and zonal centers), while addressing the lack of public establishments and infrastructure. The aim was to develop a large-scale network of transportation, public infrastructure,

and social housing projects. The creation of a coherent urban plan was also seen as a way to consolidate economic development and attract new investments. According to the POT, economic activities should be well positioned according to the specific conditions of the particular environment. The idea was to use the potential of each area, developing, for example, well-connected industrial areas, mostly on the west side of the city, that were outside of the traditional center. Following the model of other international capitals, Bogotá's historical center was to become the commercial face of the city by attracting and concentrating national and international business headquarters, as well as administrative activities and services in a high-density scheme. At the same time each district would represent a secondary center with public spaces, road networks, and basic infrastructure that would consolidate the identity of the area and provide services for local residents. The ultimate aim of the plan was that citizens might enjoy what former Mayor Enrique Peñalosa termed a "balanced, efficient, and fair territory" (Martin and Ceballos 2004).

An evaluation of the city's political, social, economic, and territorial state was a necessary step to start the planning process. By the end of the 1990s Bogotá was the most dynamic district at the national level. This reflected the capital's growth, which lifted the population of the region from slightly less than 10 percent of the national population at the beginning of the 1990s to 15 percent by the end of the decade. Bogotá today is not only the country's largest urban center but also the most significant concentration of the national gross domestic product (GDP), foreign investments, political institutions, and media groups. The POT found that Bogotá was not making use of these advantages: to do so, it called for improving management at the regional level and strengthening the emerging public services sector as a precondition for growth.

An important focus of the POT was the environmental impact of urban development in Bogotá and the surroundings. Noting increasing rates of air, water, and soil pollution, it found that urban development threatened the ecosystems of the fertile Sabana de Bogotá (Bogotá Valley), which surrounds the city on three sides. For example, by 2000 the region's wetlands had shrunk to one sixth of their extent in 1960. Inside the city, widespread traffic congestion, an aging automobile fleet, and increasing industrial production had produced worrisome rates of air and noise pollution. The significant lack of green space in the city (particularly in the poor and populous southern sector) and the low quality of public parks were other indicators of environmental degradation. The lack of water treatment and the proximity of landfills and industry to the Bogotá River spread pollution

as far as the Magdalena River and the Caribbean coast. To address these challenges, the POT recommended immediate development of an extensive public transportation system that would reduce noise and air pollution as well as traffic congestion. It is also proposed the maintenance of green and public spaces in order to restore a sense of collective good among citizens and to reinforce the presence of nature in everyday urban life. Strict controls on industrial activities were proposed, including improvements in waste management as well as rezonings as first steps toward cleaning up the Bogotá River. Industrial production was pushed out of the city center and out of environmentally fragile areas, including wetlands and riparian zones.

Another significant environmental problem was the proliferation of informal settlements—essentially illegal developments built and populated largely by poor migrants—which continued to enlarge the city's periphery, cause severe environmental damage, and put their inhabitants at risk of floods, mudslides, earthquakes, and industrial toxins. Residential development simply was prohibited in environmentally high-risk areas, and the POT proposed that the citizens living in them should be evacuated. However, the inadequacy of the supply of affordable housing compromised the effectiveness of this recommendation.

When the POT was written, there were critical shortages of electricity and water supplies in the urban periphery. These shortages were especially acute in the areas of informal development, which made up 50 percent of Bogotá's districts in 2000. The POT made clear that providing basic infrastructure and social services to neighborhoods in high-risk areas would be more costly and complicated than planning for growth in advance. It therefore promoted increased residential construction and, taking advantage of newly created public-private partnerships, launched the Metrovivienda program to create social housing that could compete more effectively with illegal urbanization.

Years of unmanaged urban development and expansion had led to deep spatial cleavages within the city. The city's wealthiest inhabitants clustered in the desirable northern region, while there was a critical absence of infrastructure and public space in the southern and western parts of the city, where most of its population—and its poverty—were concentrated. Meanwhile, the greatest concentration of cultural and economic activities remained in the city center, which lay at the base of the mountains at the city's eastern margin. The region was unbalanced due to poor roads and the absence of an extensive public transit system, and the city faced problems of fragmentation and a lack of connectivity between the

local and metropolitan road networks. Nevertheless, this network was one of the only urban elements that gave some coherence to the region. To control expansion and create a denser and more compact urban network, the POT recommended the clear definition of city limits and the creation of sub-centers within the urban network to generate clusters of health centers, schools, and other social services while promoting and equitably distributing economic development. In addition, a new collective transportation system would allow easier access to the diverse parts of the city. In identifying the potential of peripheral areas, the plan underscored the importance of the Bogotá River, which represents one of the region's most significant structural elements and had the potential to become an axis of future green spaces.

Another major problem in Bogotá in the 1990s was mobility. Traveling in Bogotá was extremely difficult due to poor roads and sidewalks, daily traffic jams, and the absence of well-planned public transportation. According to the POT, by the end of the 1990s only 30 percent of households owned cars, yet the city faced permanent congestion, air pollution, lack of parking spaces, systematic infringement of traffic rules, and a shortage of space for pedestrians and alternative transportation systems. The poor maintenance and lack of sidewalks were noticeable in many districts: pedestrian areas were regularly overtaken and converted into parking zones. Elsewhere, road networks were interrupted by military camps, prisons, or cemeteries. The concentration of activities in the city center and the lack of infrastructure in the peripheries forced many people to migrate to the center, further reducing mobility. The POT proposed construction of a bus rapid transit (BRT) system, to be called the Transmilenio. The city of Medellín (with three million inhabitants in 2000) had constructed a subway system during the 1980s. Meanwhile Bogotá also planned extensive subway projects, yet these were not realized due to high costs. The POT would remedy this defect with a system that would be efficient, relatively inexpensive, easier to construct than a subway, and quick to implement, since it would rely on existing highways for rights-of-way. In addition to the BRT system, a network of cycling paths was developed in the city and its peripheries.

For many years the interests of local officials had dominated planning and city administration in Bogotá. The POT put an end to this tradition, proposing instead a form of collectively conceived town planning that would allow private investments linked to common social interests. According to the POT, public goods should effectively inspire and strengthen feelings of citizenship: those public goods included not only infrastructure and public spaces but also the city's cultural heritage. Through the construction and

rehabilitation of public space, successive administrations attempted to create a new image of Bogotá as a contemporary city, inspired by the development of cities like Barcelona and Boston. The Enterprise for Urban Renovation (ERU), a semi-public institution, was formed in 1999 by the Peñalosa administration in order to coordinate different urban projects proposed by the POT concerning public space. Their work has focused on the identification, recuperation, and renovation of spaces of public interest.

Background of the POT

The POT was written by a multidisciplinary team with experience in different aspects of urban planning. Most of its members were authors of previous studies on Bogotá and its region and had been working together since the late 1980s as part of the Center of Economic Development Studies (CEDE, or Centro de Estudios sobre Desarrollo Económico) of the Universidad de Los Andes. Among them were the economist Carolina Barco and town planners José Salazar and Rodrigo Cortés. Many researchers on the planning team had completed their post-graduate studies in Europe and the United States, and their vision of the city was influenced by their experiences abroad. International trends had long influenced Bogotá's town planning. Among the foreign experts who had worked for the city were German town planner Karl Brunner in the 1930s, Le Corbusier in the late 1940s, and Town Planning Associates, formed by Paul Lester Wiener, Paul Schulz, and Josep Lluís Sert in the 1950s. Their modernist ideas shaped the city's expansion. While Le Corbusier's plans were only partially developed, Brunner, who stayed in Colombia for an extended period, contributed notably to the culture of town planning in Colombia, with projects that included Caracas and Chile Avenues, the campus of the National University (Universidad Nacional de Colombia), and neighborhoods including Bosque Izquierdo, Palermo, Barrios Unidos, Gaitán, Centenario, and El Campin.

During the 1960s, the administrations of Jorge Gaitán Cortés (1961–66) and Virgilio Barco (1966–69) emphasized the importance of city planning. Barco focused on restoring the city through public spaces, housing, and better management. Civic participation was reinforced through the creation of local committees. Influenced by European and American trends, Barco emerged as a champion of the public interest and an advocate for the garden city, who worked hard to rationalize Bogotá's chaos. Much later, the Peñalosa administration would recognize both Barco and Gaitán through the publication of studies on their legacy.

At the end of 1970s, young architects and students in Bogotá took part in the international debate about

the city, a debate that sparked new theories and reflections on the identity, meanings, and possibilities of the city beyond modernist thought. Important international theorists include the Situationist International, Jane Jacobs, and Aldo Rossi, along with others who studied the city from the perspectives of the arts, anthropology, history, and sociology. The emerging visions of the 1970s helped to build a collective awareness of important issues in Bogotá and created the foundation for recent urban transformations (Martin and Ceballos 2004). Certainly the Barcelona model has been a source of inspiration for Bogotá's contemporary planning, as urbanists tried to reconstruct a notion of the public sphere that had nearly disappeared from the planning culture in Bogotá. The work of Oriol Bohigas, Manuel Solà-Morales, and Joan Busquets, planners of post-Franco Barcelona, also inspired much of the planning done in the Colombian capital. These designers emphasized the consolidation of public space in order to reconstruct the city's identity through the valorization of cultural heritage, collective memory, and citizen awareness.

Criticism of the POT

Like most new initiatives, the POT generated significant criticism. The main critique was that it lacked a regional vision. The autonomy given to municipalities by Law 288 of 1997 hindered the efforts of city administration to plan regional development. Consequently, despite the idea of creating a city-region, the POT makes only few references to the region and, because it is limited to the planning of the city itself, does not provide the necessary tools for local administrations to plan for its future as a contemporary metropolis (Noriega 2000). Critics cite Paris, Madrid, Portland (Oregon), and New York as cities that consider local urban planning as part of larger region. In general terms, the model of regional planning emphasizes a broad view of urban development and focuses on the formation of diverse partnerships. And indeed, cities like New York and London have created partnerships with surrounding municipalities to strengthen their regional development. In Bogotá, many unresolved points of regional planning have been transferred to the Department of Municipal Urban Planning (Departamento Administrativo de Planeación Distrital, DAPD), but this entity has been unable to address the significant challenges of regional planning. Thus the POT failed to propose a solution to one of the most important urban issues to emerge at the end of the twentieth century, the regional impact of technological development and the new interdependences formed between the local and global scale (Giraldo Isaza 2004).

The lack of a global vision also prevented the POT from adequately addressing social questions of housing and displacement. The egalitarian, democratic, and

balanced region promoted in the POT requires greater political will, especially regarding informal settlements and the lack of housing solutions for immigrants. The Metrovivienda social housing project did not effectively compete with informal housing, as the POT had hoped. It reached the middle class instead of the poorest communities. Though an important initiative, it proved insufficient (Acevedo Bohorquez 2000). Without the counterweight it was intended to provide, the informal and unplanned city will continue to grow, reproducing many of the existing problems.

Environmentalists were also disappointed by the POT. The Regional Autonomous Corporation (Corporación Autónoma Regional de Cundinamarca, CAR), an independent entity that works to protect the environment, vetoed the proposed northern urban expansion, which represented a clear conflict between the interests of real estate promoters and the environmental protection of the zone of wetlands at the city's northern limits. Although environmental protection and the challenges of sustainable development are addressed in the POT, Luisa Fernanda Vargas Hernandez of the Corporación Autónoma Regional de Cundinamarca (CAR) argues (Ardila 2003) that these pronouncements have been largely meaningless.

Civic participation is another concept that is emphasized in the POT discourse but has failed to meaningfully shape urban planning. According to some critics, the only consultation that took place was with citizens who did not have any legal ability to approve or veto local planning. Moreover, the planning process did not allow citizens to meaningfully share their concerns. Many citizens did not understand the technical language used in the POT, and the Department of Municipal Urban Planning, the government entity that organized the meetings, was not well prepared to manage the debate. The reports of citizen meetings did not appear in the POT, a reflection of their lack of importance. All in all, the impact of civic participation on the final document was quite limited.

The privatization of public services and the growing number of public-private partnerships also undermined the stated importance of the public interest in the POT. On the one hand, Mayor Peñalosa rejected the World Bank's demands to privatize water service, arguing that financial considerations would prevent a private company from extending service to the informal settlements along the periphery, home to many of the city's most vulnerable residents. Yet the financially unbalanced public-private partnership responsible for the Transmilenio system has already been mentioned: in a way, because public investment receives so little return, public finance serves the private sector. The recovery of the city center, including development of Tercer Milenio Park, also reinforced a

planning model that beautified the city center at the cost of displacing many of its poorest citizens.

Defenders of the first version of the POT argued that it represented an advance because it led to construction of foundations essential to the city. Also, they pointed to its decisive rupture with previous urban planning, which tried at most to regulate particular interests while avoiding the broader challenges of city planning (Del Castillo and Salazar 2003). Despite its flaws and contradictions, in short, the POT managed to bring attention to the public interest in the construction of the city, laying the foundation for a collective reflection on Bogotá's urban planning process. One can only hope that future editions of the POT will maintain and indeed expand on its idealistic ambitions while more effectively confronting the complex challenges of achieving them within Bogotá's particular social and political context.

The Contributions of Mayoral Administrations, from Castro to Garzón

During the 1980s and early '90s, Bogotá's administration was marked by corruption scandals, public service crises, and bankruptcy, in addition to serious threats to public security. Since 1993, a series of competent administrations has improved many aspects of municipal management, restructuring public finances, decreasing urban violence, improving public and social services, and building infrastructure. These improvements were the consequence of five successive mayoral administrations. Jaime Castro's administration (1992–94) was responsible for salvaging the city's finances, an important milestone in its history. Yet we consider the first election of Antanas Mockus in 1994 as the beginning of a new era in local politics.

Although Mockus and his successors represented diverse political tendencies, they shared enough to provide the city with continuity. First, they all sought to strengthen the public sphere and make the city more democratic. They also recognized the importance of continuing successful policies of their predecessors. In addition, they responded similarly to the political and economic agenda of global urban competition promoted by corporate media, chambers of commerce, and real estate developers, which emphasizes competitiveness and productivity, insertion of the city into the global market, weakening of land regulations, and pursuit of real estate operations linked to major urban interventions. Political scientist María Mercedes Maldonado (2003) describes this response as "avoidance of ideological definition and an adaptation to the neoliberal model with a social conscience."

Despite these similarities, the last four administrations stressed different issues and proposed varied responses to the problems they identified. The follow-

ing analysis examines the most relevant as well as the most controversial development plans, initiatives, and political visions of each. From the two Mockus administrations we analyze the attempt to reinforce civic participation and institute a "civil culture"; from the Peñalosa administration, the construction and renovation of infrastructure, together with the discourse on public space; and from the Garzón administration, social programs intended to improve life for the poorest and most vulnerable.

The first election of Antanas Mockus as Bogotá's mayor in 1995 marked a turning point in the city's political tradition. This unusual politician, a former academic and educator, is recognized in particular for his independence from the traditional political class of Colombia, often associated with corruption scandals and ineffectiveness. From the beginning, Mockus's management of the city testified to his capacity to innovate, a clear break from mayorships of the past. While his predecessor, Jaime Castro, also represented a change from previous administrations, Mockus is recognized as the first mayor to represent a genuine political alternative (Alcaldía Mayor de Bogotá 2003). His training in mathematics and philosophy, as well as his experience as a professor and dean at the Universidad Nacional de Colombia clearly shaped his distinct approach to politics.

Continuing Castro's efforts to legitimize public institutions, Mockus aimed to reshape the public's conception of the law through projects focused on civic culture. Free from bureaucratic commitments, he put together a diverse administration that included academics and young professionals, a critical decision that allowed the administration to appoint competent public servants. Fifteen years later, his management is still seen positively by most citizens.

The development plan of the first Mockus administration aimed "to collectively build an integrated and fair city, a city that is kind to children and elderly people where it is possible to live peacefully, each one with his conscience, and with the law" (as cited in Martín and Ceballos 2004).

When Mockus became mayor in 1995, he planned to revitalize a city characterized by violence, illegal behavior, and corruption. During the 1980s, a wave of violence had overtaken Bogotá, including attacks on citizens, kidnappings, riots, and crime. This created a climate of fear and a culture of disregard for the law. Even before running for office, Mockus observed a "divorce" among the spheres of culture, law, and morals that direct human behavior, and he developed this argument in research that he directed as a professor in the philosophy department of the Universidad Nacional de Colombia (Carrillo 1991). Ac-

cording to Mockus, laws may exist and even be fair, yet they may nevertheless be disrespected because legal requirements are neither recognized as moral obligations nor accepted culturally. Mockus's civic culture project aimed to reestablish legality by modifying attitudes. In his development plan, Mockus defined civic culture as the "ensemble of customs, actions and minimum shared rules that generate a sense of belonging, make possible urban coexistence and lead to the respect of common heritage and to the recognition of civil rights and obligations" (Alcaldía Mayor de Bogotá 1995). The civic culture project aimed to regulate interpersonal behaviors in order to pacify social space and lay the foundation for coexistence in public space. Fundamentally based on individual self-regulation, civic culture used communication and comprehension of laws as strategies to facilitate moral and cultural acceptance by demonstrating the sharing of common values, including respect for life.

The main objective of the civic culture plan was to promote basic rules for coexistence according to the three levels of moral, cultural, and legal regulation that guarantee respect for life. The administration also hoped to build an organized community that would permit dialogue, cooperation, and the search for peaceful solutions to interpersonal conflicts, with the ultimate goal of identifying alternatives to violence and strengthening confidence in local government. The final objective was to improve the capacity of citizens to express these proposals. Through art, cultural activities, recreation, and sports, citizens were invited to promote tolerance and to embrace cultural and moral pluralism. Civic participation was also encouraged through practices of local planning that included the elaboration of public infrastructure and urban renovations. Citizens were called upon to exercise control and participate in decision-making and political processes in order to promote accountability and guarantee transparency. To monitor and improve on these efforts, the Mockus administration relied on evaluation tools, establishment of new watchdog groups, and creation of public databases on transportation, education, public space and other issues, which were consolidated into an educational resource on urban life in Bogotá. In 1995 the Unified Information System on Violence and Crime (Sistema Unificado de Información de Violencia y Delincuencia en Bogotá, SUIVD) was also created, a tool used to measure the impact of civil culture on urban violence.

The civic culture project assumed many forms. At first, Mockus focused on continuing the Castro administration's fight against corruption and clientelism by making public management both transparent and competent. Thus he surrounded himself with urban experts, gave the most important positions to qualified civil servants, dismantled the corrupt traffic

police, and restructured the police department to emphasize its educational role. Radical measures were taken to protect the health and well-being of citizens. Restrictions on nighttime sales of alcohol quickly reduced the high number of accidents and fatalities due to drunk driving. A ban on fireworks reduced the number of children burned or killed during Christmas celebrations to zero, while affirming that the integrity and well-being of children prevailed over cultural customs. Still, it was not harsh enforcement so much as education, awareness campaigns, and communication that made these measures successful. The teaching of respect between pedestrians and drivers, for example, was accomplished with more visible signs and by stationing mimes at intersections. This peaceful regulation of civic relationships and interactions aimed to ease the cultural acceptance of norms.

Civic culture went beyond shoring up the law and protecting public safety. On the premise that public finances are sacred, Mockus invited citizens to take part in discussions on the investment of public funds. Cultural events such as concerts in the parks promoted the self-regulation of public behavior. A day of symbolic vaccination against violence and a plan for voluntary disarmament were set in motion. A day of reconciliation and peaceful conflict resolution was introduced as a way to fight against individual injustice; mediation and negotiation were promoted as ways to solve conflicts.

Civic culture also confronted behaviors that promoted social exclusion. Aid was directed to the most fragile populations, including children and single-parent families. Improvements in education and health care helped demarginalize the most vulnerable sectors, recognizing them as part of society. Mockus's development plan also proposed the improvement of public spaces as tools to promote civic behavior (Alcaldía de Bogotá 1995), arguing that physical space represented social space, the space of citizens. The revalorization of parks, avenues, and public spaces, harmonization of infrastructure, and construction of green spaces provided new opportunities for education and recreation, while highlighting the importance of a common patrimony, shared by all citizens.

In 1998, Enrique Peñalosa was elected mayor. It was his third attempt. Peñalosa started his political career in the liberal party, which he represented in his two earlier mayoral campaigns. In 1998 he ran successfully as an independent candidate, but in 2006 he rejoined the liberal party in hopes of receiving the presidential nomination. After this failed attempt he joined President Alvaro Uribe's reelection campaign. Thus in 2007, when Peñalosa unsuccessfully sought reelection as mayor, he enjoyed the support of the

national government and of its conservative president. Today he is part of a political coalition called the "Partido Verde" (Green Party), which unites three former mayors of Bogotá.

All in all, it can be seen that Peñalosa's reputation as an independent crusader is somewhat exaggerated. Yet despite his avoidance of ideological definition and his changes of political affiliation, which some consider opportunistic, Peñalosa has a coherent and clear vision of the city: his impact as mayor, from 1998 through 2001, was substantial. Indeed it was his administration that was responsible for some of the capital's most impressive and celebrated urban projects. In contrast to Mockus's emphasis on cultural and civic transformation, Peñalosa proposed a "top-down" approach. His vision of Bogotá, outlined in the POT, was of a city in which the public interest remained central, represented through public spaces, public and alternative transportation systems, and a program of social inclusion based on spatial integration.

The aim of Peñalosa's administration was to make significant physical transformations that would both promote social change and make the city more competitive. According to the development plan, the objective was "to generate a profound change in the way of life of citizens, giving them back confidence in their capacity to build a better future and to dynamize social and economic progress." To achieve this, the plan explained, it was "necessary to substantially improve the physical and administrative structure of the city. The idea is to project and to make Bogotá visible in order to address the challenges facing the city and to take advantage of the possibilities imposed by a new era, and to work with the aim of substantially improving the quality of life for all inhabitants" (Alcaldía Mayor de Bogotá 1998). The development plan accordingly outlined a comprehensive series of priorities, including:

- *Demarginalization of neighborhoods* through physical improvements (water management, paving, parks) and social services (health, education, and welfare)
- *Social interaction* through enhanced social services provision and human development programs (engaged citizenship)
- *A human-scale city* through recuperation and expansion of public space
- *Mobility* through restructuring of public transport (greater comfort, reduced travel times and environmental impacts) and discouragement of automobile use

- *Better urban planning and services* through the organization of urban dynamics (balance between densification and growth, regulation of peripheral expansion), neighborhood renovation and repurposing, and substitution of planned for informal housing
- *Security and coexistence* through crime prevention (law enforcement balanced with improved civic behavior)
- *Institutional efficiency* through improvement of governance, reduction of operating expenses, and better budgetary control.

Peñalosa's development priorities can be summarized in five core initiatives: restructuring of public transport, construction of bicycle paths, construction of cultural facilities including libraries and schools, recuperation of public space and demarginalization of neighborhoods, and creation of a land bank to help address the need for low-income housing. Some initiatives did not have their expected impact. Neither the land bank nor the Metrovivienda housing program was adequate to provide housing for the poorest sectors. Consequently, the goal of controlling illegal growth also failed. Yet the administration had many successes. Peñalosa consolidated the culture of urban management based on technical expertise initiated under Mockus as well as the downturn in urban violence. Just as these efforts were rooted in the Mockus administration, the objective of constructing public space as a tool for the creation of consensus also originated before Peñalosa. Mockus's projects for civic culture focused as well on the collective creation of an image of the city, fostering a sense of collective belonging and emphasizing construction of spaces for social interaction. The principal difference is that Mockus's initiatives addressed modifying cultural and political behaviors, while Peñalosa's aimed to transform the physical public space. Even here, the difference was one of degree, for Peñalosa, too, emphasized modification of social behavior as a way to achieve happiness and create a new way of life, and this view directly informed his physical planning priorities. Thus in his inaugural speech, Peñalosa stated, "The essence of a civilized city is not highways or subways, but the quantity and quality of its pedestrian public space," continuing, "We are going to make a crusade to recuperate a city for pedestrians, a city that shows respect for them and that dignifies the human condition" (Alcaldía Mayor de Bogotá 1998).

According to Gerard Martin (2007), Bogotá successfully advanced social inclusion "by binding a broad sociological interpretation to the concept of mobility." The author's claim, drawing on Lewis Mumford's vision of the city, suggests that Bogotá's urban policies are based on a view of the city not merely as a physi-

cal artifact but as a social institution. Such a definition lies at the heart of the Peñalosa administration's urban policies, which saw public space as a pacified space for pedestrians, a space for consensus and conviviality, the realization of citizenship, coexistence, and advancement of diversity. In sum, public space represents the essence for all manifestations of the human spirit (Alcaldía Mayor de Bogotá 1998).

This discourse on public space has found important echoes in the media and has been adopted by a variety of social sectors. It corresponds to the established view of public space as the "civic representation of public good" (Joseph 1999). Yet it is at odds with the more complex understandings found in the social sciences. Research in urban sociology and anthropology shows that public space in urban societies sets the stage for forms of sociability that are entirely different from those of pre-urban societies. Therefore public space is not considered a place of intersubjectivity but rather a device for representing the tension between distance and proximity. In an essay analyzing the work of Georg Simmel, Erving Goffman, and Gabriel Tarde, urban anthropologist Issac Joseph calls public space the place of "tension between agreement and incomprehension as the basic condition of politics," producing only "related and culturally fragmented identities." In that sense, multiculturalism "is not the cohabitation of identities in a territory but communal accessibility," and public space is an interrelational space that has nothing to do with communal fraternities but is "defined more by the work of a society itself than the result of legislation or an administration" (Joseph 1999). Public space is not only a space marked by civility, circulation, communication, and participation but also one marked by neglect, indifference, reserve, resistance, revolt, protest, riot, and turbulence (Joseph 1999). Joseph concludes that the notion of the public good in contemporary democracies requires redefinition. This statement is specifically true in regard to the Peñalosa administration. Peñalosa's entire development plan involved a reflection on the meaning of the public good, centered on public space, yet failed to recognize that public space is a product of collective efforts. Jürgen Habermas once defined public space as the "domain of democratic controversy and the dynamic of a procedural ethic of communicational behavior" (cited in Joseph 1999), its objective being to create a social contract based on the free and public use of reason. Peñalosa's simpler, top-down approach to public space, though justified by a discourse of democracy and drawn from the writing of Jane Jacobs, Henri Lefebvre, Richard Sennett, and others (Martin 2007), has served very different and contradictory purposes. On the one hand, it justified progressive social policies like the demarginalization of poor neighborhoods and the construction of educational centers, libraries, and recreational centers in the city's poorest

peripheral districts. Yet on the other, it appropriated parts of the city for the more fortunate classes (as at Tercer Milenio Park, analyzed later on in this report) and promoted practices of social exclusion, such as the harrassment of itinerant vendors.

In 2001, Antanas Mockus was elected mayor for the second time. During his second administration, Mockus continued to focus on civic culture as a guiding principle. But his ideas evolved, and his second term, inspired by Peñalosa's development plan, emphasized the problem of competitiveness while continuing to promote many of Peñalosa's important public space interventions, such as the Transmilenio system and Tercer Milenio Park. The new development plan was thus a synthesis of the first plan and of the Peñalosa administration. Though the two mayors differed in many respects, this continuity helped build public trust in local government and renew citizens' belief in democracy.

The 2004 election of Luis Eduardo Garzón was a remarkable moment. Bogotá's mayoralty is considered the second most important official position after the presidency, and Garzón, a former union leader, was the first member of the political left to occupy it. This fact is especially notable in light of Colombia's recent preference for very conservative national governments, in contrast to the leftward turn seen in many Latin American countries: Garzón was elected only two years after the 2002 election of Alvaro Uribe Velez, the conservative and very popular president.

There were two noteworthy political consequences of Garzón's administration. First, he showed that the left could responsibly govern the city. Second, he maintained popular support—indeed the highest approval ratings of any of the city's last few mayors—throughout his administration. In addition, the left kept control of the mayorship in the 2007 elections.

Garzón's administration faced early criticism from the city's elites as well as the media; many feared that the left would put an end to the achievements of former administrations. While Garzón's focus on social stratification threatened the elites, his own party feared that his development plan would be hindered by the nation's neoliberal economy. In the end, Garzón's achievements were significant. He set in motion a great many important social programs, yet without making significant changes in the city's economic policies. This gave political and economic elites confidence, allowing Garzón to negotiate ideological differences with them.

Garzón detached himself from the revolutionary and populist left, connecting his government more to the social democratic tradition. According to Alan Gilbert

(2008c), democracy, globalization and neoliberalism transformed politics in Latin America, replacing the goal of revolution espoused by some leftist movements with a "gradual and consensual search for changes in the fight against poverty and social inequality" (Gilbert 2008c). Thus the Garzón administration defined a development plan that focused on the fight against inequality and exclusion, without proposing radical changes in terms of taxation and redistribution of wealth.

The administration's development plan proposed three core strategies to "build a modern and human Bogotá," based on expanded democracy and a decrease in social polarization and wealth disparities. Its main objectives were peace, the satisfaction of basic needs, and the realization of every citizen's political, social, economic, and cultural rights. Other goals included a healthy environment, an efficient administration, and regional development. These were to be achieved through solidarity, autonomy, diversity, equality, participation, and integrity (Alcaldía Mayor de Bogotá 2004a).

The plan expressed a vision of the city based on protection of human rights and complemented by a process of strengthening communities and institutions. This vision aimed to rapidly establish the conditions necessary for an effective and sustainable exercise of human rights. Therefore, the Garzón administration was close to what political scientist Benjamin Goldfrank defines as "the basic formula for what is known as the 'petista' model of government, which includes three main elements: popular participation, divestment of priorities, and transparency" (as cited in Gilbert 2008c). As in other previously cited cases, the development plan made subtle references to the economic aspects of managing the city, as for example to competition as a necessary condition for development. At the same time, it included a rather populist statement referring to collective production and appropriation of wealth. In fact, the macroeconomic management of the city during this period was very similar to that of previous administrations.

In practical terms, Garzón's development plan contained three components, each associated with particular objectives that were to be translated into policies, strategies, and programs (Alcaldía Mayor de Bogotá 2004a).

- *The social component* aimed to create sustainable conditions for the effective exercise of political, social, and economic rights, reduce poverty and inequality, and promote social inclusion. Garzón's leading social program was Bogotá Sin Hambre (Bogotá Without Hunger). It fed 670,000 people, including poor children, disabled persons, and the

elderly. More than 280 outlets served meals every-day in the poorest sectors of the city, and thousands of students received healthy meals at school. In addition, a network of food distribution, including donations from large chains, reduced the cost of food for the poorest sectors and created a source of revenue for small producers who sold their goods without middlemen. Other programs focused on improving education and health, creating employment, promoting the rights of women, reducing domestic abuse, and providing recreation and sports.

- *The urban-regional component* aimed to promote collective rights, equality, and social inclusion through the consolidation of the city. Programs included improvement of environmental conditions at the regional level and creation of urban sub-centers.
- *The reconciliation component* aimed to reduce violence and enhance social cohesion. Public institutions and civic organizations were to work together to create the conditions for a culture of solidarity, social inclusion, participation, respect for human rights and justice, and public accountability. Programs focused on peaceful conflict resolution, protection of human rights, improvement of the justice system, and participation in public decision making.

In many ways, Garzón's administration was politically moderate, yet his management of the city expressed the values of the political left in important ways. He refused to privatize public enterprises and education, spent significant sums on health care, and launched ambitious programs to combat inequality and exclusion. During his administration, the municipality assumed the management of national public hospitals, which the national government could no longer afford. Furthermore, on issues like street vendors, his posture was more tolerant than that of his predecessors.

Education and health were the sectors in which Garzón's administration made the greatest impact. In education, the city significantly increased the student capacity of public schools, lowered the dropout rate, and expanded financial aid to attend school. In health, the city built three new municipal hospitals, increased the number of citizens eligible for subsidized health care, and made a huge impact on poverty and malnutrition through Bogotá Sin Hambre.

There were other successes. The coverage of public services improved and water rates were reduced. Violence continued to decline (although at a slower pace), while spending on security increased. Finances were well managed, and improved efficiency in tax collection allowed the city to increase its income without raising taxes.

There were also disappointments, including social housing and regional integration, problems that had also bedeviled earlier administrations. Mobility was clearly the area most overlooked by the Garzón administration. Although the Transmilenio system continued to expand, there were no new transportation initiatives and advances in the creation of a unified transportation system were delayed.

Overall, it is clear that the Garzón administration's priorities, as well as its biggest successes, lay in the social area. Sixty percent of the budget was allocated for the social components of the city's development plan. The Garzón administration was recognized simultaneously for efficiency and integrity and for having improved the quality of life in the poorest sectors. Some of his decisions, although criticized by more radical sectors of the political left, allowed him to have friendly relations with the conservative national government and city elites. The combination of ambitious social programs and pragmatic fiscal management allowed Garzón to govern successfully, advance the creation of a more equal society, and engage diverse social sectors in the objectives of the government plan.

Urbanism and the Urban in Bogotá

Nothing is more usual in the history of a public space than the "work of revision or of reinvention," writes Isaac Joseph (1999). That is to say, the city is a space of sustained political action, or, as proposed by urban researcher Carlos Mario Yori, a "stage of power... the space where power is not only established, but where it is put into play, transforming and at the same time defining its own reality." Therefore, Yori continues, "governing and designing, in the case of cities, is to know how to structure the space of cities; it is to know how to structure the space of possibility and accomplishment of every subject" (Yori 2000).

If the city is the stage of power, it is consequently the space of tension between the discourses of urbanism and the urban. Urbanism, as proposed by the Catalan anthropologist Manuel Delgado, is a tool of the *polis*, the city administration, that aims to determine or at least control space, to architecturalize it on the premise that it can be a conflict-free channel for a clear discourse. The urban, on the other hand, is understood as the work of a society itself, work that takes place precisely in the public space. Henri Lefebvre describes the urban as "a radical form of social space, the setting and product of the collective creating itself, a deterritorialized territory where there are not objects but diagrammatic relations between objects, loops, ties defined by a constant state of excitement" (as cited in Delgado Ruiz 2004).

Accepting Lefebvre's distinction, one of our central research hypotheses was that the constant tension

between the city as projected by experts (town planners and politicians) and as experienced by inhabitants would be observable in our case study sites. We expected to find a tension between a vision of the city materialized in a pacified public space and the multiple visions of the urban: a space in motion that is made and unmade constantly, a place of ephemeral and unpredicted appropriations. An unexpected finding in our fieldwork was that the inhabitants of Bogotá's urban space—that is, its social spaces—seem to have accepted and even appropriated the discourses of urbanism widely spread by the media and official propaganda. We do not suggest here that Bogotá's urban space has in fact become the conflict-free space politicians dream of. Yet it is surprising to observe the extent to which political speech has permeated the discourse of the quotidian. The explanation seems to lie in the government's successful use of marketing techniques, a finding that forces one to question the role of communication and urban marketing in the local and international construction of the image of Bogotá, a city that has become the center of considerable debate.

A Mystified Discourse: Urban Marketing and Reality in Bogotá

One of the positive aspects of Bogotá's process of transformation is that the city has become the focus of study for many Colombian and international researchers. It is a radical change that has brought academics into the debates about the planning of the city. Unfortunately, most of the findings of this research remain unknown to the public. Although they contribute to the political debate and can have influence in urban planning circles, they do not help to create critical and collective discourses on the city. Thus the production of these discourses remains controlled by politicians and experts who can count on the support of the media.

Our research has attempted to describe the complexities that have defined the city's development in the last twenty years. We have seen, for example, that even the POT, intended to summarize the city model the authorities imagine, has been the subject of numerous controversies and debates and has been revised twice in less than ten years. Therefore the apparent coherence of Bogotá's transformation process seems to be more the result of hindsight than of planning. The attempts of certain sectors to present Bogotá as a model are thus questionable. Though Bogotá's transformation has generally produced positive results, and there are certainly lessons to draw from the city's experience, it is also evident that that transformation has been shaped by a series of isolated political actions and marked by conflict. Though political discourses and communication strategies aim to give coherence to the city's complex development,

Bogotá's transformation is not the product of a coherent model designed for the city but the result of a variety of causes and effects. To understand Bogotá's transformation, therefore, one must also understand the discourses that have sought to explain it, not in fact as explanations but as expressions of ideological positions or interests. This section looks at the discourses projected by local and international marketing, the international media, global planning circles, and multilateral organizations.

Georges Benko (2000) writes that the geopolitical classification of cities is a logical consequence of the need to compete in a globalized world. At the same time, decentralization policies have made development a local responsibility. In the effort to make itself competitive, a city's capacity to attract investors, tourists, and new residents is determined by different factors, including those that are physical (infrastructure and public services), economic (local taxes, labor conditions, land prices), and demographic (qualified work force). Yet in addition to these aspects, Benko argues that "the image, the identity or the representations of the urban space play a determinant role," and that "in that sense, local cultural, urbanistic or social policies can participate in the economic development of the city or the region" (Benko 2000). Consequently, regional communication campaigns become ubiquitous as cities become products for consumption that can be advertised, and "the fact that a region or a commune creates an image for the public, and that they use instruments of communication such as slogans or logos is no longer strange" (Benko 2000).

Beyond the political and demagogic discourses, then, Bogotá's recent transformations must be understood as part of a strategy, including a marketing campaign, to improve local competitiveness and productivity. In fact, Bogotá appears to exemplify the claim made by U.S. anthropologists Ida Susser and Janet Schneider that "in cities torn apart by violence and war, globalized processes, far from being the principal or obvious source of devastation, may actually present themselves as a part of the solution, a path to the restoration of urban health" (Susser and Schneider 2003). In Colombia, an inarguable truth has been accepted in national planning circles: foreign investment and economic opening are important instruments in promoting social and economic development. Marketing both Bogotá and Colombia as worthwhile places to invest in has accordingly become a priority in both the local and national economic agenda.

Since Bogotá might until very recently have been considered what Susser and Schneider (2003) call a "wounded city," the problem of image holds particular interest. "Wounded cities" are those marked by high levels of crime, civil war, or natural disaster.

Susser and Schneider explain that “[i]n order to attract tourists and new investments, these cities have to recreate themselves like merchandise, investing particularly in the representation of their image” (as cited in Vincent 2005). Changing the perceptions of Bogotá as a violent and chaotic city, even among local residents, has been particularly challenging. In a 2002 article, Colombian social researcher Armando Silva (2002) cites a survey done by the Chilean business magazine *América Economía* that ranked Bogotá thirteenth among the thirty-four most competitive cities in Latin America as a place to do business. The survey compiled data on the cost of living, infrastructure, commerce, and violence. It also interviewed 500 Latin American executives. Although Bogotá was highly ranked in all the indicators, the interviewed executives said unanimously that they would not live in Bogotá.

Under these circumstances, urban marketing has become a useful tool for local authorities to improve the international image and competitiveness of the city. Administrations have also found political value in these communication strategies. The exercise of politics in the city has been mediated by communication practices that tend to combine regional with other forms of marketing, including political, economic, and social. Bogotá is hardly unique in this. Benko (2000) remarks that regional marketing, which is meant to promote a local entity, instead often “valorizes and justifies the actions and projects of the different candidates” and is usually connected by journalists and politicians to other forms of political marketing. This amalgamation is a product of the fact that political actors use regional marketing as a political tool.

Bogotá’s success story has received a significant amount of media and professional attention. Clearly much of the publicity comes from those who benefit, including municipal government, local business groups, public-private partnerships, and multilateral credit organizations and development banks eager to promote the neoliberal model. Thus a large part of the information reproduced about Bogotá is ideological in nature: not surprisingly, it oversimplifies both the city’s complex reality and the findings of research scholars.

The city’s marketing has relied on three urban marketing practices defined by Marc Dumont and Laurent Devisme (2006) as economic (the attraction of investors and tourists), political (urban actions replace or are tied to the political agenda), and social (the construction of a collective imaginary).

Simplification has become characteristic of these political exercises. Mexican publicist Eulalio Ferrer writes that “we have passed from the class struggle to a phrase struggle, that is, from the doctrine to

the slogan, from the program to the advertisement, from the semantic to the esthetic” (Ferrer, as cited in Beccassino 2003). As Argentinean advertising executive Angel Beccassino (2003) reminds us, the word “slogan” comes from ancient Scotland, where “sluagh-ghairm” signified the war cry of a clan, “the cry where the argument is substituted for the affirmation.” Indeed, each of the last administrations has been identified with what urban researcher Paul Bromberg (2008) calls a brand: Mockus (civil culture), Peñalosa (public space), and Garzón (social inclusion). So pervasive did this branding become that, as Bromberg notes, the media was puzzled by the more recent arrival of a mayor, Samuel Moreno, who lacked such a clear slogan.

The pressure to reduce government’s communication with the public to slogans, logos, and other oversimplified messages is problematic because government accountability depends on the administration’s commitment to communicate its actions and projects, yet this information must be complete, relevant, and comprehensible. By reducing political activity to a problem of communication (conceived as advertisement), this sort of “branding” of politics also reduces enormously the quality of public debate and civic participation. Slogans may be useful in attracting voters and improving the government’s ratings in the polls; they can even be valuable in transmitting pedagogic messages, as seen in the civic culture projects of Antanas Mockus. However, in terms of reinforcing the public sphere and promoting political participation, the communication strategies of the recent administrations have failed. According to María Teresa Garcés (2008) polls conducted by *Bogotá Como Vamos* in 2007 found that a high percentage of people claimed not to have heard of the various participatory spaces or social associations in the city (Garcés 2008).

A few years ago, leading Colombian urban researcher Fernando Viviescas warned that Bogotá represented “the enlightened reinstallation of the old regime,” that is, “the reestablishment of (messianic, educated, and omnipotent) administrators who resolve people’s problems while the citizens are expected to simply obey” (Viviescas 2001). Admittedly, the author refers to the period when the emerging changes in urban planning policies were just beginning to show results during the Penalosa administration. He considers the inclusion of the greatest number of citizens in this process essential to protect the transformation process from traditional dominant interests. Yet regrettably, the empowerment of social sectors has had a lesser impact than that of private actors. While many urban projects and public services have undergone some degree of privatization, participation levels in social and civic movements remains low. Meanwhile, local

elites, including media owners, have found in their association with city authorities a sure path toward new business opportunities. Therefore private sector participation in the urban discourse on the city directs urban development toward particular interests, justifying profitable real estate operations, public-private partnerships, and privatizations by appeals to the general welfare. The announced decentralization of municipal government is represented by a public agenda seemingly driven by a partnership between local government, the chamber of commerce, and corporate media. For example, one of Bogotá's best-known tools of accountability is the periodic public survey known as *Bogotá Como Vamos*, an initiative of *El Tiempo* (Colombia's most important newspaper), the Bogotá Chamber of Commerce, and the Corona Foundation. Though the project provides useful public information on many important issues, the survey results that receive the most media coverage are those that directly interest the survey's promoters, who have recently begun to use the survey as a tool for pressuring political leaders.

Bogotá has made significant advances in the creation of a more just and democratic society. One of the city's greatest challenges today is promoting the political engagement of all social sectors. The quality of communication between city authorities and the public is tremendously important in this endeavor.

Internationally, Bogotá's image is shaped by discourses that describe the city as the stage for a "radical transformation process," the product of "innovative urban development policies,...spectacular physical interventions,...an excellent public administration," and "creative programs of civil culture." The city's urbanistic culture is defined as a set of practices that "transcend the traditional discourses of town planning" and have redefined "the process of building the city," not only as a physical space but also in "social and mental terms" (Escobar et al. 2007). The most important marketing agency, Invest in Bogotá, is a public-private partnership between the city and the Bogotá Chamber of Commerce that aims to encourage tourism and attract foreign investment through international promotion based on urban competitiveness. This international marketing strategy has been effective: according to *América Economía*, the same survey that ranked Bogotá thirteenth among the top Latin American cities a few years ago, the city is today considered the sixth-best city in Latin America to do business.

Invest in Bogotá perfectly illustrates how the city's urban development has been planned in terms of entering the global economy. The city's marketing strategy, based on competitiveness, is the same discourse on international planning that is oriented toward international trade and the liberalization of markets led by

the private sector. Competitiveness is usually framed to the voting public as a concern for general welfare, that is, as a way to boost job creation, generate new productive activities, and improve the quality of life. However, according to some Latin American researchers, this model has produced rather negative results (Brand 2009, De Mattos 2009, Betancur 2009, Pradilla, 2009), including increased unemployment, tertiarization of the economy, relaxation of labor regulations, and the emergence of new forms of social exclusion.

Bogotá seems to be an exception in some ways. Yet Bogotá's marketing reveals that the real interests behind the narrative of competitiveness are investor profits. According to Invest in Bogotá, foreign investors can benefit from some of the most flexible labor regulations in Latin America as well as competitive salaries, tax deductions, investor protection, and a rising economy with favorable rates of unemployment and underemployment (Invest in Bogotá 2009).

There are other reasons to invest in Bogotá:

Bogotá's economy is larger than that of many countries.... Bogotá's strategic location and the numerous daily direct flights to major cities in the hemisphere make Bogotá an excellent location to serve the Americas... Bogotá has an abundant supply of offices and land at competitive costs.... Bogotá is not only one of the safest metropolises in Latin America, but is rated as one of the best places for doing business.... More than 800 multinational companies are located here.... Beyond business, in Bogotá you will find cultural and gastronomical diversity... The city has more than 4000 public parks, and the largest bicycle route network in Latin America.... In Bogotá you will be able to incorporate your business in two days.... There are attractive investment incentives such as permanent and company-specific free trade zones, legal stability contracts, income tax deductions, exemptions from VAT and ICA for the exports of goods and services, and free training programs, among others (Invest in Bogotá 2009).

Beyond these factual arguments, Invest in Bogotá assures potential investors that "satisfied investors and journalists from all over the world eloquently refer to Bogotá as a choice place to live and invest."

As Bogotá has gained the attention of the international media, another set of themes has emerged: Bogotá as a model for urban development, an inspiration for other cities facing similar challenges, and a paradigm for vibrant civic engagement and sustainable design. Both Mockus and Peñalosa have emerged as distinct personalities in the narrative of transformation,

sometimes overshadowing the complicated nature of their efforts. Setting Bogotá's achievements against the backdrop of Colombia's recent history of conflict, these accounts typically cast the city as an exceptional site of progress and peace. Finally, the international media generally focuses on the positive stories of citizens impacted by the city's development, creating a somewhat romanticized narrative.

One of the areas on which the international media has focused is Bogotá's transportation planning, seen as a replicable model for combating global climate change and improving urban quality of life. Thus a *New York Times* article lauds Bogotá for providing a "model of how international programs to combat climate change can help expanding cities pay for transit systems that would otherwise be unaffordable" (Rosenthal 2009). Bogotá's Transmilenio has drawn particular attention, as in a *Los Angeles Times* article citing a study that showed a 32 percent reduction in commute times and a 40 percent decrease in air pollution by 2005 (Woo and Peralta 2006). The *Toronto Globe and Mail* reported that versions of the system had been built in developing cities around the world, including Mexico City, Jakarta, and Beijing, with more planned for Delhi, Seoul, and Johannesburg (Montgomery 2009).

Bogotá is promoted as a model not only for the developing but also for the developed world. According to the *Globe and Mail*, it is "being championed by planners and politicians in North America, where Mr. Peñalosa has reinvigorated the debate about public space once championed by Jane Jacobs" (Montgomery 2007). In a *Guardian* editorial urging the United States to take the lead in green urban planning, former World Bank president James Wolfensohn (2007) warns, "If the U.S. does not act soon, American cities will lag behind not only European capitals, but also cities in developing countries such as Bogotá and Curitiba (Brazil), which are already implementing innovative environmentally friendly solutions."

In the summer of 2008, Mayor Michael Bloomberg of New York City introduced the Summer Streets Project, an initiative closely modeled on Bogotá's Ciclovía, which closes the capital's main streets to traffic on Sundays and holidays all year round. The "Summer Streets Project" began as an experiment, closing seven miles of Manhattan's streets to car traffic for six hours on three consecutive Saturdays. According to the BBC (2008), the results were impressive: like the avenues of Bogotá on a Sunday morning, the streets were filled with pedestrians and cyclists, jugglers and musicians. *The New York Times* (2008) soon published an editorial describing the wonders of a car-free Manhattan: "Without honking horns and speeding taxis, the streets became serene parks, open to throngs

of cyclists, in-line skaters and strollers." Noting the success of Bogotá's Ciclovía, the newspaper's editors called on New Yorkers to "vote with their feet—in favor of more chances to displace the cars, trucks, and taxis for a day, and go for a stroll."

Similarly, the previously cited article in the *Los Angeles Times*, criticizing the city's efforts to expand the subway system at the expense of bus transit, called on city officials to "look at how Bogotá, Colombia—a metropolis of nearly 7 million residents—tackled its traffic problems," citing the city's 300-mile system of bus lanes, bicycle paths, and pedestrian streets. The authors conclude, "The success in Bogotá has shown that bus rapid transit is a proven solution for moving people efficiently" (Woo and Peralta 2006).

According to Martin Wiseman (2009), a medical adviser at the World Cancer Research Fund, the benefits of good transportation planning go beyond a more pleasant environment. In a *BBC News* editorial, "Make London like Bogotá," he contends that public health and urban design are closely linked, a critical concern in the face of increasing rates of cancer and other diseases. Where pedestrians, cyclists, and public spaces are a priority, he writes, residents are more likely to stay physically fit and healthy. "This is why," he concludes, "when it comes to our attitude to public space, we in the UK need to become a bit more like Bogotá."

Perhaps the most striking aspect of the media's fixation on Bogotá is the way the city's achievements are nearly always painted against the backdrop of Colombia's national conflict. The changing landscape of the capital is rarely described without first recounting the bombs that once tore apart the city, the violence of guerrillas and paramilitary groups, and the abandoned farms of the countryside. Bogotá is understood essentially for its exceptionalism, persistently described in the media as a "miracle" (Wilson 2002), a beacon of hope amid the terror of war.

Many articles refer to Bogotá's own violent history as a measure of how far the capital has come. In a *New York Times* article titled "Conflict Rages, but Capital Basks in Good Times," Juan Forero (2001) writes that there was little hope in the city's future for many years: "In the early 1990s, Bogotá was a basket case. Traffic made short trips grueling. Crime was increasing out of control. Refugees were streaming in. Development was hamstrung by corruption." In a similar vein, Mauricio Rodriguez, editor of the Colombian newspaper *Portfolio*, reflects, "Ten or twelve years ago, Bogotá was a disaster. There was a lack of infrastructure and there were security and safety problems. There was no optimism in relation to the future" (Bogotá 2007). A *Washington Post*

article called Bogotá "An Island in a Land at War" and reported, "Bogotá has emerged from a period of almost daily bomb attacks during the early 1990s, as an island of relative peace" (Wilson 2002). The *Globe and Mail* lauds Mockus and Peñalosa for helping to "transform a city once infamous for narco-terrorism, pollution and chaos into a globally lauded model of livability and urban renewal" (Montgomery 2007).

Bogotá is contrasted both with the city's past and with the violence that continues to plague much of Colombia. Articles often contrast the impoverished and neglected countryside with the modern, innovative, and progressive Bogotá. Thus the *New York Times* reports: "Thirty-seven years of conflict have left Colombia with two million displaced villagers. In some cities, urban warfare rages between rebels and right wing militia members. Farms lie fallow. The economy suffers. But not in Bogotá, the fog shrouded capital 8,000 feet atop the Andes. In this city of seven million, many Bogotanos agree, things have never been better" (Forero 2001).

Despite such images of urban felicity, the visible presence of displaced villagers is a frequent reminder that the city is not in fact isolated from the national conflict. In "Outside Colombia's Peaceful Cities, A Country at War," another *New York Times* reporter writes that in 2008, three hundred refugees from the countryside attempted to occupy Parque de la 93, "a verdant, tranquil island of sidewalk cafés where Bogotanos listen to jazz, sample microbrewed beer or dine on Cantabrian prawns." These protesting refugees serve as a reminder that if "Colombia's capital city is looking to a bright future, much of the countryside surrounding it is not. There in the hamlets and jungles, Colombia remains at war, as it has been for generations" (Romero 2008).

In the midst of upbeat reporting, the discourse of the city's residents that has emerged in the foreign press is remarkably one-dimensional. Nearly all of those interviewed describe the positive impacts of urban transformation. Again, the Transmilenio is a common focus. Leather worker Jorge Engarrita tells the *New York Times* that riding the Transmilenio "changed his life," reducing his two- to three-hour commute to a mere forty minutes. Security guard Heriberto Acero expresses his gratitude for electricity, telephone service, and drinkable water. Designer Edgar Saenz remarks, "Incredible, but now this city has possibilities. We can walk downtown without fear, in a pleasant urban landscape. I think the capital is an example for the whole country" (Rosenthal 2009, Forero 2001). Those who have not gained, or have even lost, are rarely heard from. The unemployed, displaced, or otherwise marginalized communities remain hidden in favor of a romanticized vision of urban transformation.

The Discourses of Urban Planning and of Multilateral Organizations

Like the international media and the city's own publicists, international urban planning circles and multilateral organizations present Bogotá as a model city, through for slightly different reasons. Urban planning circles generally echo the values of human and social development proclaimed in international agreements like the Istanbul Declaration on Human Settlements and the United Nations' Habitat II. Multilateral organizations commonly insist on the importance of good governance. Thus urban planning circles present the city as a model of urban development and sustainable design; multilateral organizations as an exemplar of "governance" and "good practices." Yet while multilateral organizations praise the benefits of democratization and decentralization, it is clear that they see these mainly as aids to a strategy of development through urban competition. A study by the United Nations Development Programme (UNDP 2004) calls Bogotá "one of the best examples of local governance and urban development," remarking that "achieving development depends on policies that incentivize democratic governance and efficient local governance from the part of developing countries." The same formula emerges from the World Bank's reports on "good governance" and decentralization (see, e.g., Campbell and Fuhr 2004).

This focus is particularly noteworthy because the empirical evidence for the benefits of decentralization in Latin America remains at best ambiguous. Although the impacts of neoliberalism on cities in North America and Europe has been much studied, research on Latin America is limited and quite recent. Much of it is distressing, suggesting that some cities in emerging economies may have failed to become nuclei of economic growth and prosperity but instead have become places overcrowded by a surplus of residents employed in precarious work. Although Bogotá is in many ways a positive example of urban development, it is difficult to argue that its transformation is just the consequence of the recommendations of development banks. Moreover, although Bogotá is presented as an example of the positive impacts of democratization and decentralization on governance, democracy in Bogotá still faces critical challenges, not least the low levels of public participation. Meanwhile, decentralization has had ambiguous consequences in terms of the social impacts of privatization. Despite some of Bogotá's advances, the city still displays many of the same problems as other South American cities.

Gilbert warns that "even though much has been written about the benefits of democracy, decentralization and privatization, a lot of those texts are ideological in nature" (2008a), and therefore must be read with discretion. An example is the habit, not fully support-

ed by evidence, of describing the public sector as a source of inefficiency, while lauding the private sector (Betancur 2009). Other authors argue that the idea of governance itself is a product of the neoliberal narrative, as a decrease in state intervention gives way to political concepts like "governance" and "strategic planning," which lead in turn to revaluation of the market as a mechanism for economic regulation and social participation (De Mattos 2009). Thus the praise for Bogotá's governance accorded by credit organizations and development banks reflects their approval of neoliberal economic management.

Praise from urban planning circles may also reflect an emphasis on creating favorable conditions for investment. Though the formative influence of the competitive city model on urban planning has received little critical attention within urban planning circles, urban researchers Peter Charles Brand and Fernando Prada (2003) contend that the narrative of competitiveness has directed the discourses of urban planning for the past two decades. To comprehend the complexity of Bogotá's transformation, the way the city's urban planning corresponds to the development model of competitive cities must be understood.

Bogotá as a Competitive City: Exception or Rule?

Urban planning around the world has been enormously influenced by changes in the global economic landscape of the last two decades, including economic liberalization, deregulated public management, and new information technologies. In this context, local governments have become the administrators of economic development, and direct global competition among cities has emerged (De Mattos 2009).

In Colombia, municipal governments have recently started to consider the question of competitiveness in urban planning. Local development plans now address economic globalization, economic opening, the competitiveness of cities in the world economy, and the varied perspectives of socioeconomic development (Brand 2009). These supralocal elements of national planning, which represent the efforts of the private sector to insert the country into international markets, must be included by legal mandate in local municipal policies and development plans, which shape the competitive strategies of Colombian cities.

Brand and Prada (2003) argue that urban planning circles use the competitive cities narrative to justify a neoliberal economic paradigm. Its premise is that increased competition should generate new productive activities, create employment and income, and improve quality of life. The generation of wealth is seen as the principal way to ensure general welfare and reduce unemployment, inequality, and social

injustice. The authors argue that this narrative, uncritically accepted by local governments, has become the heart of urban planning in Colombia. Indeed one of the main objectives of recent urban plans has been to support policies of economic development. Presented as necessities in the current geopolitical context, competitiveness and internationalization become the priorities of urban development.

The narrative of competitiveness presents globalization as a new era, which in order to enter, governments must leave behind old practices, including centralism, protectionism, and regulation, in favor of international trade, economic opening, foreign investment, and competitive labor markets. Once declared the main priority, competitiveness becomes the focus of municipal policy, the private sector increasingly influences social dynamics, city governments launch urban marketing campaigns, and the strengthening of business activity, increased research and innovation, and improved infrastructure and public services emerge as main concerns (Brand and Prada 2003). In terms of urbanistic actions, the strategy implies industrial reconversion and the promotion of a modern sector of public services and technology, including industrial parks, free trade zones, and international business centers. Recreational and health-care infrastructure, public transportation, and telecommunications infrastructure are also considered.

Despite the professed benefits of the neoliberal competitive model for developing cities, many studies argue that the consequences have generally fallen short of the predictions and in some cases have been negative. In Latin America, negative employment trends are observed, while most new jobs are in areas of low productivity in the tertiary sector. In addition, the insufficient creation of employment has a considerable impact on the informalization of the economy (Betancur 2009, Brand 2009, De Mattos 2009, Pradilla 2009). The urbanization of poverty is generalized: according to UN-HABITAT, 31.9 percent of Latin America's urban habitations are in informal districts that concentrate 128 million inhabitants (as cited in Brand 2009). Dematteis and Governa explain how cities become networks of settlements organized around a large number of specialized hubs in vast multicentric regions (as cited in De Mattos 2009). In many Latin American cities, according to Betancur (2009), the decline of manufacturing, informalization of the economy, destabilization of labor, and privatization of public services actually amount to a reversal of development.

Bogotá's development over the last three decades has resembled that of other Latin American cities, and it remains characterized by high levels of poverty and inequality. Yet it would not be fair to say that the

city's recent projects have only aimed to mask the ruptures in the social space produced by the competitive city development model or to create the illusion of social cohesion. In contrast to other Latin American cities, many of them have helped significantly to democratize the city, promote equality, and reduce social segregation despite a prevailing economic agenda that in many ways undermines these objectives. Compared to the recent urban development of other metropolises in the region, Bogotá's transformation is promising.

What needs to be noted, however, is that in many cases these positive results have been produced by policies that depart from Latin American (or neoliberal) norms. For example, the majority of new urban projects in Bogotá have been made in very poor peripheral districts, and their impact improved the quality of life for many people. In addition, the Garzón administration proved that investing in social programs is both possible and sustainable (Gilbert 2008c), though there is some controversy over whether the substantial reductions in poverty reported by both Colombia's Department of National Planning and the UNDP are as great as claimed, whether they should be attributed to specific urban programs or to general national improvements, and whether they point to significant equalization in the distribution of wealth (see e.g., Gilbert 2008a). Finally, Law 388 of 1997 has had positive consequences for urban management. In addition to mandating urban plans, the law supported the notion that property has a social function, subverting the idea that individual interests should be privileged over collective interests. It also promoted equilibrium between the costs and benefits of urbanization and between landowners and the community, and created mechanisms for public intervention in the land market, including administrative expropriation of property for public purposes. For these reasons the law represents a useful tool for social development, and various Latin American countries are considering similar mechanisms (Jaramillo 2009).

Conclusion

In an article discussing the construction of urban sensibility through the arts and the media, social researcher Armando Silva (2000) suggests that the structures of classical literature, particularly of the fairy tale, are reflected in contemporary media accounts of urban development. In fact, many texts describing Bogotá's recent transformations resemble fairy tales in the way they recount the city's victory over its many challenges, disregarding ambiguities, complexities, and contradictions. As we have seen, these oversimplified narratives serve particular interests. The real story is more complex. Although Bogotá has not resolved the profound social contradictions of contemporary Latin American metropolises, it has

made important advances in the construction of a more just society. While the experience of Bogotá does not empirically represent the benefits promised by the neoliberalism and discourses of good governance, it cannot be argued that in recent years the urban crisis of Bogotá has worsened under these systems. Indeed, recent administrations have found solutions to some of the most challenging problems of the city. This is precisely the particularity of Bogotá's transformation and the reason it merits study, beyond the simplifications of political and media discourses.

How can the success of recent administrations be explained? Earlier we noted the five tangible causes of Bogotá's transformation proposed by Alan Gilbert (2008a): good mayors, the end of clientelism, technocracy, continuity of administrative policy, and an increase in economic resources. We have related these five causes to four determinant sociopolitical processes: the constitutional reforms of 1991, the process of democratization and decentralization, the new laws of urban reform, and local development plans. These processes have produced changes in the administration of the city that differ significantly from contemporary practices of public management. Despite the emphasis of local development plans on increased competitiveness as the means to urban development, there has also been serious engagement with social development. Public expenditures on infrastructure and social programs targeting the poorest sectors have been noteworthy, and although the gap between rich and poor remains a major cause for concern, important reductions in poverty have been made.

Do these successes make Bogotá a development-model for other cities? Not exactly. Not only have those successes been closely linked with a particular sociopolitical process, but Bogotá's transformation is an incomplete process that has not been free from social stress and contradiction. Even some of the projects most lauded today were extremely divisive when they were introduced and remain controversial. What Bogotá's experience does demonstrate is that it is possible to spark a rapid improvement in governance and to transform the political practices of local governments and citizens. Ambitious projects were realized, thanks to significant increases in public expenditure, facilitated by improvements in tax collection. These increases have proved to be sustainable. The government also proved that it is possible to manage public finances responsibly while maintaining public expenditures on infrastructure projects and expanding social spending. The experience of Bogotá shows that the combination of good management and social development can produce positive results in key areas like security, mobility, education, health care, recreation, and access to public services.

Chapter 2

Urban Transformations

A Small-Scale Analysis

Urban Settings or Ambiances: A Preface on Methodology

The core of our research on Bogotá consists of an analysis of three recent and paradigmatic projects: Jiménez de Quesada Avenue, Tercer Milenio Park, and the Tintal zone. This analysis seeks to understand the impact of each project, taking into account the larger changes in Bogotá's urban dynamics that have already been described. It includes observations from fieldwork, descriptions of urban settings or *ambiances*, and conclusions based on interviews with Bogotá residents. Here, then, we seek to go beyond generalities or political intentions, and to understand the concrete impacts of specific projects that have been undertaken as part of the larger urban renovation program.

To understand the development of the city at this level requires us to collect what might be called the story of the place. Each story, while being unique, is never singular but is diverse and multifaceted. Each focuses on practices and ambiances, blending past, present, and future, and informing residents, policy makers, and designers about the things that shape everyday urban life.

To collect these stories is an exercise in listening, thinking, and finally enunciating the place. To this end, many methods that come from urban research have been formalized, including commented walks, recurrent observations, and "reactivation techniques." The story can then be expressed through words, photography, sound, drawing, video, or even body language. Each place, each project, and each actor's context becomes an opportunity to test and modify methods used to collect and bring together the perceptions and representations of all the participants.

These tellings are both ordinary and expert, and are given to us most often *in situ*: thus the place influences the story, acting as a third party between the narrator and the interviewer. These methods are not

tools for consultation on their own but rather openings toward understanding the character of a place, together with its ambiances and social practices, that is, its ordinary or quotidian heritage. They produce knowledge relevant to all phases of urban intervention.

To understand how the three sites are experienced and perceived following profound transformation, we have deployed, in addition to classical cartographical and typo-morphological analysis, a set of methods and field tools that have allowed us to get as close as possible to the urban settings, on one hand, and to the inhabitants' and users' accounts on the other. These methods include observations and field notes; sound, photographic, and videographic recordings; commented walks with both users of the site and professional experts; and shorter interviews. All these are ways both to understand and describe what we call "urban ambiances."

What are ambiances? We are all attentive, sometimes even "captured" by the perceived atmosphere of a place as we arrive there. We may be alert to a remarkable lighting effect or special sound, energized by a bustling public place, or on the contrary brought to contemplation in a place bathed in peace and quiet. Often singular and irreducible, the setting or ambiance of a place depends on the date, time, weather, and the people who are there, as well as our own actions. Yet despite these variations, it generally has characteristics that give it a specific and recognizable identity.

Every day, we experience and are affected by ambiances. Yet while we feel and even share these sensory experiences without difficulty, the notion of ambiance defies formal definition. We experience ambiances as indivisible wholes, without separating sensory channels or distinguishing actions from perceptions. Yet in analyzing ambiance we also dissect it, separating one sense from another. Thus the more knowledge we accumulate about composition and

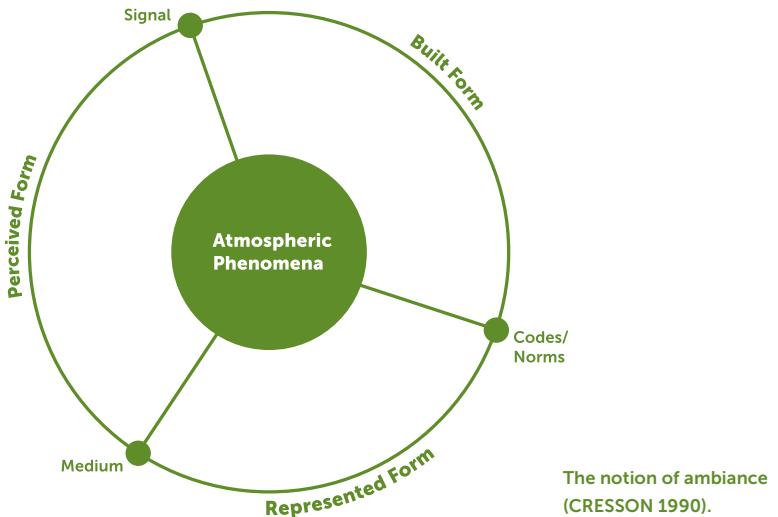
constitution, sound, light, tactile and spatial qualities, and social experience, the more we risk losing contact with the thing itself. An interdisciplinary approach is needed to enable us to go beyond the useful but simplistic level of analysis that describes human environments in terms of their comfort or discomfort.

The expression "architectural and urban ambiances" is very French and resists easy translation into the terms of other research cultures. The notion covers a range of different approaches, depending on countries and authors; thus in Brazil, anthropological and political dimensions are prominent, while geography and aesthetics color German approaches, environmental and operational dimensions North American ones, and so forth (see Böhme 1995 and Zardini 2005, as well as the contributions published in the international ambiances network www.ambiances.net). Nevertheless, the basic notion of architectural and urban ambiance may be quickly summarized as follows (see Amphoux, Thibaud, and Chelkoff 2004 and Adolphe 1998):

- It involves a sensory relationship to the world that combines both separate and simultaneous sensory impressions.
- Its study requires a multidisciplinary approach with attention to the built, sensory, and social dimensions of living space.
- It does not refer to a particular spatial scale. Used for housing, public spaces, work, and commercial areas, spaces of mobility and of representation, it refers to a situation of sensory interaction. Thus it is a trans-scalar notion that applies to "ordinary" as well as to more scenographic spaces.
- Employed to study and design spaces, it places the user's experience at the heart of the project.

The study of architectural and urban ambiances, far from being restricted to specialists, is an open and porous research field enriched by physical modeling and descriptions of sensory space, and research in aesthetics, cognitive sciences (particularly the ecological approach of perception), and the sociology and anthropology of living spaces. It is also an internationally growing research field, and one goal of our research has been to test its applicability in a context very different from European cities.

Thus, collected materials (sound, photographs, video recordings, noted observations, micro-interviews, walks narrated by residents, local documents) are a way to "capture" urban situations as much as a way to let oneself be "captured" by these same situations. For us, then, multiple points of view and



multiple methods are essential, both to maintain the required distance between the research and its object and to ensure that understanding remains connected to the place as perceived by the senses and experienced by its users.

The challenge is then to build stories out of the whole corpus in order to understand how these spaces have evolved through people's practices and representations. These stories should connect individual and singular perceptions with global observations, allowing one to feel the life, richness, and complexity of any situation while identifying the urban figures of the space. To this end, we proposed employing text, images, and sound and video recordings, plus a combination of all of them in a multimedia form that we call "urban transects." To create these records, in addition to the usual research tools of reading, direct observation, and writing, we used digital cameras, video cameras, portable recorders (for interviews), and digital sound recorders with either a cardioid microphone with 120-degree aperture (for soundscapes) or a dummy head microphone (for "onboard" recordings). The results are contained in this printed volume, the accompanying DVD, and the associated website.

Since the beginning of the twentieth century, walking has occupied a central place both in urban research and as the fundamental mode of practice of urban space itself. Among the well-known works on the subject to which our work refers is Jean-François Augoyard's *Step by Step* (1979), which proposes a groundbreaking analysis of the rhetorical dimension of walking. We might also mention the writings of Kevin Lynch on the perception of city space by walkers and motorists and, from the same period in France, the works of the writer Georges Perec and the sociologist Pierre Sansot (Lynch 1960, Perec



1974, Sansot 1973 and 1986). Each developed in his own way a direct relation between ways of seeing, hearing, and walking and modes of description of urban space from an immediate, "engaged" perspective (see Thibaud and Tixier 1998). Since the 1990s, Jean-Paul Thibaud has developed the method of the "commented walk"—the walk accompanied and narrated by one or more residents—according much importance to the sensory components and technical aspects of the walker's experience (Grosjean and Thibaud, 2001). Following on the work of these two authors, many researchers have developed ways to analyze the everyday experience of walking in the city and to represent their results, using photography, video, and sound-recording techniques. Yet as interesting as many of these are, all seem more useful for analysis than for practice, as they give little attention to architectural form or geographical context.

By contrast, the materials we have brought together could be thought of as a mosaic that enables us to capture the complex and lively public spaces of Bogotá, as well as to understand the city's diagrammatic and rapid changes. This is particularly necessary because, although Bogotá has been in the

international spotlight, there have been few studies based on fieldwork. Our research aims to fill this gap by making available not only our analysis but also the living material we have collected.

In our view, a crucially important part of that living material, and a fundamental basis for analysis, is the viewpoints of residents and users of the urban spaces, collected in the form of interviews conducted *in situ*. Combining social representations, perceptions, and evocations of use, these interviews complete the description of places and their ambiances, while provoking debate on political, institutional, and scholarly discourses on the urban transformation process.

As is usual in sociology, interviews are a way to reach the actors' social representations. In this sense, two objectives have guided us in our research: to restore the polyphony inherent in every city; and, more specifically, to juxtapose the ordinary city users' representations with those of experts or actors involved in urban policy, without necessarily assuming either agreement or opposition between them, but rather tracing the extent to which citizens have appropriated the "official" urban rhetoric.

Walking through Tercer Milenio Park, April 4, 2009.



While many researchers use interviews, the originality of our survey lies in its being largely conducted *in situ*, thereby minimizing the overestimation of social representations in relation to concrete experience. Expressed around a table, ready-made discourses too easily become detached from the richness and complexity of a living context. Working *in situ* ensures recognition of the influence of context on perception through the physical and social environment and through the situation, that is, the commitment of the user or inhabitant to an activity.

To seek users' or residents' accounts *in situ* can also allow access to a more detailed knowledge of a space in relation to various individual uses. The interviewees, as firsthand resources, offer an insider's look at the site, shaped by daily or occasional presence, that the researcher cannot match. Thus collecting accounts *in situ* is a way to let the place talk, completing the observations and reading of ambiances.

Forty-three recorded interviews were conducted between March 31 and April 6, 2009: sixteen for Tercer Mileno Park, thirteen for Jiménez Avenue, and fourteen for the Tintal zone. For each space, diversity was sought in terms of age, sex, and sociocultural status of respondents. Thus the typical users we interviewed include street vendors, policemen or watchmen, casual passersby, residents, and students. In most cases, interviewees were approached "on the fly." Presenting our work as a study on public space in Bogotá, we launched interviews with the phrase,

"We would like to know your personal perception of this place." Depending on respondents' availability, half of the interviews were conducted as walks (following the interviewees in part of their journey), half in a stationary position. Similarly, availability and the interviewees' comfort level led us to keep some interviews brief while letting others extend to fifteen minutes or even more. Two very long interviews, each more than half an hour, reflect walks along the length of Jiménez Avenue. These have a special status because they enabled the interviewees to present rather specific narratives: on the one hand, the views of architecture students describing the environment along the avenue, on the other, a homeless man who was quite bitter about Colombian social policy and who described the same avenue through the lens of a difficult struggle for survival. Two other long interviews, each about an hour, reflect walks conducted in the vicinity of the Biblioteca El Tintal (the Tintal Library) with a longstanding local resident, whose comments focused on the transformation of the neighborhood and its social life. Finally, we spent more than an hour walking in the area and interviewing the architect who built the nearby secondary school.

The Three Study Sites

The Jiménez de Quesada Avenue project is one of the major developments in the city center's urban renovation. Its goal was to rehabilitate the most important axis of the city center, and to adapt it to the new Transmilenio bus system. The creation of the Tercer Milenio Park was also part of the renova-

Researchers walk along Jiménez Avenue with two interviewees, April 3, 2009.

tion plan for the city center, an immense intervention that involved the demolition of an entire marginal neighborhood located in the heart of the city. Finally, the intervention in the Tintal zone represents the radical transformation of a peripheral district, including the rehabilitation of a garbage treatment plant and a city dump into a public library and park, the rehabilitation of various public spaces, and the construction of public schools, bicycle paths, and public transportation.

These three projects share a number of important elements: all correspond to important urban interventions that concern the rehabilitation or construction of public spaces and infrastructure, all are connected through the Transmilenio system, and all have tremendous metropolitan significance. In addition, the three projects were all a central focus of the Peñalosa administration's development plan for the city.

Many of Bogotá's urban projects have generated significant social, economic, and regional transformations. There is near consensus that their impact has been positive. However, their magnitude, as well as the different economic, social, and political interests behind them, are continued sources of controversy. At the same time, the interpretation of concepts such as public order and public interest, inherent to the public space discourse developed by successive city administrations, has created conditions that legitimize urban actions regardless of their potential impact on different social sectors. Thus an analysis of the Tercer Milenio Park reveals serious failures in terms of the project's social management by the city administration (Castro Cabrera 2003). Other interventions within the city center also leave doubts about the city's capacity to formulate policies to mitigate the negative effects of urban development, including gentrification and the displacement of some of the city's most vulnerable residents.

Though the construction and rehabilitation of urban infrastructure repeatedly produces significant social impacts, these are usually considered collateral damage and, as such, external to the projects themselves. These impacts include not only gentrification and displacement but also changes of use and redirection of investment and growth. Typically it is the poorest sectors that are most negatively affected, through loss of homes, community networks, jobs, property, and access to social services (Castro Cabrera 2003). Bogotá's urban projects, including our case study sites, have produced these patterns to varying degrees, yet public opinion has tended to justify every intervention as being in the public interest regardless of its potential social impacts.

The case study sites present observable patterns that imply important transformations, both positive and

negative, of the socioeconomic dynamics of each site. It is important to understand these new dynamics and to identify the benefits and disadvantages of each. This is too infrequently done within the urban planning discourse, which considers development projects necessary to the public interest and, to justify them, discounts negative consequences as collateral. Yet as Michael Cernea (1997) argues, administrations should recognize that the unfair distribution of gains and losses is not an inevitable consequence of urban development.

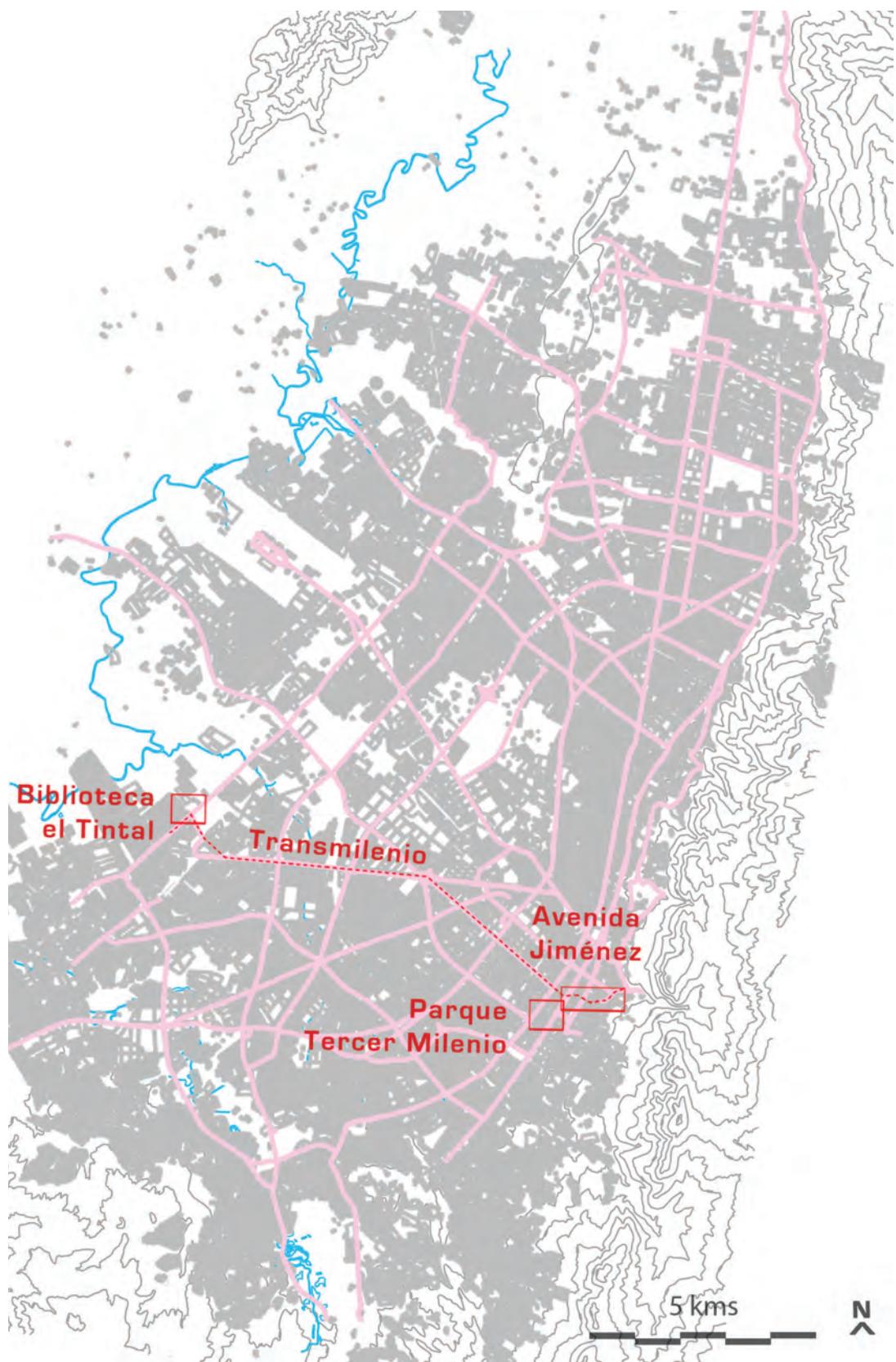
The case of Jiménez de Quesada Avenue is a good example of incipient changes of use that will likely lead to gentrification. Tercer Milenio Park, the most complex and controversial of the three sites, involved a significant displacement of population, a change in use of the public space, and a radical morphologic transformation of the entire zone. The real estate operations already underway, in addition to those projected, point to the gentrification of adjacent zones as well. The Tintal case represents the dramatic transformation of the area's social, economic, and physical conditions through the creation of public services as well as the emergence of significant real estate operations. Even though the three cases are radically different, a common feature is that each has boosted various kinds of real estate operations that may significantly transform their surroundings. Each case is part of a larger urban strategy that includes a radical transformation of entire urban areas, far beyond the actual project sites. Each will continue to undergo significant transformations due to ongoing urban projects.

Two of the sites, Tercer Milenio Park and Jiménez Avenue, represent part of an urban strategy for the center of the city, and so a brief explanation of this strategy, called *Plan Centro*, is fundamental to understanding their context. In addition, regional planning decisions adopted for this zone are considered the starting point for the future development of master plans for the entire city, so that what is proposed for the central districts foreshadows the goals for the entire city.

The vision of the city center's renovation is based on the expectation that the center will continue to be the most important historical, cultural, touristic, residential, administrative, and commercial space in Bogotá and in Colombia. The plan anticipates that in approximately thirty years the city center will contain 500,000 residents, or twice the number living there in 2005. It also anticipates that the center will be the region's most competitive economic space due to the internationalization of the economy, technological innovation, and the strengthening of economic, educational, and cultural institutions. In short, planners



Authors walk with a resident of the self-built neighborhood of Patio Bonito, arriving at El Tintal Library, April 6, 2009.



Plan showing locations of the three studied sites.

expect that the center will achieve high levels of competitiveness, becoming a strategic leader and cultural reference point for the continent. This transformation will be the result of policies, programs, and projects that encourage economic competitiveness, social inclusion, and respect for the environment through an equitable and participatory process. Policies include integrating the center with the city and region, increasing the residential population, raising residents' quality of life, protecting and recuperating cultural heritage, increasing the competitiveness of the zone, restoring the area's positive image, and promoting urban renovation. These policies are to be developed through four programmatic areas: social (inclusion and cohesion), economic (competitiveness), environmental (integration of the natural environment into public spaces), and urbanistic (improving existing elements and activities and enhancing the center's ecological, economic, and social connections with the region). In other words, the plan aims to consolidate the offer of goods and services in the city center, the interdependence of the center and its environment, and the promotion of its competitive and singular advantages. In the most concrete and immediate terms, it implies the development of multifunctional urban structures offering both attractive residential spaces and a broad range of activities for the rest of the city and region, as well as high-quality public spaces and infrastructure.

Chapter 3

Case Studies

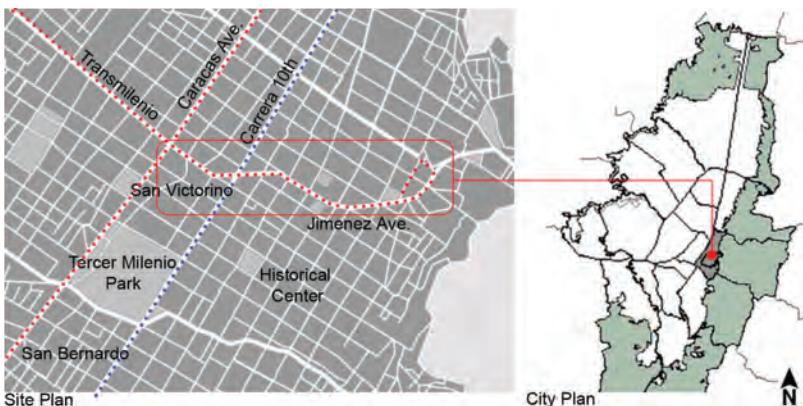
1. Jiménez de Quesada Avenue

Background

The Avenida Jiménez de Quesada, or Jiménez Avenue, is considered the most important axis of Bogotá's central district. However, in the colonial period, it was the city's northern limit. Breaking from the rational grid of Spanish urban planning, it followed the sinuous path of the San Francisco River as it descended from the *cerros orientales*, or "eastern mountains," that define the city's eastern edge. The city's founders chose to place its foundational square, the Plaza Mayor, at the base of the mountain and between two rivers, the San Francisco and the San Augustín, reasoning that the mountains and rivers represented frontiers as well as natural defenses. The city's northern entrance was a bridge, located in today's Carrera Séptima, or Seventh Avenue.

When the city started to grow beyond these natural limits, planners adapted the city's orthogonal geometry to the river's meandering path. The Carrera Séptima bridge gained great importance because it connected three key spaces: the central square, or Plaza Mayor; the San Francisco monastery; and the city's first market, the Plaza de las Yeras. Commercial use of the north-south axis determined the future importance of the Carrera Séptima, and especially its intersection with Jiménez Avenue.

By the early twentieth century the San Francisco River was essentially a sewer and a garbage dump. Due to the decisions of public health officials, the city started to canalize various parts of the waterway. Finally, like many other rivers that extend across the city, the deep gap that isolated the city center was entirely filled in, giving birth to the avenue we know today. Since then, this avenue has undergone many transformations. Enlarged at the beginning of the twentieth century, it was partially destroyed—along with a large part of the city center and the tramway along the Carrera Séptima—in the *Bogotazo* of 1948, the urban revolt that followed the assassination of the popular presidential candidate, Jorge Eliezer Gaitán.



The *Bogotazo* also initiated the exodus of the upper classes from the city center toward the north. Since then, the two-story colonial houses along the avenue have been replaced by major cultural and administrative institutions as well as modern office buildings.

Jiménez Avenue starts at the eastern edge of the city, where it meets the mountains, and continues to the Plaza San Victorino, where it becomes 13th Street. Its atmosphere changes gradually as it descends toward the west. The shops, restaurants, and mobile markets give a special quality to the street, which is crowded with pedestrians. Due to the presence of universities and educational centers, the eastern portion of the avenue is frequented mainly by students. Around Carrera Séptima the population is more heterogeneous, a mix of office workers, students, street vendors, laborers, businessmen, homeless people, and vagabonds. Small restaurants and shops are mixed with major financial and corporate centers. Approaching the Plaza San Victorino, the atmosphere changes even more. Around Carrera Décima, or 10th Avenue, just before the San Victorino zone, commercial activity becomes more informal and unregulated, movement increases, and transit is even more chaotic because of the numerous street vendors. Due to the area's diverse activities, its use changes substantially according to the place, time,

Plan showing location of Jiménez Avenue.



and day of the week. While the entire avenue is full of pedestrians, workers, or students during the day, most people leave the center at night, the resulting emptiness reinforcing its image as an unsafe place.

The recent transformation of Jiménez Avenue into an alameda, or tree-lined avenue—it is also known now as the *Eje Ambiental*, or environmental axis—is the result of an architectural project designed by the well-known Colombian architect Rogelio Salmona. The construction of a watercourse along the avenue, consisting of a continuous descending line of small basins or pools, makes reference to the San Francisco River and aims to reinforce the area's cultural heritage. The Institute of Urban Development described the project as an architectonic development that would restore the historic memory of Bogotá's citizens through the recuperation of important landmarks of the city center (Durán 2003). At the same time, the Institute predicted that the renovation would contribute to the construction of civic values, including a sense of belonging, the protection of the city and of its cultural heritage, and an interest in its development. Overseen by the Peñalosa administration, the project is one of most visible parts of the *Plan Centro*. The transformation was radical: a highly congested street was transformed into a partial pedestrian way equipped with street furniture to serve the new Transmilenio system.

Vegetation was also introduced, creating with the new watercourse a pleasant contrast within a highly urbanized zone. This transformation, together with a significant increase in tourism and the consolidation of the center as the epicenter of cultural activity, has made the avenue one of the most visited places in the city center.

The transformation's most evident consequence has been to give a significant boost to commercial activity. In some areas, this has meant replacement of activities directed at lower-income consumers with commerce directed at students and young employees. Elsewhere, much of the new commerce is directed toward tourists and wealthy consumers. So far, the changes have remained moderate. But major real estate operations are now in process, including the transformation of abandoned buildings into luxury hotels and middle-income apartments. In addition, at least eight partial plans for the city center are in formulation, which will completely transform the morphology of entire districts. Of these, at least three are adjacent to Jiménez Avenue, and one affects an entire neighborhood located within our study area. Although radical changes to the zone's social dynamic have not yet occurred, current real estate operations will possibly lead to the gentrification of its poorest sectors. Given that the *Plan*

Top

Transmilenio system and renovated public spaces along Jiménez Avenue.

Bottom

Ongoing and projected urban transformations around Jiménez Avenue.



Centro aims to double the number of residents, a substantial displacement should logically not occur. However, the experience of the Tercer Milenio Park, as well as other international development experiences, suggest that the displacement of the poorest residents is likely.

Citizens' Comments

Fifteen interviews were conducted, including both short sidewalk interviews and longer commented walks (the numbers in parentheses following the quotations below identify the recordings of the interviews). Some were conducted with couples or small groups, raising the total number of residents interviewed to twenty. They represented different generations and social backgrounds and included an apprentice gardener who comes regularly to "pass time" on the upper part of the avenue, university students, laborers at a university campus, street vendors, an elderly woman who receives social services, a lawyer whom we met in a university bookstore, students at Los Andes University and the American University, a security guard at one of the universities, two young engineers, and a homeless artist. The interviews took place on the upper end of the avenue. Interviewees could not or did not want

to continue walking down to Plaza San Victorino, so the comments we gathered focused mainly on the upper part of the Avenue.

A persistent theme that surfaced in these interviews was comparison between the avenue before and after its reconstruction. During the time of the survey, several sectors of the avenue were still under construction, and the city as a construction site was a theme evoked in many interviews, often with allusions to some of the controversies generated by the *Plan Centro*, such as construction delays and the need for costly maintenance once projects were completed. It should be noted that the construction sites made completed redevelopment projects seem more noticeable. Almost all the interviewees contrasted the avenue before and after construction, highlighting the improvements it brought about while recalling the pollution, traffic congestion, and insecurity of the recent past.

I hadn't been in the city center in a while, and I was struck by what they are doing, the construction of Transmilenio. Because of the long delays, it's been ages since they did the planning.... Well, it's good that they've finally done something. (17a)



The Plaza San Victorino
before reconstruction.

Without the environmental artery, this area would be very ugly. It would be worse, more dangerous. (22b)

Not long ago, the upper part of the avenue was described as a place congested by buses and impassable for pedestrians. Yet now it is perceived as more safe and secure.

Previously, this area was terrible. The minibuses used to come up here and then they went down through Jiménez Avenue. It was awful, the buses, the traffic jams. The area was really unpleasant for walking. (17a)

It's safer now, and easier to get into the city. The avenue has truly been 'de-slummed.' There used to be a lot of pollution, poverty, homeless people. (28)

As the rate of robbery has declined, people have started to come here more and more. (24)

In contrast to the urban bustle reigning along the lower parts of the avenue, its upper part is perceived by all interviewees as "pleasant," "attractive," "peaceful," clean, and maintained. Some interviewees likened it to a park, with its vegetation, running water, and clean air. It is also perceived as more "open," with its background of the eastern mountains. Some

also commented on the avenue's historical connection with the river. All in all, the presence of water, benches, shade, and cleanliness makes it a place where people enjoy spending time.

[The avenue] used to be a river that passed through the city, called the Rio San Francisco. (22a)

It's really nice to arrive in the morning when the hill is lit by the sun: it's an incredible view. (22a)

In the mornings, women and old men come to sit and read in the sun. So they have the sun and the shade of the trees, and they sit down to read in the mornings when the place is alive. It's a contrast I love. (22a)

Interviewees were as sensitive to the avenue's maintenance as to the amenities it offered.

It's very clean. People take care of the place. The maintenance people always keep the water clean. (19)

But it's getting worse. Just look, only litter and stuff. (20)

I've seen people cleaning the water, then I wonder if this is efficient, how sustainable it is. (17a)







While the avenue is considered a gateway to the center and a tourist area, its upper portion is mostly associated with the presence of students attending the surrounding universities. In fact, students appropriate the space. During the daytime, they sit on the edges of the basins to smoke, make phone calls, or chat. After classes, they go to the nearby bars.

I used to sit here most of the time with my friends to talk and then go into a bar. We used to come out of the bar to smoke a cigarette and sit here. But sometimes I'd prefer to sit in the landscaped area with friends; we'd sit down to talk. (19)

This meeting place is known as "the ashtray." It's a meeting point for the young people in the afternoons.... I don't know,... probably because it's a bit dull at night. But yes, this is a real downtown meeting place. (17a)

The daily presence of people supports many street vendors, who station themselves along the watercourse. At the same time, this presence animates the public space, giving it the image of a modern city.

Here the city becomes a vertical city, a metropolis that has this dynamic. There are the students, the restaurants, the Transmilenio, it's the image of a city in constant movement. (22a)

The appropriation of the space by students, or more generally by the university, is made evident by the presence of numerous security guards, who are recognizable by their uniforms. This gives the place an ambiguous and somewhat conflicted status in the minds of some interviewees. The notion that this is truly public space is questioned by a street vendor we interviewed, whose livelihood appears "threatened" by the security guards.

Here are the rich kids, upscale people who talk affectedly, with a lot of trendy phrases. (18)

Who stays around here? The police from time to time. I think it's mainly because of the people who come down here to steal things. But most of the police are actually university guards. I think it's the university that pays them. (23b)

All in all, these and similar comments put in perspective the observation made by many interviewees that the place is more secure and appealing than before. They reveal that here (as in other areas where we conducted interviews), a mutual mistrust remains between different social sectors. In particular, the presence of police, a guarantee of security to some, signifies insecurity for others. Similarly, a student was embarrassed to admit that he considered the place's tranquillity somewhat disturbed by the presence of beggars. Moreover, the district is still considered dangerous after nightfall.

Public space is one thing, but actually it's the university that's taking care of its students. Because the public space.... You can go down there, and those streets are horrible. So what I think, and I could be wrong, is that the university has something to do with this.... I think this place is like it belonged to the university. (23b)

Sometimes there are lots of homeless people. I don't mean to discriminate against anyone, but let's just say it's a little uncomfortable when you're just calmly walking along and someone comes to you asking for money. That's what bothers me a little. (19)

It can be very dangerous at night. Once, in fact, we went out at night, and on 19th Street passed



a man holding his ear, it was bleeding...that was really upsetting. (17a)

As one descends the avenue, the presence of passersby intensifies, while the pedestrian path gets narrower, causing collisions in a complex and often congested circulation network. The atmosphere of this sector is negatively described in terms of contrast: between the tranquility of the upper sections and a feeling of "tension." The perception of the watercourse disappears under the invasive effects of pollution, traffic noise, congestion, the smell of exhaust fumes, and dirt and noise related to construction. The tension increases as one walks down the avenue, producing a gradual immersion in its bustling activity and saturated atmosphere.

As you come down the avenue it becomes more stressful, because of the crowd. San Victorino is crowded, and you have to watch out for your belongings. (22b)

Here everything feels different. The noise, all the commerce, start to become annoying. The noise is tiring. (22a)

In a more positive mode, the interviews evoked the contrast between the urban landscape and the spectacle of the moving passersby. The descriptions of this sector reveal the effect of telescoping between the old city, still present with its low-rise houses and









narrow streets, and the modern city with its high-rise office buildings. Similarly, interviewees mentioned the social contrasts arising from the diversity of commerce and the closeness of different social classes.

Around Jiminez and 3rd or 4th Streets there was a French restaurant.... And right in front you can see the Lerner Bookstore and the 'crepes and waffles' restaurant. You can also see the contrast between the upscale students of the Los Andes and Rosario Universities and the lower strata of street people. There's also an Arabic restaurant, also very deluxe, reserved for the rich folk. (28)

To the left is La Candelaria, that's the historic part. You can see the contrast between the old low-rise buildings and the streets for pedestrians. Although there are spaces for pedestrians, they're very narrow. And on the other side are the modern buildings. They're like two cities living next door to each other. I like this coexistence, not everything has to be modern.... Here it's not only people but also the historic and the contemporary that live together, those who have lived here all their lives and those who have come here to study.... (22a)

The urban landscape of Jiménez Avenue and the social mix found there constitutes, from the interviewees' point of view, the main signs of Bogotá's renewed metropolitan identity.

When I walk around here, I feel that Bogotá has improved a lot, that we're getting better as a city, not just in terms of image but also as a society. Here there's more proximity among people. (22a)

Continuing down the avenue, between Carrera Séptima and the Plaza San Victorino, the few interviews we conducted were dominated by ambivalent perceptions. The section of the avenue that prompted unanimous comment was the intersection with Carrera Décima, crowded both by an informal sidewalk flea market and construction for a new Transmilenio line. The intersection is described as chaotic, extremely polluted, and unsafe. It is associated with thefts, drug traffic, and criminal activity. According to two students of architecture we interviewed, the density of activity and traffic have made the intersection a "world apart."

Damn It, there are police everywhere.... You see the guy right there, he had a computer keyboard.



Yeah, damn it, look at that, there are cops every ten meters. And there are cops everywhere, but there's still crime—robberies with knives and all other types of crime. (29)

The Carrera Décima makes me think of chaos: a truly impressive degree of disorder. I'm a little afraid here because there are a lot of robberies. That's the image I have; it makes me think of dirt and noise. It's not even an image. It's the reality. (22b)

Generally speaking, the rehabilitation project in this sector has not erased the avenue's bad reputation or its "dangerous" memory. Yet change appears to be occurring. One of the two architecture students described this sector as a public space that is being gradually tamed, and whose qualities beyond the dirt and noise are being discovered. These students—who were among the few interviewees willing to continue the walk this far—see this sector of the avenue as an urban model, due to its image as an open space, its amenities, and the presence of the public. Their descriptions, evoking the choreography created by



the passersby, confirm our observations about the impact of new amenities provided by the street furniture.

"I've learned to like it somewhat, but the first few times I came here I was frightened because you always hear it's one of the most dangerous places



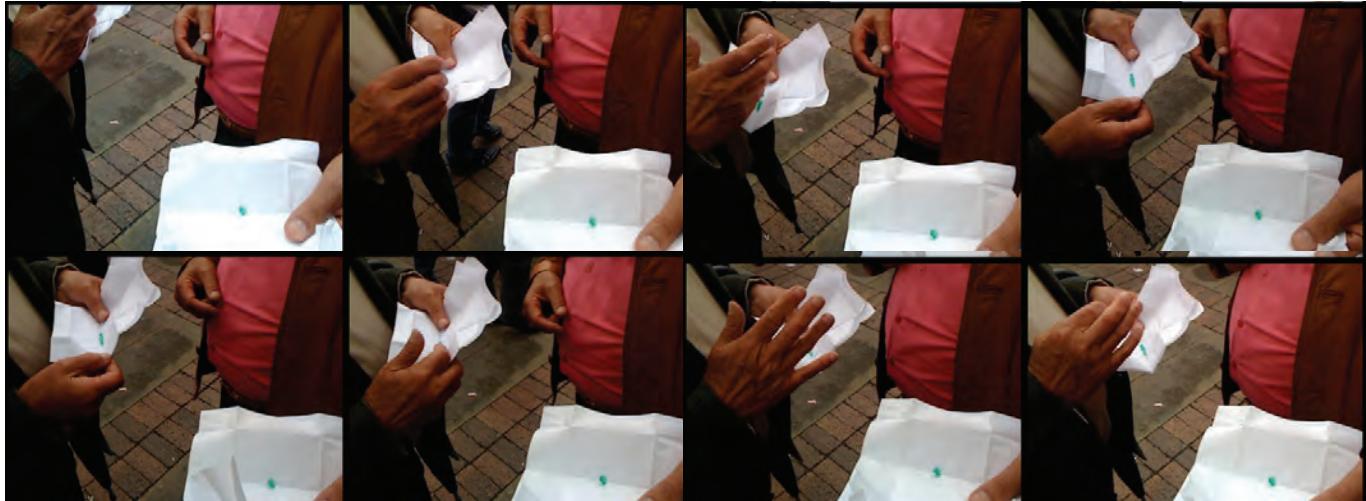
around.... Gradually you begin to notice the good things and to figure out that it's not that dangerous, but you still see plenty of bad things. The water is very dirty, there's a lot of noise here. It's not a place to sit down. (22b)

In the Plaza San Victorino one arrives at a space to relax. It's extremely open. There are a lot of people, but you don't perceive the crowd. Here, in contrast to the environmental artery, which tends to carry you along, one likes to stop and sit for a bit. Maybe that shows the influence of public space on people.... (22b)

If, for most of the interviewees, the construction represents the possibility of greater social harmony and a more cohesive society, Jiménez Avenue is nonetheless recurrently described in terms of its appropriation by particular social groups. Thus the Plazoleta del Rosario, associated with the poor and working classes, is also occupied by students of nearby universities and by informal activities that attract street vendors and performers. The portion of the avenue between the Carrera Séptima and Carrera Décima is also where the emerald sellers, shoe-shiners, beggars, and indigents tend to congregate, and the appropriation of public space by these groups regularly prompts comments about Colombian society as well as questions about the nature of public space. While daily

contact with homeless people makes the experience seem "normal," it remains disturbing. This is true also of street commerce, such as the sidewalk emerald trade, which brings together dozens of merchants every day on the same sidewalk. The existence of illegal networks is more or less known and prompts further comments. One interviewee, who lived in the street, described Jiménez Avenue as a place of social conflict and struggle where merchants negotiate access to spaces for commerce with money and sometimes





violence. Reflecting a kind of Latin American fatalism, street commerce is often described in terms of ambiguity: while not legal, it is frequently tolerated.

Between the Carrera Séptima and the Carrera Décima is where I feel most vulnerable. There are a lot of men, and that's uncomfortable for a woman. (22b)

There's some insecurity in the Plazaleta del Rosario because of the popular markets and street vending. (28)

I think it's terrible to come here and see the homeless people inhaling solvents. It really hits you the first time you see that. Later it becomes normal, and that's horrible too. (22b)

Emeralds, yeah, it's a mafia. These vendors are in direct contact with the families who own the mines. You have to be from that region to have the right to sell the stones, to have the connection. That doesn't belong to the Colombian people, it belongs to certain families... they're armed and they intimidate people as if they were a paramilitary. Maybe they're allies of the paramilitaries and the narcotraffickers.... (29)

In the streets of Bogotá, certain categories of users are immediately recognized, such as the police, security guards, and the military who are instantly identifiable by their uniforms or their fluorescent jackets on which their functions are printed. Similarly, their carts of displays make street vendors recognizable. In addition, indigent people who live in the street are recognized by their poor and ragged clothing. These indigents are also considered to be highly unsocialized because of their disoriented behavior and habit of sleeping on the ground or in the middle





of passageways. The fact that these categories of citizens are visible all over the avenue acts as a social labeling factor or indicator that marks public spaces.

When commenting on these themes, interviewees frequently revealed personal judgments about other social groups, often relating the question of social diversity to that of security. Their point of view differed according to their own social class. Thus upper-class interviewees (lawyers, students, engineers) expressed their ambivalent opinions about the poor and homeless, frequently linking the presence of these groups to the feeling of insecurity they felt in certain places, especially between the Carrera Séptima and Carrera Décima. As noted earlier, their proximity in the public space often prompted discomfort and embarrassment, even among those who hesitated to admit it.

Despite all of this [the improvements], there are still street people who come down from the eastern mountains or from the peripheral neighborhoods and mix with the other people. (28)

Described as a source of disturbance and a violation of public space, unregulated street vending is also considered a synonym of insecurity. At the same time, many interviewees recognized it as a necessary evil. Faced with an economy that offers few options, no one denied the right of street vendors to go about

their work, and some even described working in the street as a contribution to the national economy.

Now the problem of street vendors has diminished, but the chaos did not disappear because of the unemployment rate. The informal labor market is always present in Latin American cities, but they keep looking for solutions, the city administration is still working on that. (28)

In this country and in Latin America, public space is a place to earn a living somehow. So you find people who shine shoes or organize betting on animal races. It's a crucial factor in the city's economy. (22a and 22b)

I think street vendors represent a step backward; it's unfair that these people don't have work; it's miserable to deny them the chance to work, but still it's not good to have them occupying the public space. (22a)

At the same time, upper-class interviewees demonstrated a high level of agreement with the official rhetoric of urban regeneration. While describing the recent improvements as a source of greater coexistence and social diversity, they also associated the improvement of comfort and upgrading of the urban landscape with a feeling of greater security, a main



objective of the rehabilitation project from the government's perspective. Remembering the past, one interviewee, a lawyer whom we met in a university bookstore, recalled the huge informal market that had grown up in the Plaza San Victorino and invoked the image of the famous Cartucho quarter, with its slum dwellings and illegal activities. While recognizing criticisms of the redevelopment, he concluded that radical renovation had solved "radical" problems.

Now there are nightclubs and international restaurants because there's more security. Because of the police station right here in Jiménez.... This has encouraged an influx of students and people in general. (28)

There's going to be a big change, because they're building a new Transmilenio line in the Carrera Décima...which is going to renew the sector up toward Las Cruces. There are a lot of people who criticize it, calling it an attack on the history that's contained in these houses, but maybe radical actions are needed for radical problems. You know this place did not exist before, don't you? It was taken over by street vendors and was filled with kiosks.... The change is radical, a very strong action by the city, accompanied by a lot of criticism, but at the same time it gave us something that's very good for everyone. (22a)

While some commentators valued the area's greater tranquility, the two architecture students argued that it was precisely the presence of people that created security.

The presence of people generates safety, as security is not just the police but rather people who take care of each other.... That's what public space is: it brings people together to take care of each other through living together rather than through police repression. (22a)

Far removed was the testimony of interviewees who worked or lived in the street: they saw the question of safety and security in very different terms. A street vendor who had worked many years near the university described her good relationship with the students who were her principal clients yet emphasized her daily fear of being a victim to the security guards, who were "regularly after her." In fact, one of the strategies that street vendors and the homeless must adopt to defend themselves from the defenders of public order is to be constantly prepared to move.

Of course if a student is going to sit there I move my cart. But they see us working and generally go sit somewhere else; they respect the space.



Sometimes the university kicks us out. Some of the security guards treat us very badly....

[So, do you think of this as your space?] No, not mine. Because they can throw me out any time, and I can't say this spot is mine. I fight for it, because it's the source of work for my brother, and he's fought for it too. This spot means a lot to us. We stay here even when it rains, we get wet, and when the sun comes out, here we are.

When they tell us go away or move we have to find another spot in the park. (23b)

We also met a thirty-year-old homeless painter who was born in Cali and returned to Bogotá after ten years in France: he now sells arts and crafts and

marijuana, sleeping in the street or in cheap hotels. While for some, police surveillance fosters a sense of security, for this resident it represented a direct and indeed constant threat.

I'm very angry because I can't do what I want here. I mean, I paint, and here it's very hard for artists, so I'm forced to make crafts.... Well, I'm selling them, and I sell some marijuana and that's about it. As we say, I try to cope, because I can't paint here. Here, painting is only for the rich.

We've never had a president with such security regulations. Things look better, but problems are the same. There's a huge corruption problem, a huge social problem, people are dying of hunger, people are living in misery, they are forced to

steal and to kill to survive. That's not normal in a country like this, which isn't at all poor. Colombia a poor country? If Colombia is a poor country, then I'm Santa Claus. No, I'm not Santa Claus, and Colombia isn't poor.

There are guards everywhere. Even in the toilets there are security guards. (29)

The situation of this artist is precarious not only because of his illegal activities (selling marijuana or arts and crafts) but also because of his lack of housing. Fearful of sleeping in the street, when his income permits, he sometimes sleeps at hotels, some of which try to extort money from him. He is also threatened by new and sometimes violent popular campaigns against prostitutes, drug addicts, the homeless, and homosexuals associated with an ideology of social cleansing.

Once I had the idea to sleep up there, in the street. It was cold and I didn't have a good sweater. Yes, it's possible to sleep there because we're well protected. The question of security in Bogotá is difficult. I try not to sleep outside, something that's not easy in a society where you have hotels at 100,000 pesos per night. And you sleep but they'll wake you up to ask for another 100,000 pesos. So, yes, I sometimes sleep in the street but not just anywhere. And most of the time I don't sleep at all, I try to sleep during the day, but it's scary to sleep in the street of Bogotá.

People who sleep outside, that is, the homeless, are at risk of getting murdered by killers. I am not talking only about this place. We've had flyers saying we'll kill all the gays, all the hookers, all the homeless people, all the drug addicts. It is a bit scary, but I'm only afraid of God. I can't talk too much, you never know who's who, but it's hard. There's no mercy. ... People get killed in the street because they're sleeping there....It's pretty cruel.... Because there are guys who come by in cars, they approach you, they say 'fuck you,' and then they shoot you. These are guys who act like Nazis, you know.

They kill people they don't like. Yes, there's more security. But it's clear that it's only for the rich and for the oligarchs.... (29)

In the context of omnipresent supervision, it is worth mentioning that surveillance is mutual; the security guards are themselves monitored. During our conversation, the street vendor in the university sector of the avenue observed and pointed out to us the



mistrust that the guards were demonstrating toward us. They were recognizable by their uniform and dog, and we saw several of them continuously observing the periphery of the nearby university. And yet all of the monitoring does not produce a uniformly shared sense of security.

[During the night] I wander around, trying to not fall asleep, because if I fall asleep I'm scared, not really scared because I have faith in God, but it's something I can't explain. More worried than scared. I'm not afraid of dying, because I have to die sometime. It's more like an ambiguous feeling of insecurity in a country where there are no laws, or the law is a dead letter, as Bolívar said. (29)

[A security guard:] I'm forbidden from speaking to you, because you could bribe me or extort something.... Here the cameras show everything.... It's the same with girls, I can't speak with them or greet them. That's my job and I have to respect it. (24)

Chapter 3

Case Studies

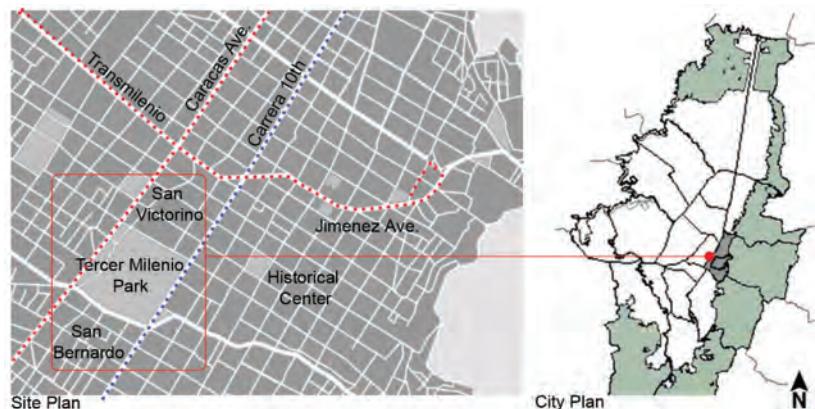
2. Tercer Milenio Park

Background

Tercer Milenio Park is centrally located in the area known as Los Martires, two blocks west of the presidential palace. Before its transformation under the Peñalosa administration, it had been a low-income district. Proposals to turn the area into a park had already been made in 1947 and 1960, as many considered state intervention necessary in a zone that had been identified as problematic as early as the 1940s, and that, despite being one of Bogotá's oldest districts, had never been recognized as a legitimate part of the city's heritage (Perilla 2008).

Since the colonial period, Bogotá had centered on the Plaza Bolívar, located a few blocks east of Tercer Milenio Park. Justice, religion, and local government had always been concentrated and represented there, and until the beginning of the twentieth century the plaza was also the preferred residence of the upper classes, who built elegant stone-fronted houses around it, in contrast to the lower-classes adobe homes found in outlying areas (Perilla 2008). Until the nineteenth century, the district of Santa Inés, site of today's Tercer Milenio Park, was such an area, both rural and poor. As the city started to grow, mercantile activities expanded northward, along the axis of the Carrera Séptima, leaving Santa Inés neglected. Colombia's opening to the international economy at the beginning of the twentieth century did not change this pattern. To create an image of modernity and attract foreign investors, the city built prominent hotels and public buildings. It also expelled certain socially unacceptable establishments, including brothels and the taverns known as *chicherías*. While the institutional city continued to expand northward, the forbidden practices were pushed to the southeast and west sides of the city.

After the 1948 riots, the bourgeoisie migrated northward from the city center toward the wealthy new district of Chapinero. The neglected district of Santa Inés became a center for illegal activities and expe-



Plan showing the location of Tercer Milenio Park.

rienced increased rates of violence, homelessness, and instability. Known as the Cartucho, the zone increasingly served to concentrate marginal sectors that included poor families, cooperatives of recyclers, and local mafias, and was marked by drug dealing, prostitution, and homelessness. Physically, the area became highly deteriorated. Located just blocks away from the presidential palace, the Cartucho was beyond legal control. It presented a major obstacle to revitalization plans for the city center.

Fifty years after the *Bogotazo* of 1948, the Peñalosa administration launched the most ambitious projects for the center's renovation seen in decades. One of the main elements of the *Plan Centro* was the creation of a metropolitan park in the Santa Inés sector, involving the demolition of an entire central district of nearly twenty hectares, the displacement of 3,030 families and 1,620 commercial establishments, and the dislocation of a further 2,000 people considered part of the zone's floating population (Castro Cabrera 2003). Although very controversial, the project ultimately received the support of both the media and the public. Today, city authorities and citizens alike are proud of the disappearance of the Cartucho, and the project is widely recognized as an achieve-



ment of Peñalosa's administration. Nevertheless, despite its success, the planning process revealed clear deficiencies in terms of managing its impacts on residents, many of whom were never properly compensated (Castro Cabrera, 2003).

Authorities described the Tercer Milenio project as key to recuperating the city center (Durán 2003). Politicians presented it as an opportunity to increase Bogotá's competitiveness and improve its quality of life, and these discourses were largely replicated in the media. At the same time, the city was considered to bear the responsibility for managing the project's negative impacts on residents, and to mitigate these, a social strategy was promised. Yet according to urban researcher Magali Castro Cabrera (2003), there was a general consensus that conditions of marginality in Santa Inés could not become any worse, and this view probably impeded serious efforts to manage impacts. Today it is difficult even to measure the project's impacts on former residents because evaluation and monitoring programs were never implemented.

The intervention completely transformed the Cartucho. Of the entire district only one building remains, and along with the physical disappearance of the neighborhood, the social capital represented by the communal networks constructed by residents through the years has also disappeared. What was widely recognized as the most dangerous zone of the

city is today a metropolitan park that has visitors from diverse parts of the city, is the setting for cultural and recreational activities, and has even become a stage for social protest.

The park is the heart of a zone of the city center that has undergone significant transformations, including the renovation of the Plaza San Victorino and the adaptation of the main avenues around it to the Transmilenio system. These operations, along with the construction of the park, have fundamentally reshaped the sector's physical and social dynamics and, as with Jiménez Avenue, have prepared adjacent zones for similarly far-reaching transformations. A large mall is currently under construction on the north side of the park, and the entire San Victorino district will be the subject of a partial plan for public space renovation. The San Bernardo district, located on the south side of the park, will also be the subject of a partial renovation plan that will reconstruct entirely the district's urban fabric. Although this project includes new mixed-income housing projects for area residents, it is unlikely that the poorest residents will be able to afford them, leading to new displacements. On the western limit of the park, residential development is projected as well. Once these interventions have concluded, an area of more than fifty hectares will have been radically modified.

The design and construction process for the park, lasting almost seven years, was difficult and some-



times violent. Although most home owners agreed to sell their properties, leaving little need for governmental expropriation, most residents were renters, and evicting them from their homes and workplaces was not an easy task. An even greater challenge was to force out the organized crime rings that controlled much of the zone.

The government's efforts to mitigate the project's impacts were not entirely successful, but they did represent a significant advance over previous development projects in Bogotá. A neighborhood census was organized and information campaigns created to help shape social policies, which were formulated in discussions with neighborhood delegates. An office was created to direct the implementation of the resulting programs. These included social mentoring for at-risk residents, strategies for information and economic support, creation of an industrial park for 190 graphic arts companies relocated from the area, establishment of an association to relocate 1,140 recyclers, payment of economic compensations, and a program of fixed rents for displaced families.

Despite those efforts, Castro Cabrera (2003) argues that the process was miscalculated and that the entities responsible developed an organizational culture

that was ineffective in coordinating the process. She adds that the state's responsibilities were not clearly outlined; that slowness and lack of coordination impeded the development process; and that the administration underestimated the emotional and economic costs of displacement, disregarded the need to reestablish social and family networks, and failed to devise alternative development plans to reduce income losses. Although some sectors received sufficient compensation, failed assessment procedures cost many residents their right to reparations, and lack of information about residents made it impossible to locate many of them for inclusion in social programs. All in all, Castro Cabrera estimates that many former residents are worse off today than before the project. If so, a project intended to create a more cohesive and inclusive city had the opposite result for at least some residents.

Citizens' Comments

Sure, on Sundays ... people come out to do aerobics, play football, just to relax. Most come to relax, take the children out. Like any park. In the afternoons, mainly the afternoons, after midday, Sundays, holidays, folks come out in the afternoon. (07)

Above Left
 Ongoing urban transformations

Above Right
 Solid-void plan of the Tercer Milenio Park zone.

To understand the park from the perspective of its users, we interviewed twenty-one people, either alone or with their families, in different parts of the park. Interviews were conducted in early April 2009, on weekdays and on Sundays, in the form of eight short interviews, either stationary or moving, and eight longer ones, lasting between seven and eighteen minutes, of which half were done while walking. The sample of interviewees reflects the diversity of park visitors as well as of services offered within the park. Thus in addition to families who were there to relax, we interviewed two street vendors, a police officer, two social workers, and a bar manager, as well as four families who live nearby.

In general, the park is widely appreciated: it has become a pleasant and popular place. Responding to the question "How do you perceive this place?" answers were enthusiastic, especially from families, employing vocabulary like "great," "fantastic," "magnificent," and "attractive."

I think it's great! (03)

It's beautiful! (06)

It's really cool ... everywhere. (11a and b)

I would say the change in society generated by the park has been really surprising.... It's been enormous. (15)

The park is also described as a place designed for relaxation, entertainment, and recreation, a perfect place to *dominguear* (go out on Sunday), a place where one feels "at peace," away from the bustle and noise of downtown streets, including Jiménez Avenue.

It's ... a very pleasant place. When I have had time to be here in the park, I feel peaceful, away from everything and the noise and the other things that we see in the street. (09)

The park isolates you from the chaos of the street. This avenue is one of the most chaotic streets of the city. You can go down there and you will observe terrible levels of noise and pollution. (02)

In addition to being traversed by those who work in the area or go shopping and those who take public transportation along the Carrera Décima, the park also offers the opportunity to come during the week and take a break, read a book, or eat a sandwich.

A lot of people do this, take this route, because people nearby ... it's a mall, some people use the Transmilenio system. So what they do is cross the park to get to the station. And those who



work here and need to catch the bus over in the Décima cross the park too. (03)

I work nearby. So when I arrive early, I come here to read a little. (02)

You often see people bringing their sandwich, their soda and chips, at lunch time in the nice weather. (03)

These activities and uses are not exclusive: some people who pass through the park during the work-day come back on the weekend for recreation.

Since I sell clothes, I usually take this route, from here over to there. And I go over to Carrera Tercera



where I like to eat fritanga [a popular traditional dish] on Saturdays, there's a good fritanga place, cheap and good. (06)

"Practicing sports," "playing football," "walking the dog"—the interviewees list their own activities and invite us to observe. It is like a spectacle, especially on Sundays when many activities take place in the park: lying on the grass or rolling down hills or on the grass, vending from small kiosks, bicycling or skating, or playing in the cold water (even though swimming is banned). These are common scenes that interviewees appreciate.

People have a good time here ... going around looking at all the kiosks, the flea markets. It's fun here. Instead of staying at home, people come here. (11b)

Referring to the coming and going of people, the freedom of movement, and the mixing of generations, interviewees revealed the ease with which they had appropriated the space. This was especially true of children.

We come here so our son can ride his bicycle, or skate, or run, because the apartments over there are quite small.... And for walking, I like it here; there are paths.... On the weekends there are sports activities too. The people from the recre-

ation and sports department come over and do aerobics and things like that. (03)

You can see all kinds of people here, newborns, pregnant women ... even elderly people, very old;... we're here playing football, relaxing ... a cocktail, a cold drink. So, it's been great. (15)

In general, bringing children to Tercer Milenio represents an important reason for going there. Indeed the park is widely considered a place designed especially for children.



Through its different uses, Tercer Milenio Park appears as a place that works at different scales. Many interviewees described the park as a place for "daily life," visited on weekdays by families or employees of the surrounding areas as well as by students of the nearby schools who come to practice sports. There is also the army battalion and the nearby police station whose members come to the park for training. In general, for those who come regularly, Tercer Milenio is described as a place where one can recognize the familiar faces of nearby residents.

Friends meet here. Loads of people come here. I just met some of my friends who were walking in the park with their families. (11b)

You meet lots of people you know in this park, people from the neighborhood, from Eduardo Santos or San Bernardo. (12a and b)

Besides being considered a place of interrelationship and neighborhood, Tercer Milenio also functions at a metropolitan scale. Interviewees incorporated it into their routes from home to work, thus weaving it into larger regional patterns of movement. They also frequently linked it with other public amenities constructed throughout the city, like the Transmilenio. In addition, they saw the park as an open space serving the entire city.

People from every class ... people come here from all over the city. (03)

An important factor in shaping the park's meaning for its users is their consciousness of the site's history. The memory of the former Cartucho is still strongly present in the minds of many interviewees, who routinely referred to the danger that the area used to represent and contrasted the old Cartucho with the pleasant conditions offered by the park today.







To me it seems like a spacious park, recreational for the children, in a good location. They fixed up the area because it was bad. Sure, there's still a small Cartucho [slum area] over there, but still it's a nice park. It's well looked after. (10a and b)

It's great for entertaining the children. Well, actually, the Cartucho used to be here. Now it's a place where children can relax. The park has a lot of good things. At the very least it's removed the danger, erased the bad image. Because before, it was horrible. (12a and b)

The imagery of the Cartucho remains impressively strong for interviewees. Some described it as a "relatively tough zone," others as "very dangerous" and "a place of absolute misery." Bogotá residents often refer to the Cartucho as "*una olla de mala muerte*," or a cauldron of death. Many considered it too dangerous even to cross.

I worked in this area when it was the Cartucho. You couldn't cross it, you couldn't walk.... (13b)

Interviewees also frequently referred to the Cartucho as if it were "another city," one characterized by every kind of crime, from muggings to arms dealing. Several interviewees referred to rumors that thousands of people had been killed and buried there.

I can't imagine how many dead people are lying here. Thousands, thousands of dead people. Because it was terrible.... (06)

In addition, interviewees linked the negative memory of the Cartucho with the presence of marginalized populations, including the homeless, the indigent, street children, and beggars. The vocabulary used to describe former inhabitants was sometimes very harsh: "*jibalos*" (drug dealers), "*desechables*" (rubbish), "people of the worst kind that could be found in the city."

Another common theme was the disruption caused by the urban renewal project and people's efforts to adapt to the demolition of the Cartucho. An employee of a social service organization, currently working on behalf of street vendors and displaced people, described the process, in which he had participated:

People who wanted to participate in the programs of the district did so. A lot of people were given housing in other parts of the city. They gave them a housing subsidy and relocated them. Others went from here to the San Bernardo neighborhood. Others went down to the Cinco Huecos, the area behind the battalion, because basically that street is just for taking drugs. People were displaced, but it was difficult to get everyone out.



They started with demolition. They started with everything in Sixth Street. It was much easier to negotiate there because from Seventh Street onward there was a lot of industry. They negotiated with the landowners and businesses that were there—they gradually kicked them out. The point of conflict was here....

The people who lived here and opposed the project? The leaders themselves. It was all commercialized here. Rumor had it that about 50 million pesos changed hands daily selling arms, drugs, and anything you wanted. All black market. So obviously the park wasn't convenient for people who were profiting from this. (13b)

Two views of the former Cartucho, from ESCOVAR Alberto., MARTIN Marijke, MARTIN Gerard, GOOSSENS Maarten. (2007). Editors. Bogotá: El renacer de una ciudad. Bogotá. Editorial Planeta Colombiana (copyright reserved).



Another interview with two elderly women revealed a different dimension of the story. One was selling takeaway food; the other belonged to a family of car mechanics. Their story reminds one that the Cartucho was not exclusively populated by criminals: automobile repair workshops were an important economic activity in the area. These two interviewees lost their jobs due to redevelopment, and they regretted having to leave the neighborhood where they were born and to which they were attached.

We lived here in this park. We were born here, in all this area there were houses. They destroyed everything and built the park.... We lived in a rented house.... Well, this park seems good to me. But at the same time many lost their jobs. Those who made a living here are now out of work.

I used to sell coffee and empanadas.... [A]fter the demolition of the neighborhood, I became unemployed. Now I'm living on the charity of my son, because as an elderly person, we don't have work anywhere.

Some people didn't live here but just had their workshops here. Whoever had a workshop worked during the day. And at night other people arrived and paid rent to work there. Young men would work at night. All of this area was repair shops.

Lots of people were brought up here and got ahead in life. This area has always been badly stigmatized. (10)

The testimony of displaced former residents helps fill in the story of the park's creation. But for many people, the very lack of information about what happened to former residents has become part of the park's meaning.

I don't know what happened to those people.... There were some who gathered in other rundown parts of Bogotá, because there are plenty of those. Probably others returned to a normal life, or maybe they went to other cities. (08)

Despite the enormous disruption caused by the park's creation, even some interviewees who had been displaced saw the park's positive aspects, and indeed frequented it. Thus one of the women mentioned above, interviewed in the park, remarked that it was spacious and provided good recreation for children; according to the other, the government had "fixed up the area, because it had been bad." These sentiments are in accord with the many other park users who describe it—always with reference to its past—as bringing "new life" to the neighborhood, a "project of social interest," or "a point of reconciliation with the city."



The discourse about the park's history is closely linked to views about its current safety. The park is perceived by many people to be a safe place, in part because of the prominent presence of the police.

Now yes, because people pass by. The police...the army pass by here, so this area is safer.... Yes, sure, it's very good now ... this area is very safe. (16)

The Transmilenio system seems to have helped with security: several interviewees described the congestion that used to surround the bus stops as favorable to aggression and thievery.

Caracas Avenue used to be impassable. First because there was no Transmilenio, and the avenue was congested with buses. So there was plenty of opportunity for thieves to escape. But since they got rid of the famous Cartucho and set up the Transmilenio, things have changed a lot. (08)

Despite these positive remarks, the question of insecurity remains present for interviewees, many of whom say they know someone who has been attacked. Some interviewees said residents of Bogotá still hesitate to visit the new park and claimed that no one dares to cross it at night. Asked whether the park seemed unsafe, one interviewee answered:

No, well.... Indeed I've seen people who were robbed here, so it does seem so to me. (03)

Another, asked whether it seemed like a good place to relax, replied:

Sure, yes, although they say that people get robbed around here, but I've never been robbed coming here. (01)

These feelings of insecurity are less related to the park itself than to its surroundings, especially a nearby area known as the Bronx, or the Little Cartucho, toward which crime has shifted. Despite its location behind an army building whose entrance is watched by the police, the Bronx is described as isolated, surrounded by arms and drug dealing, and controlled by organized crime.

Yes, behind that building there's a rundown area, the so-called 'Bronx.' But that's very small compared to what this used to be. It was a whole district, but here it's just two little streets, very small, but still it's a problem for the city because the criminals come here and it's very difficult to throw them out. They vanish into the crowd, and if a policeman enters they'll even kill him, rob him there.... (08)



Meanwhile, marginalized people continue to frequent Tercer Milenio Park, as it is "open" to the surrounding areas. The manager of a bar within the park described the resulting "inconveniences" to his customers as well as his own efforts to counter them.

They [former Cartucho residents] pass by, they go up and down. But if they make problems here, we call security. Because there are people who are quite problematic and stubborn.... For example, if one of those persons comes by and I tell them, 'Please don't beg here,' because it's not allowed, they get angry, they become wild and rude. So right then you have to go to security.... So that tourists can feel safe, so that you can sit down and feel safe.... In this kind of a place you get to know a lot of people, some in bad ways, others not: very decent people, very embittered people, very good people, very normal people... If I don't try to take care of customers.... I have to take it upon myself and say, well, here there will be respect. (07)

As on Jiménez Avenue, the question of security is not seen the same way by everyone. To street vendors, the police represent harassment rather than protection. Asked whether it was easy to work in the park, an ice cream vendor replied:

[Is it easy to work in this area?] ... A bit complicated as the police bother us a lot. They come

after you, sometimes they take your cart, leaving you without work.... As I was saying, one can't find work, there's a lot of unemployment. My daughter's husband also works here; he also sells "Bon Ice," like me. He also has worked in construction, but he can't find work either. Yes, if the police are around they don't let us come here.... But me, there are times when I go over there. I say I'm going to look for my son-in-law so they let me pass. 09)

A policeman explained his point of view:

What we're doing here is a labor of prevention. The other thing is to make confiscations. These confiscations are made with a legal representative and a delegate from the city administration. The merchandise is confiscated; a legal document is written up, an inventory of what was seized. The merchandise is taken to a city warehouse and is returned to the person as long as there's no further offense within fifteen working days. If there's another incident, the goods aren't returned. Street vendors are prohibited. (08)

He also explained why the police's efforts to remove street vendors are not wholly successful:

This is how it works. The police, despite all their efforts, can't cover the entire city. There are very

few police officers for all of the public space, and there are more street vendors. It's very difficult for the police to control the whole city and all the public spaces.... Look, public space should be public space, right? That means not occupied by vendors. You want to pass and sometimes to pass you have to step down into the street. These are focal points for crime, right?... People congregate there and that's where the thieves approach and steal money, steal mobile phones, steal and disappear in the crowd. That's the problem.... It's always easier to pass through a street where there are no street vendors ... a street where there are only pedestrians. (08)

A third point of view is provided by representatives of the Instituto para la Economía Social, or Institute for Social Economics, a nonprofit organization that seeks to mediate the situation by providing a sanctioned space for vendors who participate in their program to use on Sundays.

Security, whether in relation to conflicts over street vending or the presence of former Cartucho residents, provides the dominant context in which interviewees brought up the issue of coexistence between people of different social backgrounds within Tercer Milenio Park. Their hesitations and allusions suggest that they may have been minimizing the conflictual dimensions of this coexistence. Yet the park is considered to be a relatively tolerant public space. During the summer of 2009, its social inclusiveness and security were challenged in a new way, by the arrival of more than 1,000 families displaced from the countryside by ongoing warfare and temporarily resettled in refugee encampments within the park (Wecker 2009).

We arrived here this morning and realized there are displaced people, but the park is managing it. The park lets them settle down here in a campsite, as you can see. My understanding is there's a leader, the person I talked with. They are people who come from another city, although I've seen people I used to know from the Cartucho who are passing themselves off as displaced persons.... (13b)

In the final analysis, Tercer Milenio Park appears as a space both part of and apart from the city, a "different" space. If parks in general fill this role, it takes on particular force in the case of Tercer Milenio: perceived as a place of social appeasement, it is at once an open space that carries the memory of the neighborhood on which it was built, and a memory that symbolizes the hardness and violence of Colombian society. An interviewee muses out loud that Tercer Milenio "is surrounded by power, all sorts of power—the power of nature, the ecclesiastic power, the power of the sky, the police power, everything is here. Unreal..."





Chapter 3

Case Studies

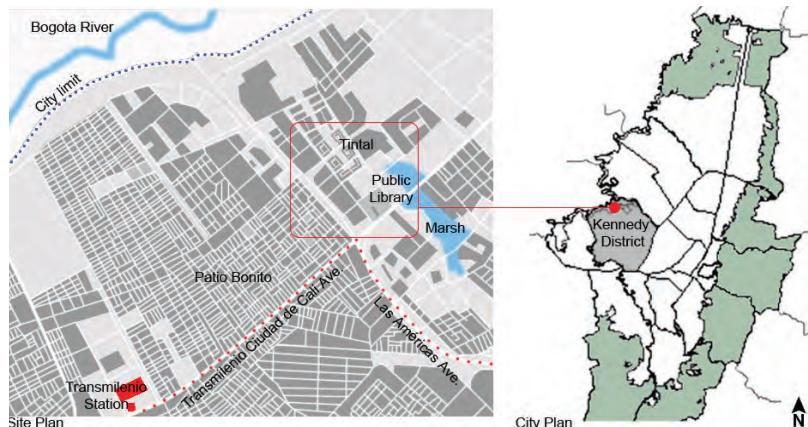
3. The Tintal Library and Zone

Background

The Tintal zone borders the recently constructed Tintal public library. One reason to study this area is that it is one of the peripheral zones in Bogotá that has experienced significant transformations in recent years. An area whose origins lay in informal or illegal urban development has been radically transformed by the construction of public infrastructure. These new conditions have sparked a changed urban dynamic marked by the appearance of major real estate developments. The area includes part of the Patio Bonito district, a self-built working-class neighborhood stemming from the 1970s, and the newly developed neighborhood of El Tintal, founded in 2002. The district is part of the larger area known as Kennedy and is situated ten kilometers west of the city center near a zone of wetlands that are important regional ecosystem.

By the early twentieth century, the area—which today is Bogotá's most populous, with nearly one million inhabitants—was a rural area where residents were engaged mainly in agricultural activities. The process of urbanization began in 1938 with the construction of the city's first airport, which was soon followed by the appearance of self-built working-class neighborhoods. Due to the massive migration of rural inhabitants during this period, Colombian cities experienced rapid growth. An increased demand for housing among the poorest residents was satisfied by illegal land developers, who in Colombia are known as *urbanizadores piratas*, or pirate urbanizers. The resulting neighborhoods are not planned or properly designed for the provision of public services, and due to their illegal status, they only receive support from the state after a long legalization process. The formation of these kinds of settlements significantly shaped Bogotá's urban development in the second half of the twentieth century, and today they continue to represent the only housing options for many urban inhabitants.

During this same period, the state promoted the construction of low-income and middle-income housing



Plan showing the location of El Tintal Library.

projects in the zone. However, this housing was not available to the poorest social sectors, and so the process of self-building on land sold by illegal promoters continued, and the city continued to grow through a process of low-density urbanization around the periphery, including illegal occupation of high-risk areas such as those adjacent to marshes and to the Bogotá River. The Patio Bonito district is a prime example of this process.

Patio Bonito arose from the urbanization of a former *hacienda* in 1974. Because the land was two meters below the level of the Bogotá River it was not simple to legalize, and as a result residents had to struggle for years not only for legal recognition but also for basic services. During this process they were struck by numerous natural disasters. As in many peripheral areas along the river, flooding has been a serious problem. The first flood came just a few years after the arrival of the earliest settlers, forcing inhabitants to leave their homes and live in temporary shelters for several months. Recent administrations have tried to improve the area's drainage, but floods still represent a serious problem during the winter. Residents have also had to deal with security problems caused by the extension at



times of armed conflict from the countryside into the cities. Although security has improved substantially in Bogotá, including in the Tintal zone, the district continues to be affected by the presence of conflicting factions.

As described in the first part of this report, recent administrations have sought to build or upgrade infrastructure in peripheral and marginal areas as part of a strategy of social inclusion that aims to integrate the poorest districts. The most visible intervention was the construction of a major metropolitan public library and park on the site of a former city dump and garbage treatment plant. The transformation of a garbage treatment plant into a pleasant and accessible public library symbolizes the zone's radical transformation, and the project is greatly appreciated by residents: the library today is a landmark of the city as well as a meeting point for people of diverse social backgrounds. Other prominent projects include a new secondary school, built as part of a program initiated by Peñalosa and continued by both Mockus and Garzón. A line of the Transmilenio system now connects the formerly isolated neighborhood to the rest of the city. Communal dining halls bring improved nutrition as well as sociability. Bicycle paths provide opportunities for recreation and enhance the connections among adjoining neighborhoods. The many social programs of the Garzón administration have brought other

benefits to Patio Bonito residents that complement the more visible physical improvements.

As a consequence of these projects, the zone has undergone many important changes. What was formerly a poor and isolated area is today a dynamic zone connected to the development of the city. Patio Bonito residents now have access to high-quality public services that include parks and public spaces, schools, and transportation as well as social and cultural services. Beyond the provision of public services, a new urban dynamic marked by the emergence of residential and commercial real estate operations may be the most important consequence of the area's transformation. The appearance of new projects has implied essential changes in the socio-economic dynamic of the zone, and a radical change in the form of the area's urban development. The new neighborhood of El Tintal, unlike Patio Bonito, is a planned district that includes significant middle-income housing projects. Unfortunately, it follows the pattern of large, freestanding housing blocks that have already proved to connect poorly with surrounding urban spaces and to reinforce isolation and social segregation.

Putting aside the inconveniences caused by the particular housing form chosen, the emergence of this new urban dynamic can help demarginalize poor and peripheral areas like Patio Bonito by supporting the

Left
Transmilenio system
and renovated public
spaces in the vicinity of
El Tintal Library.

Right
Ongoing urban transforma-
tions in the Tintal zone.



availability of high-quality public services. Thus they may bring greater benefits to poor residents than do renovation projects in the city center. Of course, the possibility of displacement, with all of its negative consequences, is as real in the periphery as in the center, but demarginalization projects are less exposed to the particular interests that drive the renovation of urban centers, in particular the profit motives that drive the gentrification process. Although an important component of urban transformation in Patio Bonito was the emergence of real estate operations, their negative consequences for the community have been limited. Some years after the interventions, one can say that the development projects in the Tintal zone have helped to consolidate the urban development of a sector whose residents, thirty years ago, were still fighting for the right to basic services.

Citizens' Comments

It's changed 100 percent, because as I said, this was the garbage dump, all of this. They washed cars here, all the city garbage trucks [run by Limpieza Metropolitana, or LIME] arrived here because the headquarters were here, and over there near the roundabout was the radio transmitter for Mariana [the radio station of the archdiocese of Bogotá]. Imagine what the change has been: now the Mariana site is full of apartments. And when the station was here, it was all a big cow pasture. When it rained, you had to put on boots to get across. It was all just pure mud where the Avenida Cali is now.... So this is what I'm saying, that there have been changes, a lot of changes.... It used to be ranches where cattle arrived from China. They would bring seventy heads of cattle, horses, and they would arrive here. Now where would they put them, with all of this being apartments?... Now the wetlands are gone, just this piece of wetland left, because they made landfills. All of that was just wetland where the apartments are. And they filled that. Over

*there where the school is it was a cow pasture.
 Look at the change! (32a and b)*

To understand these changes better, we conducted thirteen interviews with nineteen people on April 2 and 6, 2009. Most were micro-interviews, but a resident of Patio Bonito—a service employee who had worked for forty years, was the mother of a teenager, and had lived in the neighborhood since its foundation—led two long commented walks, one through her neighborhood and the other from Patio Bonito to the library. Five people were interviewed inside the library, eight on its front esplanade, one in the park, one in Patio Bonito, and four near the new secondary school. The sample included four people interviewed at work: a peddler and a member of a roadwork crew in front of the library, a security guard for a residential complex near the new secondary school, and a student tutoring at the library.

This was the entrance for the garbage trucks. They came in and unloaded over there. They treated it [garbage] inside. The park was a cow pasture.... Sure, all of this has changed a lot, I'd venture to say 100 percent. Everything. Because it was terrible to walk here. You didn't dare to come here, first because there was no right to enter, it was cow pastures. But for example today it's lovely how you can walk from here to the bicycle path. Everything, everything has changed. For me the quality of life has changed totally. With its problems and all, but... (40)

Those surveyed who knew the Tintal area before its transformation remember it as "unpleasant" and "desolate," a place where "there was nothing," where no one dared to come.

This space was very desolate.... None of this existed. The apartments over there didn't exist. Everything looked desolate.... (35)



Yet some important entities that composed the former area of El Tintal were more precisely described: the cow pastures, the radio transmitter, a place where soldiers came to play football. Before its renovation as a library, the waste-treatment plant was an especially prominent presence in the area: though enclosed by walls, its activity was made visible by the ballet of garbage trucks that also determined traffic patterns in the area.

All this was fenced in. All around there was a wall. This here is where all the LIME trucks came in. Look over there, you see the bridge. They'd dump the garbage from the bridge.... This area from here to there was the perimeter road. And this was all closed, as I've said, there was a wall. (32a)

The memory of the garbage trucks seems to have given symbolic force to a major element of the rehabilitation project, the conservation of the plant's access ramp. But this symbolic power is more widely reflected in expressions of contrast between the new city and its rural and marginalized past.

The whole neighborhood of El Tintal is a sanitary landfill, Tintal is built on a sanitary landfill; all the garbage, everything that wasn't of any use, it all went back there.... [Then] they just put on a layer of grass to cover it, but I've noticed that when they dig a hole to plant trees, you can see the sanitary landfill. (36b)

Cali Avenue was a roadway where the buses used to go; it was a dirt road. (32a)

Interviewees linked the transformation to the creation of the park and library but also to the provision of infrastructure, including the Transmilenio, roads, and bicycle paths, which create a stark contrast with the impassable conditions of the past. Like many residents, Pedro Juan Jaramillo, the architect of the new

secondary school, commented in an interview on the transformation of which the school was part: "But as I said, there were no public services, no public institutions here. At the beginning, there were a lot of community conflicts due to the different backgrounds of the new inhabitants coming to live close together. The poor Patio Bonito population in particular would not mingle with the other communities." Jaramillo explains further that the goal of the new school was to "enable the children of these different backgrounds to meet and mingle. It was part of an urban strategy to build it here. The only place where people can actually understand being part of a community is a place where children are, and also a place where one can study, grow and learn. This is very simple. That's the way schools are now being designed in Bogotá."

For residents, the "development" and "modernization" of the area are also typically associated with the construction of new housing. In this sense, the salvaged wasteland of El Tintal, converted to new residential construction, has become an attraction to new residents. The radical transformation of the area is thus attributed to the new urbanization in a broad sense. A peddler living in Patio Bonito summed it up: "We somehow entered civilization."

While the physical transformations are impressive, the fight for urban services has also left an imprint on interviewees' minds.

Typical problems we fought over; we fought a lot to get the garbage collected on the specified days. Sometimes they would only come once a week to collect the trash. Now they collect it every three days at a specific time. [So we fought over] water service, the paving, all of that. But as time has gone on it's gotten better. Especially with the police. (40)





Above and Right
New secondary school





Security in the neighborhood is generally perceived to have improved, and the issue provokes fewer complaints than on Jiménez Avenue or in Tercer Milenio Park. What problems there are do not concern the immediate environs of the library so much as the more distant surrounding areas. Thus the security guard at a gated community located across from the new secondary school deplored the problem of robberies in the area's apartment complexes, while a resident of Patio Bonito, though agreeing that the situation had improved following the provision of a local police station, also confirmed the existence of theft and drug problems as well as threats against marginalized populations similar to those reported around Tercer Milenio Park.

What worries Patio Bonito right now is...those pamphlets they're sending around to the houses [threatening prostitutes and others]. Terrible!... Because what happens is that Patio Bonito is dominated by three gangs. If you know the neighborhood and they know you, you can walk after ten at night. But there are people who can't go out in the street after nine. Like the schoolkids with problems, the ones they know are addicts.... Because those are the ones who...[are the targets of organized violence]. (40)

Whereas the interviewees we encountered on Jiménez Avenue or in Tercer Milenio Park typically described the uses of the public space itself, the interviews here mainly focused on daily life within the nearby neighborhoods. In this sense, El Tintal appears to be, at least for the moment, less a clearly identified district in its own right than a place of convergence among districts. This in part may reflect the diversity

of relationships in the area evidenced by our admittedly small sample. Yet even so, we believe we can discern a pattern, that those who grew up in Patio Bonito express a stronger awareness of neighborhood life than those who did not. They manifest an attachment to Patio Bonito, which they designate as their district, through memories, experiences, and habits. And they see El Tintal as an extension, whether spatial, historical, or in terms of their personal or family trajectory.

My neighborhood [Patio Bonito], well, it was great, that's where I lived and where I grew up most of my life, and it's good to see those places that are linked to you. Like the pizzeria I always go to, or the man who sells chickens, or the lady in the bakery that's been there more than twenty years. Because these moments give you new life. It's good to be in my neighborhood. (35)

One interviewee, a longtime resident who walked us through the neighborhood, pointed out a myriad of places of many different kinds, whose functions and histories she was familiar with: markets of all kinds (including those that specialized in smuggled goods), neighborhood bars, schools, local parks, an Internet café, communal dining rooms, a street informally known by the name of a long-vanished empanada shop, and so forth. Clearly, Patio Bonito has achieved a considerable degree of social organization and continuity. Many of this interviewee's comments focused on ongoing concerns of security (the presence of gangs and former paramilitary members, delinquency) and public services (continuing deficiencies in street paving). But others pointed to the neighborhood's progress on many fronts, including some that would not be obvious to outsiders.



Following Pages

Neighborhood institutions in Patio Bonito: a church and a communal dining room (top). Formal housing and athletic facilities in El Tintal neighborhood (bottom)





That church exemplifies Patio Bonito. Initially it started in a very tiny space. As the neighborhood grew, the church grew too. It didn't used to look like this. It was made of wood, it was quite ugly. (40)

Not all changes were positive: a number of local bars that had once been pleasant, family-oriented places had become focal points for delinquency and crime.

When asked whether there was much communication between Patio Bonito and the Tintal neighborhood, this same interviewee answered:

Well, sure.... For example, there are families from Patio who buy ... well, it might be that the children got married and went to buy there. So then, the parents go from here to there, and the children come here. (40)

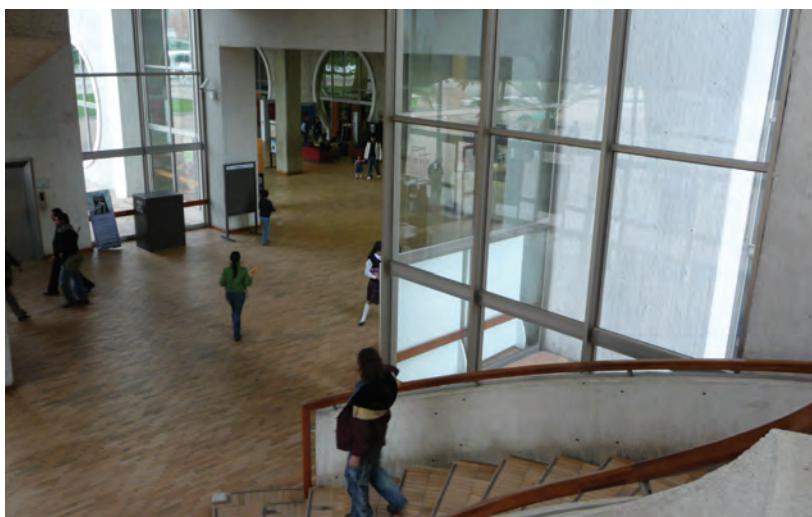
The bicycle routes provide one element that helps to create explicit connections between the two districts. But the park and library do so too. Of three interviewees who said they came to the park regularly, either in connection with other daily activities or to escape from such activities, all correlated visits to the park with the library. When asked her opinion of the park and library, one woman replied:

It's perfect. I come here in the mornings with my husband to walk. We wanted to remain active as we got older. Instead of sleeping, we come here. They organize expeditions from here, too. They take us to the museums. Sometimes they take us to the museums, libraries, especially in August—to the art museums, the national museum, to get to know all of that. Things we couldn't do, things we couldn't do when we were young because we were working. (30a and b)

Another interviewee, who came to the library "every day, to read, read, read," was just as enthusiastic about the park:

It's a very welcoming place. I have a lot of memories in this place. I come here because it's a very good place, where you can think, you can unburden yourself of your feelings, free yourself, maybe even try a little "gnosis." I have good memories of this place. I come here whenever I feel "down" because the place brings me a lot of memories. And it's a very good space, you see a lot of people.... (35)

Some interviewees came to the park only occasionally, or for a specific purpose. For example, one who came midweek, or roughly every fourth day, was part of an informal group of friends who came to the park to feed the stray dogs, for whom they felt sorry.



Another interviewee liked taking long and vigorous walks but saw the park more as a place for relaxing and so came only in December (summer).

Of course, on Sundays it's full of people. People come here to play in the park. They're always here in the good weather. The kids come by playing with the dogs.... (32a)

As already noted, memories of old pastures and wetlands remain strongly attached to the park's imagery. Though the change is generally seen in strongly positive terms, two interviewees, part of a university-based youth group dedicated to ecological awareness and protection of Bogotá's wetlands, saw the issue from a different perspective. One remarked that the changes were "productive on the one hand but sad on the other, because all of the wetlands are disappearing, and that shouldn't happen. One needs to have wetlands."

Only a few interviewees, mostly young people, used the library regularly, both to read and borrow but also to surf the Web. Two retired people came to take lessons as part of a wider town activity program in which they participate.

We come here for two hours on Thursdays, from 2:00 to 4:00. The first hour is like a Spanish course. During the second, a young lady comes and teaches us singing. We feel very grateful because the young people are very patient with us.... We go to a group called "Simeon" on Mondays, Wednesdays, and Fridays. We have a classroom routine there, ... because I was a teacher, so we recite, sing, play games. On Wednesdays a teacher comes. Last Sunday we danced. (30a)

Regardless of their specific activities, all interviewees appreciated the library as a pleasant and useful place, and certainly as one that did more than provide books. Interviewees emphasized the diversity of spaces and services, noting the large attendance of children who have specific rooms and supervised activities, such as computer training, multimedia, free Internet, games, and assistance with information searches. Many interviewees mentioned doing homework as one of the most common activities that take place in the library, underscoring the importance of libraries, in addition to schools, in providing access to culture and social life for families of modest backgrounds.

The library was a very good thing. Because there's Internet here, photocopiers—lots of things. You can come and take whatever book you want, and whatever you want to research, you'll find it here. (32a)

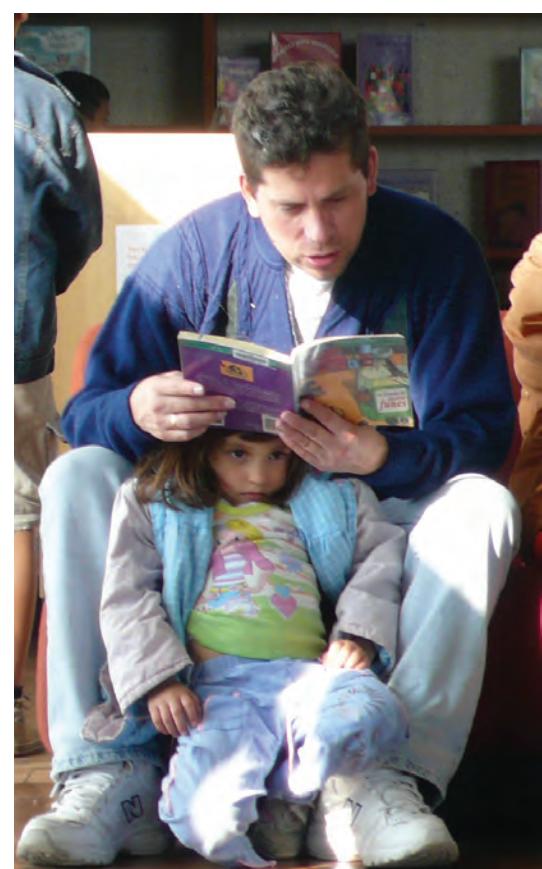


From the point of view of social practice, spaces like these seem to be very useful. In my case, for example, I give computer classes for children, who would have difficulty getting access to a computer if not for this library. Of the twenty children enrolled in the class, generally only one might have a computer, so that's a point in favor of the library. Apart from all the resources of books and computers, this library serves three areas, Fontibon, Kennedy, and Bosa.... one does notice that the children are coming here. I don't know whether it's because they want to or because the parents don't have anywhere else to leave them so they bring them to the library. If they're little children they have lots of things to do: they have those courses here, they have reading sessions in the children's room, there's a game room, there are regular exhibits in all the branch libraries of the city.

I don't know why they shut it [the waste-treatment plant] and decided to rehabilitate it. They left the old structure and added some nice new things and made the library.... [T]hey created this park around it, and that really did change the area completely, because before there was nothing, no housing projects, there was nothing. I think it came out very nicely, considering the fact they didn't start from zero, I think it came out really well, and I think it won an architectural prize. (33)



Scenes in El Tintal Library



Conclusions and Openings

Two general points about these sites emerge from our study. The first is the important role played by the perception of transformation in the sites: in describing current conditions, interviewees frequently referred to the site before its development, either invoking personal memories or planning policies. The second is the importance of social markers in describing public spaces: interviewees regularly pointed to uses dominated by particular social groups, categorizing and differentiating places accordingly. In this context, one may also note a recurrent tendency to situate public spaces in broader social contexts, whether general or personal. This second point is consistent with our own observations, both of certain types of users or activities (street vendors, indigent or displaced people) and of strong signals of monitoring (police, security guards, watchmen, cameras) that mark these spaces.

Spatial Characteristics of the Three Study Sites

On another level, this study highlights three strong characteristics that all of the study sites share, regardless of their significant difference.

A Metropolitan Dimension, Both in Use and Atmosphere

What gives these public spaces a metropolitan dimension?

First, although spatially discrete, each results from a public policy that has been applied to multiple locations within the city. Thus local action takes place within a larger metropolitan discourse.

Second, each is a large-scale project that is legible due to its well-defined perimeters. As such, each seems to belong more to the metropolis as a whole than to the immediate neighborhood, in which it is not so much integrated as installed.

Third, in each space the combination of an open configuration and a degree of separation from the densely built surrounding zones gives rise to rare metropolitan

perceptions. Tercer Milenio Park has a magnificent 360-degree view of Bogotá: apart from a skyscraper roof or the tops of the eastern mountains, this is one of the rare sites where one can see a large part of the city. From a sonic perspective, the situation is equally metropolitan: we hear a 360-degree soundscape coming from the city in a continuous yet discrete and almost panoramic way. The library at El Tintal, placed within a park, is markedly detached from its surroundings: whatever our angle of approach, it is perceived from a distance, and by the same token, all directions are possible as we leave it. Finally, Jiménez





Avenue stand outs clearly against the background of streets and neighborhoods that surround it. Though it crosses the city for several kilometers, it is sufficient to take any transverse or parallel street to realize how distinctive it is. In this context, one should also include the Transmilenio, which offers a unique experience of crossing the entire city and providing a series of superb urban scenes. The sheer length of the trip contributes to this metropolitan dimension, as do the stations, placed in central and isolated locations in the middle of wide avenues and in some cases extending for more than 1,000 feet in length.

Fourth and finally, while representing everyday places frequented by surrounding residents, each site (as the interviewees themselves pointed out) expresses a metropolitan dimension through its heightened attractiveness. In part, this is related to the Transmilenio service. In addition, Tercer Milenio Park appears as a new recreational public space in the city center. El Tintal Library, as well, is considered a place of convergence where Patio Bonito and newer neighborhoods begin to come together. Each site establishes an urban integration that is both spatial and social, covering territories that previously had been marginal. Thus, Tercer Milenio Park has constituted a means of eradicating (or at least displacing) the previous zone of extreme poverty and criminality. Jiménez Avenue also has eroded pockets of social marginality that had developed in its vicinity.

Hospitable to Individual Bodies and Groups of People

If one were to eliminate the people, these spaces would appear relatively barren. Largely lacking plants, buildings, or elaborate street furniture, their design is based mainly on their ground surfaces, with care having been given to the choice and installation of finishing materials. They also provide a wide range of seating options, including benches, curbs, and level changes, thereby offering many opportunities for the human body to sit, walk, lie down, and so forth. This of course is something that William H. Whyte described long ago in his observations of New York (1980).

Additionally, these spaces work as reserve spaces, offering people the opportunity to cut themselves off momentarily from the metropolis, buffering the urban aggressions of noise, traffic pollution, and unwanted social interactions. Thus people frequent them to relax and recharge themselves. Even Jiménez Avenue contains sub-spaces of this calming nature.

They are also highly flexible spaces, in which both individuals and groups seem to find appropriate places, thereby creating many sub-spaces that function at particular times for different activities, including both collective and individual sports, Sunday picnics, or workday lunches. This flexibility of use extends at Tercer Milenio Park to accommodating the police and army for training, and even to accepting encampments of refugees.



Beyond accommodating distinct groups or activities, these are places where people encounter others. They are considered meeting places, both for planned activities and for more serendipitous encounters. Moreover, they are places where people are close to others and where the coexistence of different social groups and activities, albeit challenging at times, is possible. Again, this quality is characteristic of their metropolitan scale.

Continuously Reconfigured by the Public

As the sociologist Erving Goffman (1971) showed, the public nature of a space is not a mere question of physical accessibility. Far from being a predetermined quality, its public nature is defined as the "socially organized functions" (Quere and Brezger 1993) that take place there. Encountering unknown people along a path, starting a conversation, and standing in line are all actions that each of us carries out routinely and without thought, a fact that demonstrates our awareness of the implicit rules that organize and govern social life. Managing forms of co-presence and mutual observability among strangers, or in a broader sense adjusting one's behavior to fit daily urban situations, proves the existence of this "ephemeral order"

(Quéré and Brezger 1993), which governs public spaces through the activities and social interactions that take place there.

Although this is true to some extent of all public spaces, it is especially notable in our three case studies, whose ambiances—as the accompanying sound and video recordings demonstrate—are fundamentally characterized by the presence of the public. In this respect, Jiménez Avenue is particularly exemplary. As a central public space, its patterns of occupation reflect the great rhythms of the city. During the daytime when shops are open, the flows and the ephemeral masses formed by the public dominate: streams of passersby going up and down the avenue, crowds around street entertainers or hucksters, groups of pedestrians waiting to cross the intersection of the Carrera Décima, and families taking pictures at the Plaza San Victorino. These figures of crowds are more or less porous and in continuous motion, affecting even the physical form of the space and at certain times totally eradicating the perception of built form and space.

In general, this physical reconfiguration of space is directly linked to individual and collective activities

that take place in the streets, and in particular to the strong presence of street vendors. Substantial changes in this configuration can sometimes take place very fast. From this point of view, two types of phenomena are worth noting. First, gatherings of particular groups in anticipation of specific events, such as draftees, displaced persons, journalists, or people waiting for distributions of clothing, demonstrate the existence of border zones, sometimes vague, between the ordinary and the extraordinary, without necessarily creating a break in the course of public space. Second, street vendors themselves play an important role in creating this ambience. Often lightly equipped, perhaps with a small cart or a simple bag, our observations have shown that some of them move in the space following the events or the crowds, which intensify and vanish at a certain rhythm, thus contributing to the rapid mobility of the public and the fluid variability of the space. Some of these factors can be seen in the one-hour video, provided on the DVD accompanying this volume, which was taken between 5:00 and 6:00 in the evening at the intersection of Jiménez Avenue and the Carrera Décima.

At Jiménez Avenue, Tercer Milenio Park, or the Tintal Library, we are in the presence of metropolitan public spaces. But their public dimension is conferred not merely by the physical definition of their spaces but also through the shifting patterns of individuals and groups that are constantly reconfiguring them. Our sound and video recordings demonstrate the variety of these patterns and lead to a further observation. If we take these elements as our criteria for evaluation, then all three spaces are enjoying great success at the moment. Yet the continuation of this success is far from assured. One threat comes from the intensive gentrification process, which, if continued, will at some point prevent any real social mixing. On the other hand, any effort to reappropriate all of the space for a single type of activity, such as a permanent market, would hinder the continuous reconfiguration of spaces, times, and people that make these public places so successful. In short, managing these spaces so that they remain places for everyone, while accommodating multiple activities, calls for dealing carefully with a complex of practices at the same time.

Urban Narratives, Situated Controversies, and Transects

Beyond the characteristics of the spaces themselves, and what they tell us about the urban interventions that created them, our research has led to some broader observations about how urban narratives develop, how they both contribute to and are supported by the urban projects themselves, and how new methods of research can enrich our understanding of how to act on, and in, cities.



From Broad Urban Stories to Everyday Tales

In Bogotá, urban, cultural, social, and economic transformations have fostered the narrative of politicians and city professionals, especially during the mayoralties of Peñalosa and Mockus. A unifying story, drawn from a range of actions and projects that in some cases predated their terms, was built up to explain actions that did not necessarily represent a common aim or predetermined plan. Beginning with Mockus's second term in office, a broad consensus on public space policy, transportation infrastructure, competitiveness, and other issues arose among the different administrations as well as the media. This unifying narrative, of

rapid and efficient urban transformation, was in fact largely built “in the midst of action” and sometimes even afterward. Formally presented, accepted, and internationally celebrated at the Venice Biennale in 2007, it has served to give a global logic to the whole whose very explanatory power has helped to obscure the more complex and nuanced stories that have evolved. To say this is not to criticize either the projects or the larger initiatives behind them: on the contrary, we remain generally enthusiastic about the actions that have been carried out up to now. Yet we also want to bring out certain other lessons about urban project management that can be learned from these transformations. The real story is of actions taken where possible, when possible, and using available means, but above all, of actions supported by a real metropolitan story. Each local action, then, is part of a global story that includes social, cultural, educational, functional, and environmental issues. We are very far here from the kind of large urban projects that, seeking to establish an ideal spatial organization, are incapable of prompting narratives independent of the master plan itself. The real projects of Bogotá are multidisciplinary, and they cover all urban scales, from the provision of food at a communal dining room at a particular address—or the many remarkable cases of libraries, parks, and schools throughout the city—to the global reordering of the metropolis through the Transmilenio.

What this research shows is that this story is now effectively shared by three types of people, and that this sharing has enhanced its power and efficiency. First, prominent city actors (both politicians and other professions) continue to focus on the cultural, social, and public values of urban transformations, even as decisions are partly driven by factors external to their objectives, such as commercial real estate development. Second, residents know and have made this story their own, as part of a shared culture of urban actions and projects. Remembering Bogotá before the interventions, their urban narratives largely corroborate the official discourse, especially that of the recuperation of public space for the public. Our interviews show that a large number of people have “recognized” and in a way “adopted” these urban transformations, without denying the existence of what we might call situated controversies: that is, emerging disagreements about appropriate activities, mobility, the onset of gentrification, and so forth. Third, planners around the world, as well as the international media, have taken up the story of rapid and spectacular transformation, usually (as we have noted) rather uncritically.

More than the transformations or policies themselves, it is this global urban story, perpetuating itself and becoming increasingly disconnected from

reality, that motivated our sense that a closer look was needed; that it was necessary to return to the narratives of ordinary people, to consult the daily and lived experiences of residents, and to carry out field observations at the sites themselves in order to anchor urban narratives in observed reality. Again, our goal is not to contradict the public story of Bogotá’s transformation but to show that the way toward genuine regeneration must take us through the social reality and the involvement of all concerned actors.

To this end, we are convinced, first, that it is important to produce descriptions based on lived experiences and field observations; and second, that these descriptions should take the form not of a continuous tale but of a mosaic of sensations, stories, performances, observations, and reflections that seek to capture the experienced reality of all the participants. Moreover, we consider the collection, creation, and sharing of these elements to be part of public life, and therefore also part of the new projects themselves. Capturing and being attentive to real situations and narrations, through walks, interviews, observations, pictures, sounds, videos, and so forth, do not in themselves constitute sociological expeditions, detached reportage, or even a research paradigm for understanding a global situation. These recordings of reality and its stories are meant rather to be the first concrete evidences of a complex, varied, and evolving urban situation. Our goal thereby is to enable the sharing of these stories for the purpose of transforming observed reality, or at least putting it into debate.

Situated Controversies

Our research suggests that Bogotá’s policy of recovering public spaces should be understood in relation to three distinct kinds of spatial recuperation:

- Spaces that are statutorily recovered: that is, spaces that are made truly public and accessible to all through the reduction of illegal privatization as well as obvious forms of permanent appropriation, such as street vending.
- Spaces that physically recover through “fitness” or “reshaping”: that is, through detailed physical interventions, including innovative renovation and daily care and maintenance.
- Spaces where people recover: places where people spend a moment to step back, take a break, and distance themselves from the sometimes exhausting city.

All three of our study sites are recovered spaces in the senses outlined above. But that does not mean



they are free of controversy. To describe the disagreements that surround them, we draw Bruno Latour's analysis (1991) of scientific controversies to propose the expression "situated controversies." For us, situated controversies point to dialogues taking place between local and global issues. But in contrast to scientific controversies, we think that urban controversies need to be located, and therefore incarnated, in order to be productive and not merely rhetorical. In addition, these situated, located, or incarnated controversies need to be reinserted into the overarching public narratives projected by politicians and the media, not in order to diminish the transformations that have been achieved but to update the urban story and restore its social richness as a basis for genuine discussion and constructive action.

Our observations provide insight into Bogotá's situated controversies and a context in which to understand them. We observe, for example, how the world of "before" resurfaces again and again. This is significant because, in giving rise to the new global narrative, the projects have also obliterated the very conditions of their implementation: the destruction of neighborhoods, displacement of populations, removal of markets and peddling permits, and so forth. In fact, the physical projects themselves did not eliminate poverty; it merely moved to the next neighborhood, the drug dealers have gone a little farther, and street vendors have invested elsewhere. Yet citizens remember. They know or wonder, for example, where the ghosts have gone (as some used to call the Cartucho inhabitants). If they are concerned about what people have become, they also show fear of their returning in uncomfortable numbers. Nor is it only former residents who continue to live in the consciousness of these public spaces: interviewees also recall the former garbage dump of

El Tintal and talk about the garbage that continues to resurface in the district around the library.

Here and elsewhere, renovation activity too often proceeds through removal or displacement of the former uses, and through imposition of a new social order that includes reinforced surveillance and more rigorously codified activities. People discuss these changes, but they do not necessarily criticize them deeply, because in general they appreciate the projects. Nevertheless, they worry about the neighborhood's evolution, talk about future projects that will not be meant for them, and express concerns about increasing gentrification and the danger of a more thoroughgoing elimination of social diversity.

These concerns point to a current tendency to reduce or control the sharing of public space, and they reveal a growing gap between the public story, which remains largely that of earlier mayoral administrations, and the stories of current residents as they perceive the evolution of the projects in question. Here again, we believe that the sharing of narrations, with the consequent reactivation of situated controversies, would help participants to know how to pursue these urban transformations today and for the benefit of all.

We remain convinced that living together in the city is possible only if there is a dialogue between different stories, a dialogue that does not negate controversies but instead admits them into the debate. We cannot continue indefinitely imposing a story built only from outside and increasingly unconnected to the reality of current residents. Instead, we need to breed a new collective reality by updating the story, drawing on residents' knowledge and experience of places, and sharing this information.

A shared story is one that builds on what exists and what everyone is willing to bear. We have found this forceful relationship in Bogotá. But there is no guarantee that it will continue to exist, automatically and forever. Rather, it is something that must be continuously built, or there is the risk that it will be lost. As Siegfried Kracauer suggested in a different context (1930), the sharing of stories, finally, is not about making Bogotá change but about letting everyone change Bogotá.

Urban Transects

We hope that our work has facilitated this kind of mutual creating and telling. To accomplish this, to blend stories and places into a unified understanding, we present not only our own text, accompanied by photographs and quotations from the interviews, but also our sound and video recordings taken in situ. The final component, not included here, is a form of multimedia presentation that we call a *transect*. It allows the connection of various types of data along different urban sections: spoken words, photographs, video sequences, soundscape extracts, and also analysis drawn from our literature study and interviews with experts. The transect is an imaginary line that defines a section through the city linking our case studies: public spaces, public transport, and cultural facilities.

At the regional scale the section has been a favored representation method used by geologists, geographers, and landscape designers. At the beginning of the twentieth century the Scottish urban planner Patrick Geddes underlined the "synoptic" potential of the section, its capacity to reveal the relations linking human lives to physical geographic frames. His use of the section aimed also to put together different disciplinary perspectives in one visual representation. Since then, there has been a link between the graphic and cultural conventions of the architectural section and those of the transect as used in human geography and the social sciences. The use of the famous "valley section" (conceived by Patrick Geddes fifty years earlier and inspired by the geographical studies of Alexander von Humboldt) by Team X opens new possibilities of hybridization of these two representation methods to serve the urban and architectural project. Yet until now this representation method has been underdeveloped. Rarely used at an urban scale, its potential as a tool of representation and design for the city and metropolis remains to be developed, particularly with regard to contemporary social and environmental issues.

The section offers many advantages. Rather than implying a predominant discipline or requiring exhaustive data, it selects everything that appears on its way and creates a meeting point between architectural, social, and sensory dimensions, between the



public and private spheres, between the built and the mobile. It allows a reading of historic strata. Its metonymic potential allows inscribing in filigree both narrations and perceptions of atmosphere or ambience in a static and graphic representation.

For geographers, the word "transect" refers to a tool that permits observation or representation of space through a section taken vertically in order to show a superposition, succession of spaces, or relationships among different phenomena. Thus a "transect" is not only a method of graphic representation but also a path through the space. Yet as opposed to the casual urban walker or "flaneur," the creator of a transect knows that he must make intrusions, transverses that cross the line of the transect. Thus the transect differs from a clinical section in that it involves the body of the viewer itself.

For us, the urban transect is an observation tool, located between the technical section and the sensory trajectory. Action as well as meeting place, the transect uses the technical representation of the section and trajectory in order to hybridize them; it is conceived in situ as well as through drawing. Adding atmospheric dimensions to architectural representation, and making possible the inclusion of narratives, the transect is a promising tool for representing both the sensory space that people inhabit and the daily practices they engage in there, for the purpose of analysis and conception. Above all, we believe the transect could provide the groundwork for urban narrations in which situated controversies can be expressed, updated, and discussed.

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(All recordings of interviews with residents are identified in the text by numbers following the quotations.)

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Dew architectures
Dew announces the good weather

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DEW ARCHITECTURES

"DEW ANNOUNCES THE GOOD WEATHER"

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ABSTRACT

Dew is a natural phenomenon that occurs under particular weather conditions (clear nocturnal sky, humid air, low wind) and on a surface specially designed for this purpose (high radiative cooling properties, special architectural design). Depending on the weather conditions and the surface characteristics, the water yield can give up to 0.7 litres per square meter and per night.

Although the collection of rain water on roof turns out to be relatively simple, dew harvesting needs a more sophisticated architectural design to be efficient. Then this project aims at testing roof designs that improve dew water recovery by modulating two major parameters related to its recovery: (i) surface quality (strong emissivity, wetting character, low heat capacity), (ii) the shape of the roof (slopes, orientations with respect to dominant wind, gravity-induced water flow, etc.).

A first step was the exploration of urban structures/sculptures, which was carried out by numerical works and small scale modelling (workshop held on December, 2008). In a second time (April, 2008), three roof prototypes on scale 1:1 of approximately 4 m² each are constructed and tested. These prototypes are designed with metals (sets of oriented plane surfaces), resins (modular plays of crooked surfaces) and textile (stretched structures).

These multi-disciplinary researches on dew water harvesting aims at a synergy between partners of different disciplines and statutes: physicists, architect-designers, industrialists and teachers. They can apply to all the scales of the habitat, from garden cabins to roofs of building, car parks or supermarkets. It finds its interest in many regions of the world, in arid or semi arid environment and also European countries. (It is worth noting that the surface coating used to improve dew collection also provides natural cooling during the day.). We propose on conclusion of this paper, a pavilion project with on of this system.

Keywords: water, dew condenser, radiative cooling, architecture, geometry

INTRODUCTION

Passive dew collection refers to the condensation of atmosphere vapour by radiative exchange cooling and without external energy. It is known to provide good quality water and can provide a useful supplementary source of drinking water. Although the maximum expected available yield is in the order of $0.8 \text{ Lm}^{-2}\text{night}^{-1}$, such an amount has yet to be reported. The highest dew collection amount we are aware of is just over $0.6 \text{ Lm}^{-2}\text{night}^{-1}$ for Jerusalem (S. Berkowicz, Hebrew University, personal communication July 2012). In contrast to meteorological conditions, which cannot be modified, the shape of the condenser can increase or lower the dew yield by a large factor. In order to increase the dew yield, we here propose and test new collector shapes different than the planar geometry used to date.

SIMULATION

Dew formation involves radiative cooling below the atmosphere dew point temperature. What matters is the difference between the condenser outgoing radiative power, P_r , and the sky incoming radiative power, P_s . The local radiative power, P , emitted by a source depends on the local temperature, T , through the Stephan-Boltzmann law,

$$P = \varepsilon\sigma(T + 273)^4, \quad (1)$$

where σ is the Stephan-Boltzmann constant and ε is the emissivity of the surface. When considering a complicated surface, such as the cone in fig. 1, the radiative power emitted by each surface element over a given sky solid angle element must be integrated over the total condenser structure and visible sky solid angle. This necessitates considering both the surface directional emissivity (that varies as the cosine of the angle with the normal to the surface element) and the sky directional emissivity $\varepsilon s, \theta$. Due to this specific θ dependence, the lowest atmospheric layer contained in the first 15° solid angle emits a significant amount (25%) of the total IR sky radiation. In [1] numerical simulations of substrates - horizontal, 30° inclined planar substrate, conical and ridge shapes - were performed and compared to experiments outdoors.

Numerical calculations were made for a condenser taken as a "grey" body with emissivity $\varepsilon_c = 0.94$ and a sky radiation corresponding to common night weather conditions in a temperate climate (e.g. Europe): clear sky, $T_a = 288 \text{ K}$ (15°C) ambient temperature and $\text{RH} = 85\%$ relative humidity, corresponding to the dew point temperature $T_d = 285.5 \text{ K}$ (12.5°C). The integrations of the radiative budget are computed for various radiator temperatures T_c . Among the collection surface forms already investigated (planes, ridge, cone [1]), the latter conical or funnel shapes gave the best results. Fig. 2 compares surface mean temperature with respect to wind speed for a conical geometry and a 1 m^2 condenser inclined 30° from horizontal, with wind blowing towards the hollow part of the condenser. As expected, cooling decreases when wind speed increases.

SHAPES

A good condenser design will reduce the heat exchange of the condenser surface with air flow (free convection, forced convection with wind). Hollow forms, such as the funnel shape, are preferred as they also reduce free convection along the surface by blocking the heavier cold air at the bottom. In addition, because of the cone symmetry with respect to the vertical axis, the effects are the same whatever the wind direction. Assuming a symmetric temperature distribution with respect to the vertical axis over the internal funnel surface, a portion of the surface is in radiative equilibrium with the remaining parts of the surface, such that the internal radiative budget is null. In addition, in masking the lower



Figure 1 Integration scheme for the funnel shape ($0 < \theta < \theta_L$, $0 < \phi < 360^\circ$ and $0 < r < R$). (b) Photo of the funnel-shaped condenser (7.3 m^2 surface area with 60° cone angle, 30° from horizontal). The internal surface of the experimental condenser is coated with OPUR (www.opur.fr) low density polyethylene film insulated from below with 3 cm styrofoam.

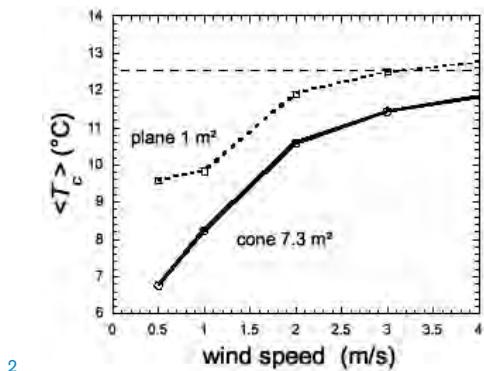


Figure 2 Averaged condenser surface temperatures $\langle T_c \rangle$ as obtained by numerical simulation with respect to wind speed at 10m elevation. No condensation occurs above the broken line $\langle T_c \rangle > T_d = 285.5 \text{ K}$ (12.5°C), corresponding to $T_a = 288 \text{ K}$ (15°C) and RH = 85%.

(and most IR emissive) atmospheric layer to most of the surface, the funnel shape lowers the intensity of downward long wave sky radiation and thus enhances the radiative cooling power. Cooling is thus expected to increase and condensation enhanced with respect to the inclined planar condenser.

When dealing with a cone, choosing a smaller cone angle (larger α) reduces convection heating but also reduces radiative cooling because the radiation solid angle of the sky is lower. The optimal cone angle was deduced from several simulations with different wind speeds and for different cone angles while keeping the cone radius constant at 1.5 m (i.e. the condenser area projected on the ground). The mean condenser surface temperature $\langle T_c \rangle$ was obtained by averaging the local surface temperature over the condenser area. From simulations at angles $\alpha = 25^\circ, 30^\circ, 35^\circ, 40^\circ$ and 50° , the $\alpha \approx 30^\circ$ angle (cone angle $\approx 60^\circ$) give the best cooling efficiency.

CHOICE OF DESIGN

Hollow shapes are preferred, as discussed above, with a particular interest for slopes around 30° . This hollow configuration (i) prevents the lower layers of the atmosphere to radiate inside the cone and thus improve cooling, (ii) lowers the influence of wind forced convection, whatever the wind direction, and (iii) confines cold air inside the cone by buoyancy. Incidentally, this angle is also the optimal angle for plane condensers [2].

In addition, this particular angle allows water to easily flow by gravity as the gravity forces are only reduced by 50% with respect to vertical.

Such conical shapes have already been tested [1,3], or similar shapes such as a square hollow pyramid with angle 30° from horizontal [4]. The yields are compared to the 1 m^2

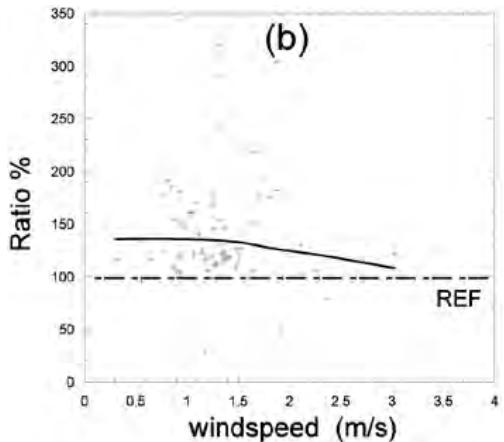


Figure 3 Dew gain R of a 7.3 m² cone with respect to a 1 m² plane as measured in Ajaccio, France, from May 25, 2005 to November 11, 2005 (107 dew events, see [1]; black curve: 100 % weighted fit of data).

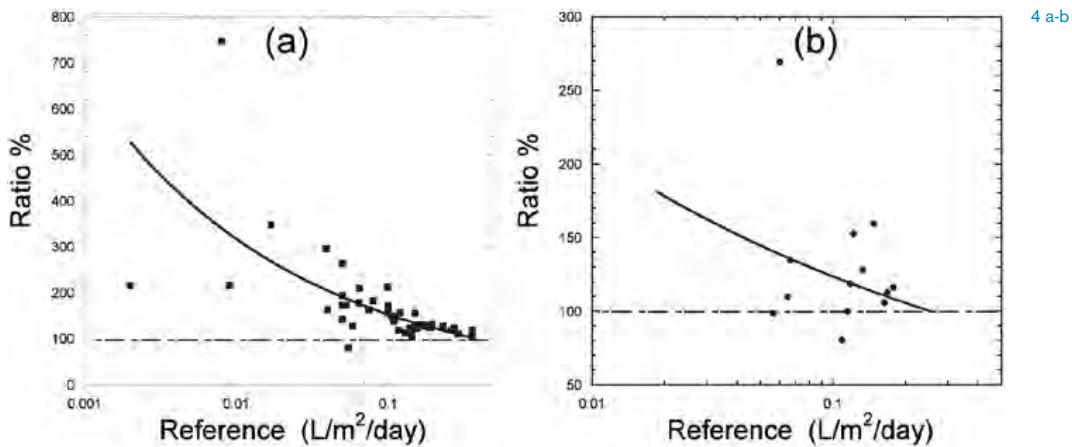


Figure 4 (a) Comparison of the mean daily collected dew amounts between the 1 m² planar and 7.3 m² conical collectors, from May 25, 2005 to Nov, 11 2005 in Ajaccio, France (semi-log plot; the line is an ad-hoc power law fit with exponent -0.3; adapted from Ref. [1]).
(b) Comparison of the mean daily collected dew amounts between the 1 m² planar and pyramid collectors, March 2004 to May 2005 in Wageningen (The Netherlands). (Semi-log plot; the line is an ad-hoc power law fit with exponent -0.23; adapted from Ref. [4]).

planar reference condenser inclined 30° from horizontal through the ratio R :

$$R = \frac{h_c}{h_o}$$

where $h_{c,0}$ is the volume of dew collected per day and per unit projected area of condenser surface. The subscripts (c) and (0) stands for the collector and planar reference, respectively. When compared with a reference planar condenser inclined 30° from horizontal, the yield is increased. In [1] the improvement is 22 % on average, ranging from 30% at windspeeds below 1.5 m/s to 0% above 3 m/s (fig. 3). The gain is larger for low dew yields, see Fig. 4a. The inverted pyramid with angles 30° from horizontal gives on average a 20% higher yield [4], with also a tendency to higher yields for low dew volumes (fig. 4b).

In this study, a pyramidal shape condenser (fig. 5) was assembled but it was not tested in the field because of the above studies. The interest of our design was the use of an industrial flexible texture. The thermal insulation was made according to the principle of a double-skin filled with rockwool.



5

Figure 5 Inverted pyramid with an angle 30° from horizontal and four condensation side. The section at the top is 1 m x 1 m.

6 a-b



Figure 6 (a) Egg-box shape (2 m x 2 m). (b) Origami shape (1.8m x 1.8m).

When considering the construction of large scale collectors, the conical shape is technically difficult to envisage and is costly. In its place, we considered hollow shapes that can be made repetitive to eventually pave a planar or weakly curved surface (roof). We also looked for the aesthetics of the ensemble and the cost of construction. From the many shapes that were studied, we retained only two: the egg-box (EB) and origami (OR) types (fig. 6). Two roofing units were erected, 4 m² projected on the ground (EB) and 3.24 m² (OR). For improved performance, the external surface was coated with a paint containing an additive that makes it hydrophilic and gives it a high infra-red emissivity. Each condenser was coated below with styrofoam thermal isolation. The prototypes were fabricated in 2008 at «Les Grands Ateliers» (Villefontaine - France) during the “Chaleurs urbaines” project (ENSA de Grenoble - Métro).

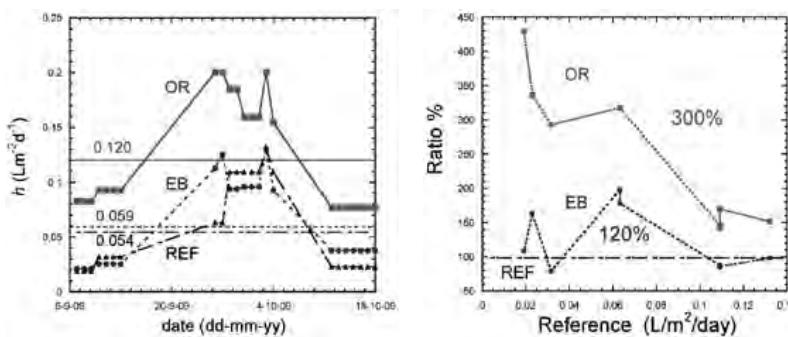
STUDY SITE

The study site is located south of the Bordeaux urban area, in the town of Pessac at Le Bourghail (44° 48'16" N, 0°41'34" W), approximately 17 m a.s.l. The dominant wind direction during the night (21:00 - 06:00) is SW (240°). The distance from the Atlantic Ocean is about 50 km. The dew condenser has been described in [2]. It consists of a plane foil covering a 1 m x 1 m surface area, thermally isolated from below with a 20 mm thick sheet of polystyrene foam. The foil composition is from [5,6], is 0.39 mm thick and made of 5.0 vol% of TiO₂ microspheres of 0.19 μm diameter, and 2.0 vol% of BaSO₄ of 0.8 μm



Figure 7 "Egg Box" (EB) and "Origami" (OR) type condensers with the planar reference condenser (R). (T is an additional planar condenser).

7



8 a-b

Figure 8 (a) Evolution of dew yields ($\text{Lm}^{-2}\text{day}^{-1}$) for the origami (OR, squares, full line), egg box (EB, short dashed line) and reference plane (REF, triangles, long dashed line) with mean values - horizontal lines. **(b)** Ratio R of the condenser to the reference plane with respect to dew yields (OR, squares, full line), (EB, dashed line). The thick lines are 100% weighting of the data.

diameter embedded in a matrix of low-density polyethylene (LDPE). It also contains approximately 1 vol % of a surfactant additive non-soluble in water. This material improves the mid-infrared emitting properties to provide radiative cooling at room temperature and efficiently reflects the visible (sun) light.

The planar condenser was set at an angle of 30° with respect to horizontal. A PVC gutter collects water into a polyethylene bottle. No scraping was performed and dew water was collected only by natural gravity flow.

The collectors are set above the ground and faced west. The EB collector was slightly inclined (about 10°) to collect water. For the OR structure, water was collected by a hole made in its centre.

An automatic meteorological station (Oregon Scientific, USA) continuously recorded the following parameters: air relative humidity, air and dew point temperature, wind direction, and windspeed.

MEASUREMENTS

The data were collected during 51 days, between 29/08/2009 to 18/10/2009; 23 dew events occurred (45 % of the period) and 2 days of fog (4% of the period). The yields were compared to the 1 m² planar reference condenser through the ratio R (see Eq. 2).

The evolution of dew yields hc_0 for the different structures are reported in fig. 8a.

The mean values (in $\text{Lm}^{-2}\text{day}^{-1}$) are $\langle h \rangle = 0.054$ for the planar reference, 0.059 for the EB and 0.12 for the OR, corresponding to R mean values $\langle R \rangle = 1.09$ and 2.22 for the EB and OR, respectively. This ratio should be dependent on wind speed (see above fig. 2,

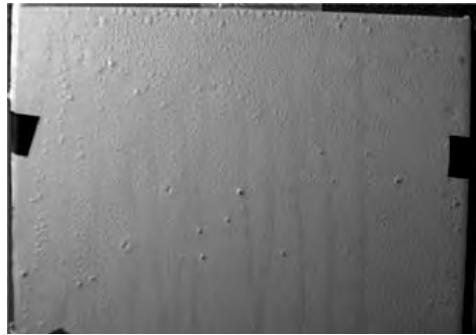


Figure 9 Edge effects on dew water collection. Drops are larger on the edge where they induce avalanches (rivulets) when sliding down. (Hydrophilic paint on a cooled vertical stainless steel foil. From Ref. [7]).

where a weak dependence is seen). However, other factors are important such as the efficiency of collection, which depends on the collected volume. This is why we report in fig. 8b the variation of R with respect to h_0 , the planar reference yield. There is a general tendency to increase dew yields for small yields, with a ratio that can reach about 400% for the OS and 150% for the EB.

DISCUSSION

It is clear that the OR structure is more effective than the planar reference and than the EB structure, especially for light dew episodes. The lower performance of the EB type when compared to the OR structure is due to the flat top of the EB structure from where dew cannot flow easily, thus reducing the efficiency. In addition, one should note that for our test of the modules, construction irregularities can have a considerable effect on the flow. Without reaching the output of the origamic structure, a better output of the egg-box is possible without joints. The EB structure, however, always remains more effective than a simple plane.

This study shows that the geometry of collectors can have a considerable influence on dew yield. Hollow structures increase cooling by preventing wind influence and are preferred over planar surfaces. However, the efficiency of water collection also matters. When the angle with vertical becomes too low, as on the top of the egg-box bumps, water cannot flow and the yield is reduced.

There is also a positive effect of the edges (fig. 9) for water collection. The dew drops on the edges are forced to coalesce on a line instead of a plane. This enhanced coalescence process speeds up droplet growth such as they detach sooner than the other drops on the substrate. When flowing down, the edge droplets coalesce with other drops, grow in an avalanche-like process and form rivulets. Flowing down is later enhanced where rivulets have formed, which increases the collection of further condensed dew water.

This accelerating mechanism is absent from collectors without sharp edges, like the EB.

CONCLUDING REMARKS

One of the difficulties of the plane surface to be used for dew collection is its employ as a roof. Classically, with houses having two sides roofing, water flow is difficult in the channels/gutters because their slope is generally not strong enough. One of the principles that has controlled the present research for new forms is then to propose a flexible system increasing the surface of collection (physical dimension), creating structures to be used as shelters (social dimension) while solving by different channels/gutters the problem of the flow for dew water recovery (constructive dimension).

Many forms can then be designed and tested for dew collection. However, they should

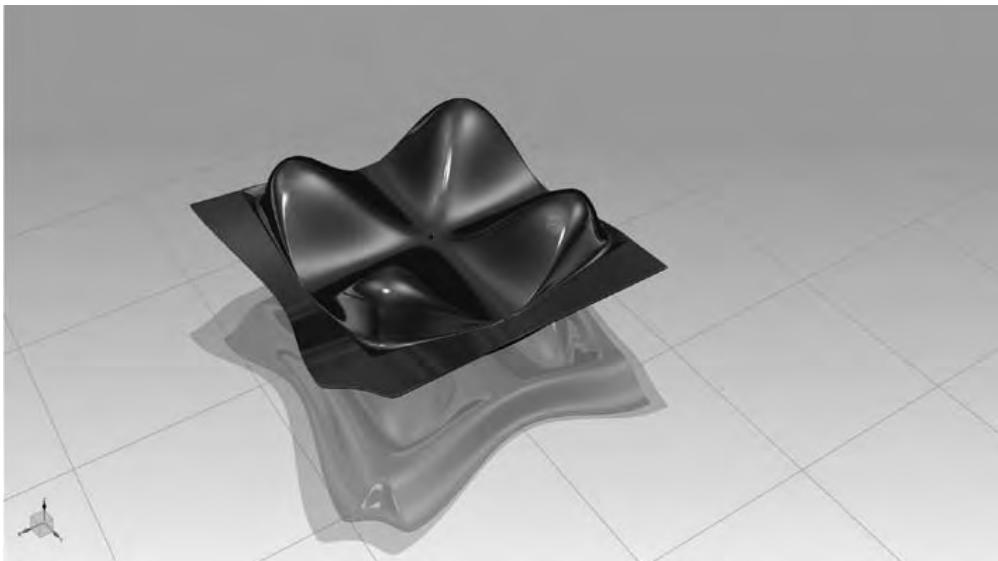


Figure 10 Three-dimensional modelling of the upper shell of the base module with edge and angle.

follow general rules in order to obtain good yields. Our goal in the suggested forms presented here is to increase the surface of collection without increasing the height of the module much. This characteristic associated with repetition and the assembly of the modules suggests that modular structure for dew collection can be used that can also serve as a roof to be used on homes, public use, industry, and other built structures.

OPENING: A PAVILION PROJECT

Since 2010, as a continuation of the initial experiments, the pavilion project is under development. The goal is to design and build a roof device that combines the principles of dew formation and that of a static self-supporting system.

By combining two double-curved surfaces - one on top and one at the bottom - with an «intermediate mass», we get a statically very interesting sandwich.

Both surfaces are materialized by the lamination of a carbon glass fibber fabric impregnated with matrix polyester. These two layers are connected by polyurethane foam, which guarantees the transfer of the static efforts and gives the necessary resistance to the sharp effects.

The current research aims at optimizing three parameters of the form:

- The geometry of the top layer, following the principles of dew formation: optimizing the average slope, minimizing the routes of water harvest...
- The geometry of the bottom layer guarantees an optimal static behavior: inertia, efforts on the junction areas...
- The thickness (variable) of the «intermediate mass», which is not only proportional to the inertia, but also ensures an adequate thermal insulation by increasing the temperature difference between the upper and lower layers of the device.

By the idealization of a system of assembly among the various units (cables of compression, joints of assembly...) one can provide a roof that can be easily assembled and very light.

It can be modulated in its plan dimensions and can thus be placed on pillars, gates, etc.

The aerodynamic behavior of the device has also been studied. The elements of the edge should be able to deflect the airflow so as to minimize the effects of depression on the

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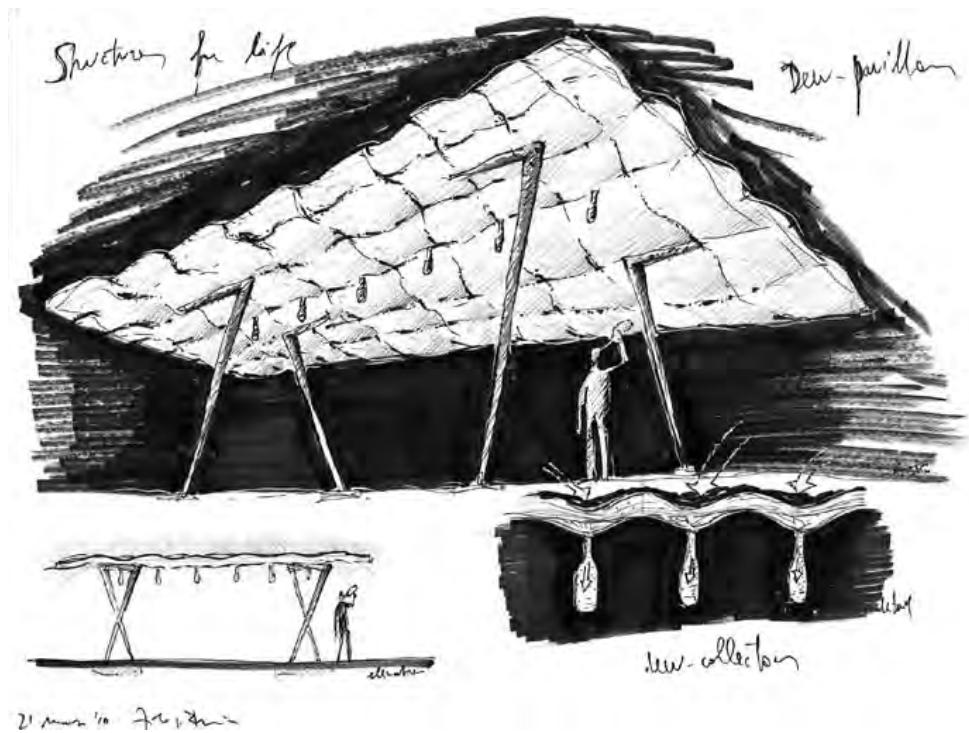


Figure 11 Preliminary sketch of the assemblage of the device

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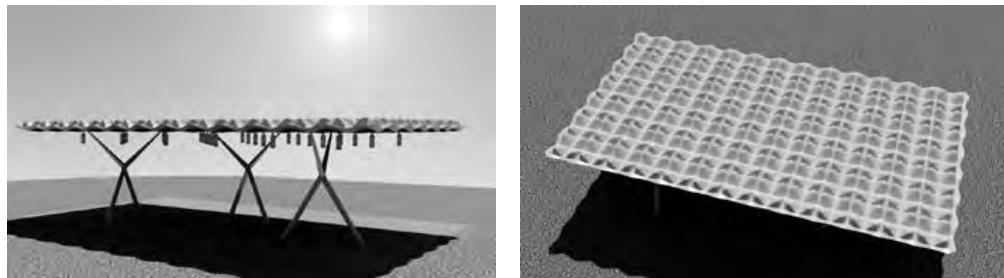


Figure 12 Perspective views of the pavilion: the roof and the pillars/roof in bird's eye view

roof. The positioning of a possible system of facade should also be taken account from the aerodynamic point of view.

The construction of a pavilion prototype will allow us to clearly define all the phases of production, construction, transport and assembly, just as its prices of production.

At the same time, the real effectiveness of the device in arid medium will be checked. Once these data are collected, the commercial phase for the distribution of the "product-house" could start on a broader scale.

ACKNOWLEDGMENTS

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**Mémoire du futur, from old roots to new shoots.
Patrick Geddes in India (1914-1924)**

(2016)

Adrián Torres Astaburuaga, Éva Chaudier, Nicolas Tixier, **Mémoire du futur, from old roots to new shoots. Patrick Geddes in India (1914-1924)**, in *Espaces et sociétés*, Dossier « Revisiter Patrick Geddes », n°167, 2016.

Mémoire du futur, *from old roots to new shoots.* **Patrick Geddes in India (1914-1924)**

Adrián Torres Astaburuaga
Éva Chaudier
Nicolas Tixier

GEDDES IN INDIA

Botaniste et biologiste écossais, Patrick Geddes développe une pensée et une pratique du projet urbain qui participe d'un mouvement que l'on pourrait rétrospectivement qualifier de proto-écologiste, en posant que l'écologie n'est pas seulement une question environnementale, mais bien aussi une question

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sociale et économique¹. Ses méthodes interdisciplinaires placent l'homme en relation avec un large écosystème à considérer, dont le contexte urbain fait pleinement partie. Sa pensée, relativement oubliée par le récit des modernes, appréhende le développement urbain à partir des sciences naturelles et des sciences sociales, en dépassant leur distinction et en affichant une position très critique envers ce qui relève, selon lui, d'un ordre paléotechnique, à savoir une croissance urbaine incontrôlée ou encore l'industrialisation sauvage sans ménagement aucun envers l'environnement ou ceux qu'elle emploie, et qui de plus est à la base de l'épuisement de ressources telles que le charbon. Il critique un système socio-économique où la dissipation de l'énergie sert uniquement le profit de quelques-uns. Il annonce alors le passage de cet ordre paléotechnique à un ordre néotechnique prônant la conservation de l'énergie et l'organisation d'un environnement orientées vers une évolution sociétale possible tant pour la collectivité que pour l'individu. Dans ses études, Geddes fait un lien direct entre la qualité de l'ambiance urbaine et le progrès social. La compréhension et l'articulation des différents paramètres qui font la société urbaine lui permettent de pointer en particulier la période entre la fin du XIX^e siècle et le début du XX^e siècle durant laquelle l'industrialisation altère gravement les conditions de vie.

Aujourd'hui, l'écologie a quitté les secteurs alternatifs et minoritaires pour se retrouver au cœur des discours des institutions publiques autant que privées, mais aussi des urbanistes, au risque, nous le savons tous, de la superficialité voire du marketing. Les idées, les études et les pratiques urbaines de Geddes, développées il y a maintenant cent ans, nous semblent tout à fait pertinentes pour comprendre l'origine de ce proto-écologisme ou de la planification organique (Oyón, 2011).

À la différence des urbanistes actuels qui développent une posture écologique, Geddes n'avait pas une notion claire de l'épuisement des ressources

1. Cet article s'appuie sur trois travaux de recherche menés conjointement :

Adrián Torres Astaburuaga, *Valencia, ville en mutation : mémoire naturelle, stratigraphie urbaine, réactivation par l'usage*, doctorat ETSAB-UPC (École supérieure d'architecture de Barcelone), José Luis Oyón, Manuel Guardia, Nicolas Tixier (sous la dir. de), 2013-2017 et un DSRA à l'École supérieure d'art de l'agglomération d'Annecy – programme ECHOS en collaboration avec le MAMCO, 2014-2016.

Naïm Aït-Sidhoum (sous la dir. de), Nicolas Tixier, Adrián Torres *et al.*, *Bangalore : pour l'invention d'un tiers patrimoine*, programme de recherche MCC « Pratiques interculturelles dans les processus de patrimonialisation », École supérieure d'art de l'agglomération d'Annecy (sous la dir. de), Srishti Institute of Art de Bangalore, Cresson – UMR AAU – ENSA Grenoble, 2014-2016. Éva Chaudier, *From Old Roots to New Shoots, entre patrimoine et projet, relecture contemporaine de Patrick Geddes*, master recherche en design urbain, Nicolas Tixier (sous la dir. de), Institut d'urbanisme de Grenoble / Cresson – UMR AAU – ENSA Grenoble, 2015.

naturelles ni même des conflits pouvant en découler. La crise du pétrole, le changement climatique, la biodiversité menacée n'étaient pas d'actualité à l'époque. Formé à la biologie puis à la géographie environnementaliste, Geddes avait une vision fondée sur une forte sensibilité envers la nature. Ses ouvrages montrent, souvent de façon implicite, les limites à ne pas dépasser concernant, par exemple, la contamination des aquifères et des rivières, la quantité des effluents industriels et leurs conséquences sur la santé publique.

Patrick Geddes, comme ses référents les plus proches, à savoir les romantiques révolutionnaires tels que John Ruskin, Thomas Carlyle, William Morris, ou les géographes anarchistes tels que Pierre Kropotkin et Élisée Reclus, avaient la conviction de l'union ou d'une continuité entre l'homme et la nature. Son approche n'était pas pour autant protectionniste ; il avait plutôt la volonté de prendre pleinement en compte le lien entre l'homme et la nature dans son étude des villes et de leurs territoires.

Mais Patrick Geddes, à la différence d'auteurs comme Henry David Thoreau, qui était plutôt un détracteur du milieu urbain et de la civilisation de son époque, a orienté son travail vers une renaturalisation de la cité et de la culture. En cela, Geddes a fortement influencé l'urbaniste et théoricien américain Lewis Mumford, qui a écrit l'introduction de *Patrick Geddes in India*, un ouvrage à la base du travail d'action et de recherche décrit dans cet article.

En novembre 1914, Patrick Geddes est appelé en Inde pour réaliser différents *reports* en tant que *planning consultant*. Invité par Lord Pentland, gouverneur de la région indienne de Mantras et ancien ami, il part vers l'Inde avec son fils Alasdair Geddes, emportant l'exposition « Cities Exhibition », qui représente pour lui des années de recherches et de collectes. Un bateau allemand coule le *Clan Grant*, navire sur lequel se trouve toute la documentation de l'exposition, la perdant en totalité. Geddes ira et retournera en Inde pour y rester finalement durant la guerre, jusqu'en 1924. Mais cette guerre tuera son fils Alasdair, recruté par l'armée britannique, mort sur le front français, précédant de peu son épouse, décédée en 1917 d'une maladie tropicale transmise par un moustique pendant leur séjour en Inde. Ces terribles événements sont très significatifs pour comprendre l'état d'esprit de Patrick Geddes lorsqu'il développe ses travaux en Inde.

En Inde coloniale, Geddes réalise entre 1914 et 1924 des études que l'on pourrait qualifier aujourd'hui de « diagnostics prospectifs » sur plusieurs villes et villages du pays comme Indore, Balrampur, Madurai, Calcutta, etc. Ses exposés, ses préconisations et sa méthode furent à cette époque en avance sur son temps et peu compris. La volonté de modernisation et d'une certaine manière d'occidentalisation que les gouverneurs de l'Inde anglaise avaient se trouvait en opposition avec les analyses et les propositions qu'il faisait. Peu mis en avant pendant de longues années, ces travaux sont revisités aujourd'hui par de nombreux champs disciplinaires (urbanisme, géographie, paysage,

éducation, etc.). En effet, les points de vue de Geddes sont à la base de positionnements écologistes et postcoloniaux contemporains, en plaçant l'homme, avec ses savoir-faire, sa culture locale, sa recherche du bien-être, dans un contexte écosystémique qui se retrouve au cœur de sa logique de planification urbaine.

Les études indiennes réalisées sur une cinquantaine de villes ou villages se composent d'un nombre de volumes d'ampleur variable selon le cas. Le *report* de la ville d'Indore reste le plus développé (Geddes, 1918) – et c'est sur celui-ci que nous nous sommes le plus appuyés. Une sélection d'études et de propositions urbaines menées à terme entre les années 1915 et 1919 ont été éditées en 1947 par Jacqueline Tyrwhitt, en collaboration avec Henry Vaughan Lanchester, Arthur Geddes, le fils de Patrick Geddes, ainsi qu'Anthony Denney pour le travail photographique. L'ouvrage, intitulé *Patrick Geddes in India*, est composé d'une sélection raisonnée parmi les différents *reports* indiens réalisés (Tyrwhitt, 1947). Très peu connu dans les pays non-anglophones, il n'a été ni réédité ni traduit (figure 1²). À notre connaissance, un seul ouvrage important porte sur les travaux de Geddes en Inde. Il s'agit d'une monographie remarquable publiée en italien par Giovanni Ferraro en 1998 (Ferraro, 1998).

L'approche de la ville, le processus méthodologique que Patrick Geddes met en place en articulant relevés, diagnostics et propositions – souvent au sein d'un même mouvement –, sont aujourd'hui d'une actualité et sans doute d'une validité étonnantes. Dans sa préface de *Patrick Geddes in India*, Lewis Mumford met en évidence la grande portée, selon lui, des propositions faites par Geddes, le présentant comme une figure importante de par ses postures, sa méthodologie, ses éléments de théorie, mais aussi la façon dont il esquisse le projet. Mumford remarque parmi les premiers l'intérêt du *survey before planning* :

« Today no competent planner would think of putting forward a comprehensive scheme for city improvement without a preliminary survey of the geology, the geography, the climate, the economic life, and the social institutions of the city and its region. But this commonplace of technique is the direct result of Geddes's advocacy of the civic survey as indispensable to planning : “Diagnosis before treatment.” » (Mumford dans Tyrwhitt, 1947, p. 8)

Cette méthode, mise en pratique en Inde, développe les éléments d'analyse urbaine et de projet élaborés et énoncés pour d'autres lieux, en particulier la ville et la région d'Édimbourg. Elle se compose de deux moments : le *survey before planning* et le *conservative surgery*.

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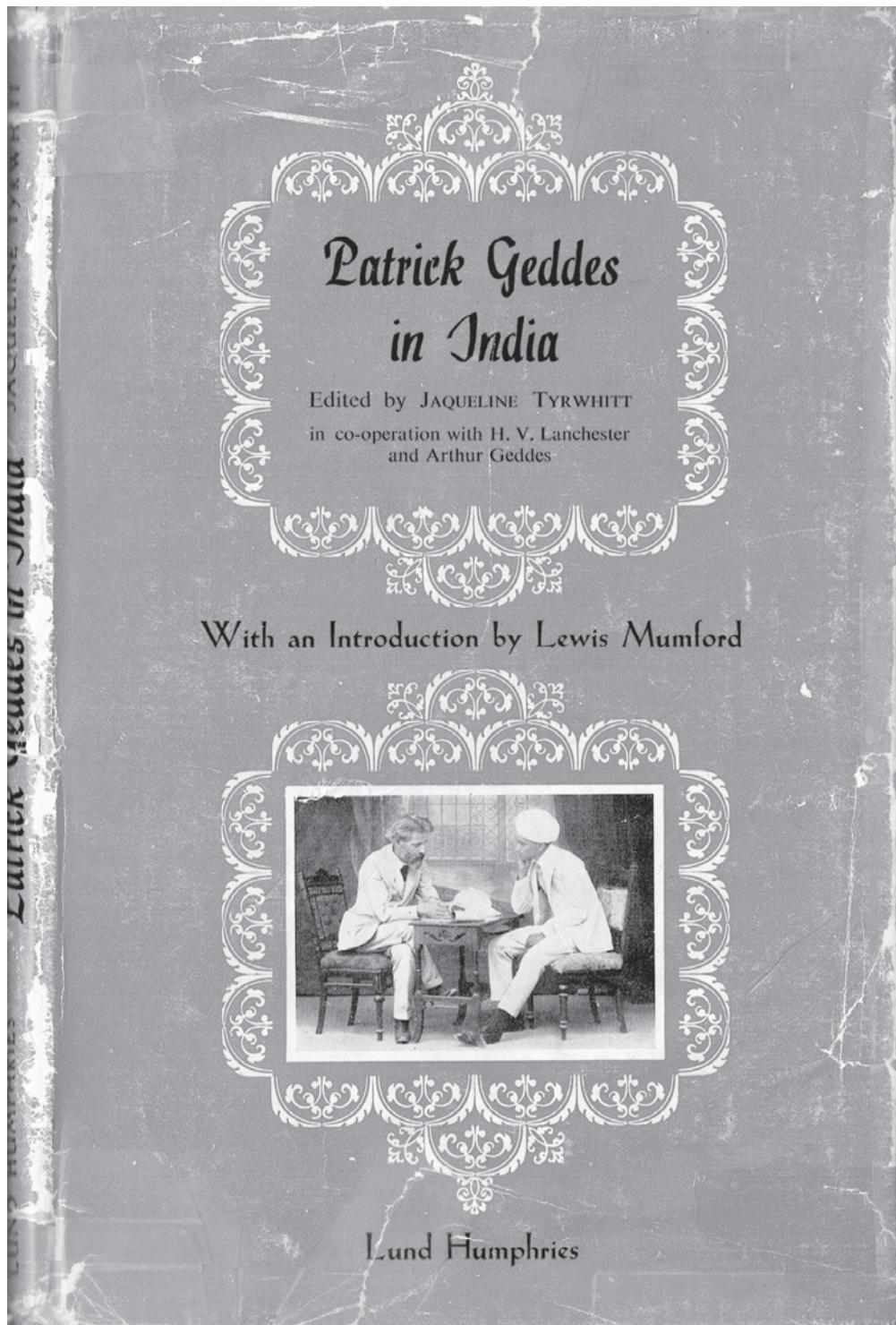


Figure 1 – Couverture de l'édition : GEDDES, P. *Patrick Geddes in India*, édité par J. Tyrwhitt, H. V. Lanchester et A. Geddes, introduction de Lewis Mumford, Londres, Lund Humphries, 1947.

Le *survey before planning* consiste en une étude assez rigoureuse fondée sur une cartographie du vivant, des mentalités et de la société que Geddes relie aux caractéristiques d'espace, de temps et de fonction. Il pointe des situations concrètes du moment analysé, sans oublier la vision historique ni l'interprétation et la valorisation d'éléments présents pour construire une vision du futur. En cela, Geddes propose une analyse sociologique autant qu'anthropologique et géographique. Pour développer cette analyse dans tous ses *reports* indiens, il fait allusion à la marche comme façon de pénétrer intimement les labyrinthes de la ville : *starting by walking* (Geddes, 1915, p. 53), *active peregrination* (Geddes, 1917a, p. 1), *repeated perambulation* (Geddes, 1917b, p. 1 ; Geddes, 1918, p. 1). Pour Geddes, la marche est l'outil essentiel de connaissance d'un territoire et de ses habitants. Pour Madras, il explique que le processus de planification est une conséquence directe du travail d'arpenteur :

« *The work cannot be done in the office with ruler and parallels, for the plan must be sketched out on the spot, after wearying hours of perambulation – commonly amid sights and odours which neither Brahmin nor Briton has generally schooled himself to endure.* » (Geddes dans Tyrwhitt, 1947, p. 44)³

La référence à la marche comme base du *survey* pour le développement des quartiers et de la ville sera présente dans tous les *reports* indiens.

Le *conservative surgery*, littéralement « chirurgie conservatrice » ou de façon plus contemporaine « microchirurgie urbaine », est proposé pour intervenir dans les quartiers informels de différentes cités. Pour ces quartiers en apparence chaotique, Geddes, contrairement aux postulats modernistes, propose des interventions délicates, minutieuses et pensées de manière à limiter les démolitions et les ouvertures trop excessivement hygiénistes et fonctionnalistes (figures 2 et 2 bis⁴). Il travaille à respecter l'existant, le déjà-là, en économisant de fait sur les dépenses tant énergétiques que budgétaires. Il met en valeur des petits espaces naturels en ville ou encore, par exemple, souligne l'importance d'avoir des arbres fruitiers productifs comme source d'autonomie alimentaire. Mais, tout autant que l'aspect botanique, les aspects locaux des savoir-faire, des traditions et des cultes religieux sont repérés, analysés puis valorisés en tant qu'éléments structurant de la cité. Par exemple, les petits espaces publics reliés au temple, parfois associés à un arbre sacré ou une source d'eau, sont identifiés comme des espaces symboliques d'importance dans la construction d'un réseau de petites places qui constituent autant d'endroits pour de potentielles petites

3. « Le travail ne peut pas être fait dans un bureau avec la règle et l'équerre, le plan doit être puisé sur le site, après avoir fait des heures de marche – souvent au milieu de situations et d'odeurs que ni le Brahmane ni le Britannique ne sont habitués à supporter. »

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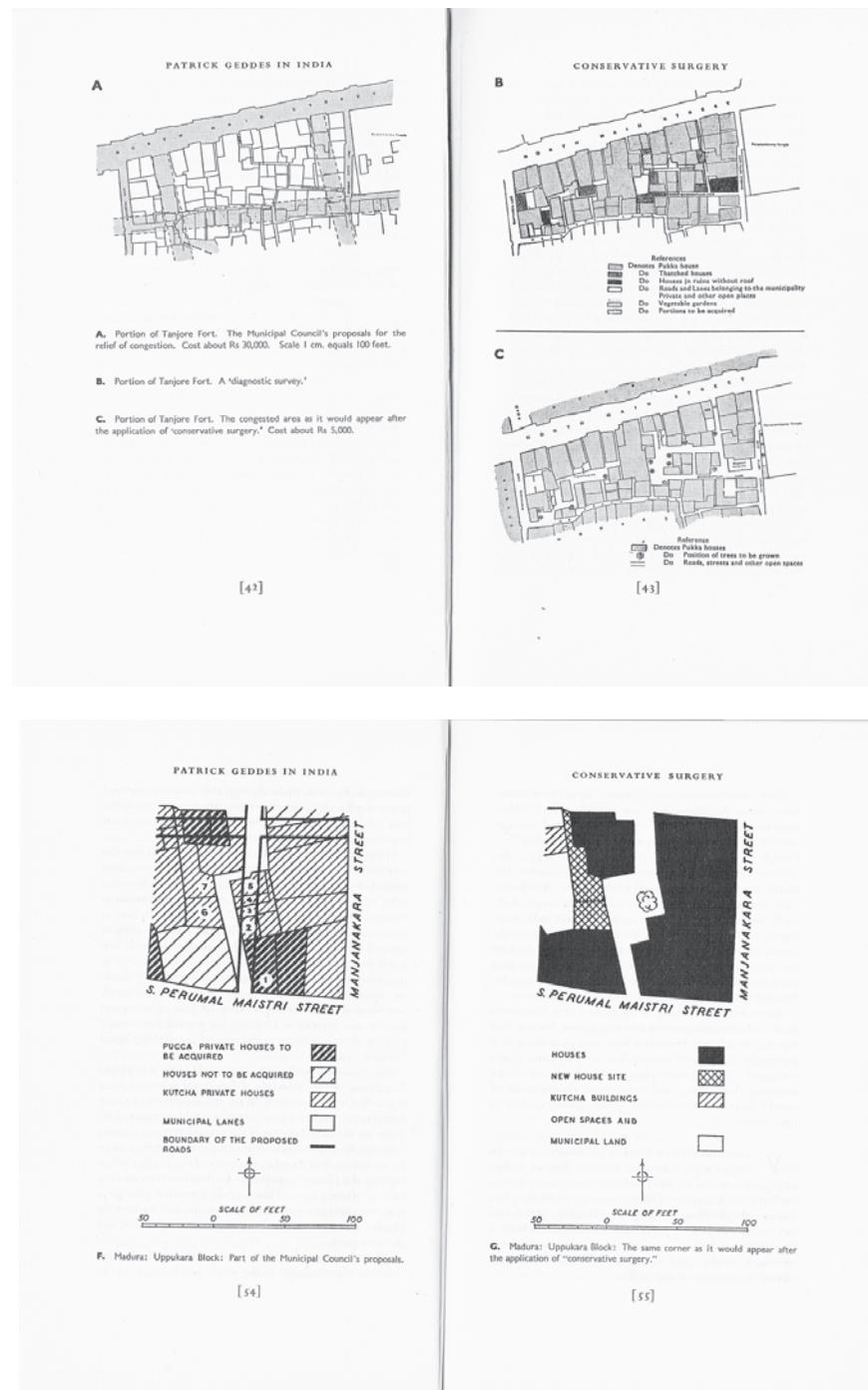


Figure 2 et 2 bis – Conservative Surgery in Madura et Tanjore Fort (noms de figures) présentés dans l'édition : GEDDES, P. *Patrick Geddes in India*, édité par J. Tyrwhitt, H. V. Lanchester et A. Geddes, introduction de Lewis Mumford, Londres, Lund Humphries, 1947.

ouvertures (figure 3⁵). En particulier dans l'ouvrage *Temple Cities* (1919), Geddes interprète l'architecture et l'urbanisme indien selon des critères non-ethnocentriques, en mettant en lumière l'importance des différentes religions indiennes dans la configuration des villes.

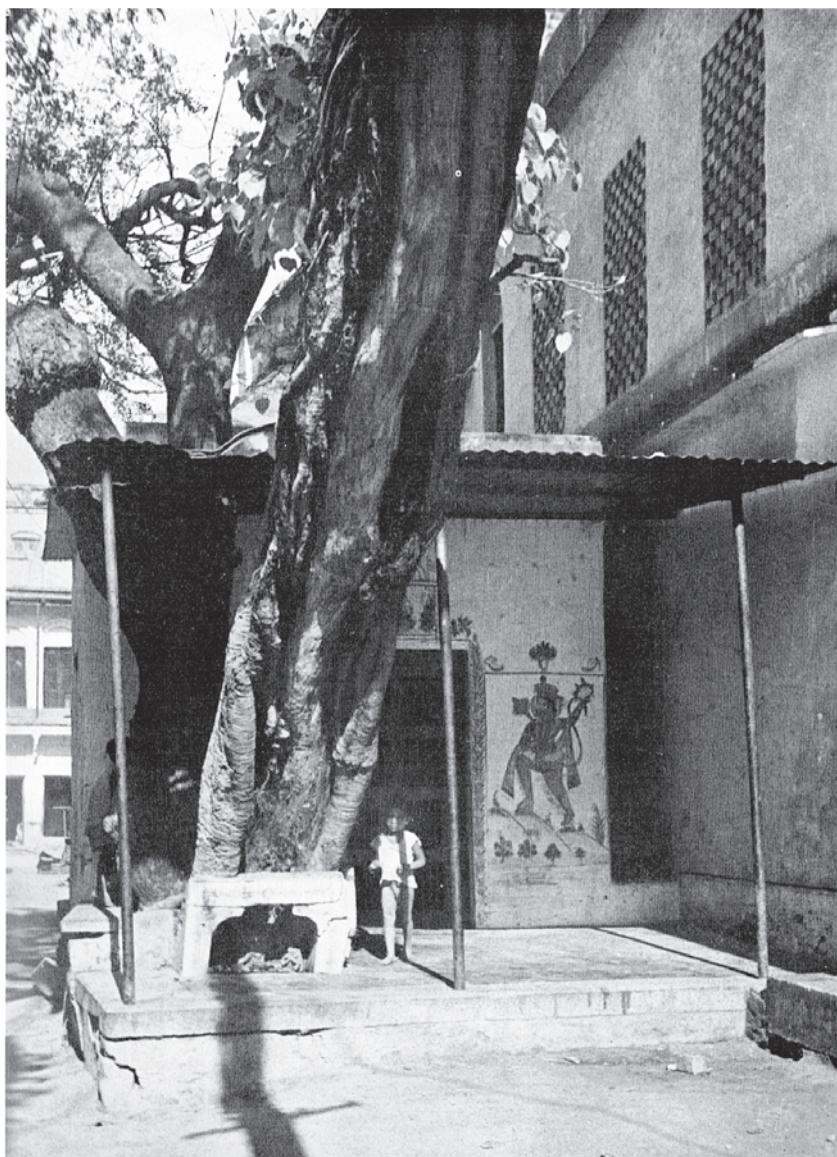


Figure 3 – Photographie de Anthony Denney présente dans l'édition :
GEDDES, P. *Patrick Geddes in India*, édité par J. Tyrwhitt,
H. V. Lanchester et A. Geddes, introduction de Lewis Mumford,
Londres, Lund Humphries, 1947.

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Ces analyses concernent également les questions hydrauliques qui sont d'une importance vitale dans ses *reports*. En effet, la distribution de l'eau, la valorisation des canaux d'irrigation et d'assainissement ou *nalas*, la mise en valeur des lacs et des marécages représentent pour Geddes des éléments essentiels de ressources en eau pour une ville et ses habitants, que ce soit en tant que système écologique de drainage ou comme moyen de maintenir un niveau phréatique sain.

Dans une époque coloniale où l'occidentalisation culturelle était de mise, Geddes pense, d'une façon qui pourrait être interprétée comme pré-postcoloniale, la microéconomie locale, l'importance et les rôles des métiers manuels, le respect des religions et des lieux de culte, vertèbres des quartiers. Pour Geddes, la culture se transmet à travers l'apprentissage social et par l'oralité. C'est pourquoi les femmes indiennes jouent un rôle si important à ses yeux, celui de dépositaires et de véhicules de la mémoire de ce tissage du quotidien. Ce *social heritage* est l'une des notions indispensables pour comprendre l'évolution de la pensée geddesienne, et notamment l'importance qu'il donne aux questions d'éducation et de partage des connaissances (Ferraro, 1998).

Il est passionnant aussi de noter dans ses *reports* indiens sa vision avant-gardiste du rôle des techniciens des différents services urbains et de la pertinence de la coopération entre les acteurs impliqués dans l'organisation d'une ville. Geddes parle d'un technicien qualifié qui rendrait service à la société et dont les connaissances et la compréhension des caractéristiques locales ainsi que le contact avec les habitants seraient essentiels. Il imagine un technicien ayant une appétence sociale et un enthousiasme civique lui permettant de parcourir les quartiers et d'encourager les habitants à participer à l'amélioration de l'ambiance commune :

« Local knowledge and understanding are essential to the town planner, together with consideration and tact when dealing with the individual requirements of citizens. Other requirements are powers of social appeal and civic enthusiasm that will enable him to arouse neighbourhood after neighbourhood to participate in schemes of improvements instead of remaining indifferent to them. Only in this way can he gradually inspire the city as a whole. For such work, moral influence and energy are needed in no small measure. [...] Above all the planner must possess a sustained courage and a contagious glow of feeling. » (Geddes dans Tyrwhitt, 1947, p. 37)⁶

6. « La connaissance et la compréhension locale sont essentielles pour le *town planner* ainsi que la considération et le tact lorsqu'il traite les exigences individuelles des citoyens. Les autres exigences sont les pouvoirs du *social appeal* et de l'enthousiasme civique qui lui permettront de susciter quartier par quartier la participation aux plans d'amélioration, au lieu de l'indifférence. C'est seulement de cette manière qu'il peut progressivement inspirer la cité comme un tout. Pour cela, influence morale et énergie sont nécessaires en grande mesure. [...] Surtout le *planner* doit posséder un courage soutenu et partager avec ardeur son ressenti. »

Chez Geddes, le *planning* n'est pas seulement un instrument d'amélioration des conditions environnementales pour la vie de chacun, il est également un outil de décision collective permettant de collecter et débattre des éléments du passé et du présent, autant pour les préserver que pour les transmettre. Autrement dit se pose la question de savoir quelles empreintes conserver et mettre en perspective dans le projet pour le tourner vers l'avenir.

Geddes insiste sur le fait qu'un technicien doit être doué d'une générosité basée sur l'écoute et d'une capacité à apprendre et à valoriser les connaissances aussi bien de l'érudit que du vagabond. Ces réflexions seront développées bien plus tard, en particulier par Michel de Certeau.

Geddes énonce de façon très avant-gardiste le besoin de coordination locale entre les différents agents et les différentes municipalités :

« But it is plainly time for the co-operation of the regional geographer with the hygienist, and of both with the concrete sociologist, the student of country and town, of village and city ; and also for the furtherance of their labours, the discussion of them in detail, in friendly conferences representative of all the various groupings and interests concerned. » (Geddes, 1915, p. 44)⁷

Pour synthétiser l'approche de Geddes quant à la finalité de tout projet urbain, nous citerons ce qu'il écrit sur Madura :

« Town Planning is not mere Place-Planning, nor even work-planning. If it is to be successful, it must be folk-planning. This means that its task is not to coerce people into new places against their associations, wishes, and interest. [...] Instead its task is to find the right places for each sort of people ; places where they will really flourish. » (Geddes dans Tyrwhitt, 1947, p. 22)

ENTRE PATRIMOINE ET PROJET

Les nombreuses pièces écrites, graphiques et cartographiques produites au cours de ses séjours en Inde montrent à quel point sa perception du déjà-là est écosystémique, plus qu'organique. Sa démarche, passionnante, dévoile des allers-retours permanents entre microsystème et macrosystème, pour comprendre la vie urbaine et humaine qui s'y développe et l'accompagner par le projet.

Par l'articulation des aspects techniques, humains ou encore économiques, il s'agit pour Geddes de ne jamais perdre de vue la relation vitale qui lie l'homme à son environnement et de l'envisager comme un tout. Sa réflexion est globale alors que l'action et les interventions prônées se déclinent et s'établissent au cas par cas. Ainsi les nombreuses cartes redessinées par Geddes alternent le détail de l'aménagement urbain et l'esquisse de l'organisation territoriale.

7. « C'est le moment de la coopération entre le géographe régional et l'hygiéniste, tous les deux avec le sociologue, et l'étude de la campagne, le village et la cité, et pour la poursuite de ses travaux, la discussion détaillée entre eux, en conférences amicales représentatives des différents groupes et intérêts en jeu. »

Par sa méthode de *conservative surgery* qu'il réinvestit à chaque nouveau « diagnostic prospectif », les propositions de Geddes sont à chaque fois uniques dans le sens où elles résultent de la compréhension globale d'un territoire, de ses habitants et de leurs usages formant par définition un ensemble spécifique aux caractéristiques repérées.

Au-delà de l'appréhension spatiale approfondie des lieux par leur arpenteage corporel et le recueil de la parole habitante lors de nombreuses rencontres, Geddes développe une attention aux temporalités et aux rythmes. Le développement urbain s'envisage alors comme un processus qui s'étend dans l'espace comme dans le temps, et dont passé, présent et futur forment un seul et même fil temporel. Le développement, généralement croissant, de la cité indienne résulte bien d'une transmission (*social heritage*) qui laisse à chaque fois des traces, des subsistances, ou encore des empreintes qui constituent en partie la base d'un renouveau urbain permanent. Sa démarche n'est pourtant pas celle d'un conservateur tourné vers le passé, mais bien d'un « accompagnateur » qui tente de prolonger, et non de figer, un fonctionnement des choses dans le temps tout en projetant des améliorations.

À travers l'étude plus précise du *report* sur la ville d'Indore (figure 4⁸), nous avons été amenés à soulever plusieurs hypothèses qui interrogent la relation entre patrimoine et projet, entre déjà-là et devenir.

Mémoire du futur

La première hypothèse invite à partir des travaux de Geddes, à réfléchir non pas sur le patrimoine, mais sur « ce qui fait patrimoine » et consisterait à dire qu'à travers la lecture d'une ville, nous pouvons lire à la fois son passé et son avenir, le passé contenant l'avenir de manière latente, inscrit dès l'origine de la cité, dans ses « gènes initiaux ». Ainsi ce devenir ferait patrimoine avant même son existence physique.

Au regard des travaux indiens de Geddes le *social heritage* est bien une histoire de transmission et de mémoire où, loin de suivre une démarche qui consiste à conserver au maximum les marques d'un passé plus ou moins lointain, ce qu'il décrit d'ailleurs fortement, Geddes s'inscrit dans une dynamique vitaliste, fertile et organique. Ce ne sont pas les éléments qui témoignent de l'histoire de la cité qui l'intéressent, mais bien un corpus hétérogène qui raconte une histoire, celle d'un territoire avec ses habitants, ses usages, ses pertes, ses latences et ses reconductions, des éléments transmis à travers le temps qui donnent à lire, à comprendre et à poursuivre une évolution.

8. Nous tenons à remercier pour leur aimable autorisation de reproduction la University of Strathclyde à Glasgow.



Figure 4 – VI River region (greater Indore). Carte présente dans l'édition : GEDDES, P. *Town Planning towards City Development. A Report to the Durban of Indore*, vol. 1, Indore, Holkar State Printing Press, 1918.
Collection University of Strathclyde : Patrick Geddes papers
(archives reference: TGED/22/1/INDIA/1284/4).

Chaque élément du quotidien est ainsi pour Geddes susceptible de faire patrimoine comme signe, code, trace de la mémoire des lieux, s'il peut se révéler comme ayant de véritables potentialités à investir ou réinvestir dans le projet. Tangibles, intangibles, latents ou cachés, ces éléments sont repérés. Le travail du *survey before planning* prend ici tout son sens. Plus qu'un relevé il

s'agit d'un véritable travail d'enquête minutieux, une expédition archéologique qui sonde la ville à tous les niveaux. Le *survey* geddesien est une étape essentielle qui permet de capter puis d'interpréter l'épaisseur du territoire, cette stratification temporelle qui ne cesse de se modifier et d'évoluer par l'apport successif de nouvelles strates. L'interprétation de ce palimpseste urbain construit pour Geddes un cadre et un récit pour comprendre et relire le territoire afin de pouvoir y intervenir.

Le décodage et la compréhension de ce palimpseste composent une stratigraphie urbaine originale car elle n'est pas basée sur des couches temporelles, mais sur des éléments de nature différente : le sol, le végétal, l'eau, l'air, le bâti des différentes périodes, les éléments d'ambiances relevées, les anciens usages et les actuels, la valeur symbolique des lieux et les éléments de mémoire orale que Geddes énonçait comme *social heritage*.

Par sa constitution variée parfois difficile à décrypter, cet ensemble s'apparente à une structure entremêlée qui s'établit dans le temps et que Geddes invite à prendre en compte dans sa globalité, comme le résultat d'une « concrescence » (d'un croître ensemble) :

« In city planning then, we must constantly keep in view the whole city, old and new alike in all its aspects and at all its levels. The transition in an Indian city, from narrow lanes and earthen dwellings to small streets, great streets and buildings of high importance and architectural beauty, form an inseparably interwoven structure. » (Geddes dans Tywhitt, 1947, p. 26)⁹

L'étude précise des temporalités qui composent la cité met à jour des processus qui permettent de se détacher d'une stratification uniquement temporelle pour montrer comment les strates d'époques ou de natures différentes ne se recouvrent pas les unes les autres, mais forment conjointement et dans leurs évolutions un tout, un lieu. Il s'agit alors à partir des divers éléments recueillis au cours du *survey before planning* de reconstituer la logique de la croissance urbaine et de la continuer pour interroger ce que Geddes énonce comme un « possible » urbain, et que nous regardons comme un « devenir ». Pour ce faire Geddes s'intéresse tout particulièrement au noyau urbain, véritable point de départ de son enquête, procédant par abduction.

« In most cities, the center and germ of origin is easily and soon discovered, as from cross-roads, from River-crossing at a Ford and later a Bridge, or from a Fair; a Palace or a Fort, as the case may be, and with characteristic varieties of

9. « Pourtant dans la planification des villes, nous devons constamment garder en vue la ville dans sa globalité, vieille et nouvelle à la fois, dans tous ses aspects et à tous ses niveaux. La transition dans une ville indienne, des passages étroits avec des habitations en terre aux petites rues, des larges rues aux bâtiments importants et à la belle architecture, tout cela forme une structure entremêlée non-séparable. »

Bazar accordingly. Yet despite considerable experience of such enquiries, it took me a good many days of exploring and puzzling in Indore before finding its historic nucleus. »(Geddes, 1918, p. 1)¹⁰

À travers ce cœur urbain, plus qu'une lecture passéeiste, ce sont les traces d'un devenir en formation qui sont perçues et décryptées. Ce futur conjugué au passé, parfois difficilement lisible, mais garant du maintien de l'équilibre vital urbain, s'apparente en tout point à une construction organique. Le « gène ancestral » contient dès sa formation l'écriture d'une évolution à venir, le tissage d'un futur en construction porté par les conditions favorables du milieu auquel il appartient.

À partir de ce parallèle, le « devenir » reste bien un « possible ». Autrement dit, une prolongation incertaine dans sa lecture, son interprétation et sa mise en œuvre dont les éléments latents originellement présents dans les couches stratifiées de la ville et de son territoire font et feront patrimoine, car étant partie prenante de ce « tout » précédemment évoqué, transmis au cours du temps.

DE L'ÉPAISSEUR MÉMORIELLE AU PROJET

La lecture et l'interprétation de ce palimpseste, qui révèlent des éléments mémoriels témoignant d'une évolution passée et à venir, constituent une étape au fondement de la planification urbaine pour Geddes. Cette étape permet de définir un cadre d'intervention en se positionnant en continuité d'un existant. Par ce constat, notre seconde hypothèse est relative à sa mise en œuvre.

La méthode de *conservative surgery* imaginée et mise en pratique par Geddes, serait l'articulation même permettant la prolongation tangible entre éléments de patrimoine et potentiels de projet, en intervenant comme un acte de *tunning*, entre préservation et actualisation de la mémoire.

Nous supposons de ce fait que la microchirurgie de Geddes est un geste qui tend à la régénération d'un milieu, rendant parfois une requalification de ses tissus urbains possible. Par des interventions locales et minutieuses, qui concrétisent des potentialités repérées en amont, c'est bien un ensemble urbain et territorial qui est visé. Il s'agit de réinvestir les marqueurs mémoriels les plus pertinents à la transmission et à l'évolution de la mémoire, dans sa matérialité et son immatérialité, en tant que potentiels de projet.

Si nous revenons maintenant au terme de *conservative surgery* et que nous reprenons sa traduction littérale de « chirurgie conservatrice » un paradoxe

10. « Dans la plupart des villes, le noyau, le germe original est facilement et rapidement mis au jour, à partir des carrefours, des gués qui plus tard deviennent des ponts, ou à partir d'une foire, d'un palais ou d'un fort, comme cela peut être le cas et selon les différents types de bazars. Pourtant, malgré une expérience considérable dans de telles enquêtes, il me fallut bien quelques jours d'exploration et de réflexion sur Indore avant de trouver son noyau historique. »

s'établit entre le terme de *chirurgie* – qui s'apparente à une intervention qui vient modifier un état des choses – et celui de *conservatrice* qui inversement renvoie à la posture statique de conservation. L'inscription contraire de Geddes dans une logique biologique dite active, nous amène à interroger la différence entre l'acte même de conservation et le sens donné ici au terme de *conservative*.

Nous entrevoyons ainsi le sens de *conservative* comme permettant un maintien de la vie et l'assurance d'une transmission d'une génération à une autre, par la réparation, la modification, la reconduction ou l'ablation de tissus anciens – parfois lésés – pour en permettre le renouvellement, et non pas conserver pour ne pas « oublier », comme une tentative de se soustraire à un processus évolutif, en cherchant à tout prix le maintien d'un même état dans la durée.

Comme le souligne Lewis Mumford dans l'introduction de *Patrick Geddes in India*, Geddes s'inscrit dans le respect et la compréhension d'un ordre naturel qui fait la particularité de sa démarche : « *He saw both cities and human being as wholes ; and he saw the processes of repair, renewal and rebirth as natural phenomena of development* » (Mumford dans Tyrwhitt, 1947, p. 11)¹¹.

Plus judicieusement il nous semble que *conservative* pourrait alors se traduire par *réparatrice* plutôt que *conservatrice*, d'autant que son association au terme *surgery*, induit une gestuelle réparatrice, voire salvatrice, résonnant plutôt comme une marque de projet, un acte de visibilité et de concrétisation.

La pratique de *conservative surgery*, par sa réinterprétation des éléments qui font patrimoine en tant que potentiels de projet et par ses interventions significatives locales, engendre un renouveau urbain (comme c'est le cas avec le réseau discret formé, les temples qu'il met en évidence ou encore le repérage systématique des arbres en regard d'espaces potentiellement récupérables). En établissant une réciprocité permanente entre les différents niveaux d'études, cette pratique urbaine marque nettement la volonté de Geddes de respecter un équilibre naturel, en excluant toute posture de table rase – n'entrevoyant que l'avenir – et à l'opposé de la conservation totale – tournée vers le passé – qui empêcherait tout renouvellement.

Le passé, dans l'introduction de Lewis Mumford, correspondrait à de vieilles racines permettant la croissance et le développement de jeunes pousses, constituantes d'une « surépaisseur » amenée à se stratifier à son tour avec ses pertes, ses traces et ses reconductions à la manière d'un cycle naturel : « *Just because Geddes respected the old roots of regional culture, he had no interest in limiting its expression to some historic moment of the past : if the roots were*

11. « Il concevait la cité et ses habitants comme un tout, et les processus de réparation, réhabilitation et renaissance urbaines comme des phénomènes naturels. »

alive, they would keep on putting forth new shoots, and it was in these new shoots that he was interested » (Mumford dans Tyrwhitt, 1947, p. 8)¹².

MÉMOIRE NATURELLE ET AMBIANCE URBAINE

Geddes n'oubliait jamais que toute ville est construite sur un territoire préanthropique qui la façonne. Mettre en valeur cette mémoire naturelle fait partie de son travail et constitue pour lui un élément caractéristique et toujours singulier des ambiances urbaines. En cela, les travaux indiens de Geddes anticipent en quelque sorte ceux qui viendront bien plus tard sur les ambiances urbaines. Geddes regarde la ville comme un écosystème urbain, prenant en compte des aspects comme la réverbération thermique, les flux d'air et leurs dynamiques en relation avec les surfaces ombragées, les spécificités de la faune et de la flore urbaines, la fertilité et l'hydrologie des sols, l'insalubrité ou la qualité de l'eau urbaine, etc. Ses petites interventions déjà décrites de *conservative surgery* mettent en avant la présence d'un arbre de grande taille auprès de chaque temple et l'importance de son ombre dans ce climat chaud. Il propose dans ce tissu dense, de créer de petites ouvertures, pour faire un peu de place et « faire place », d'y planter d'autres arbres, d'y ajouter une fontaine d'eau publique. Il pense la végétalisation urbaine avec des arbres fruitiers pour participer à l'autonomisation alimentaire des habitants de la cité... (figure 5¹³).

En ce qui concerne l'aspect botanique, Geddes s'intéresse aux paramètres qui influent directement sur l'ambiance urbaine, comme le montre ce texte (Lucknow) lorsqu'il parle des friches urbaines et de la viabilité des projets de plantation d'arbres dans celles-ci. Il affirme :

« The cost of tree planting is a frequent objection. This can be mitigated by the establishment of municipal tree nursery on one of many available sites of good cultivated, or cultivatable, land that are at present unoccupied. [...] Everyone appreciates shade, but few realise how great a secondary service is performed by a tree in absorbing not only the radiant heat and light from the sun but also from the buildings and road surfaces all around it. Trees grow dusty, but dust-catching is also useful. Better dust upon the leaves of the trees than in the lungs of the citizens. [...] The judicious planting of trees may also increase breezes instead of impeding them. » (Geddes, 1917c, p. 67)¹⁴

12. « C'est justement parce que Geddes respectait les plus vieilles racines des cultures régionales qu'il n'avait aucun intérêt à rattacher ses réflexions historiques : si les racines vivaient encore, elles devaient continuer d'exister au travers de nouvelles pousses, et c'est ces nouvelles pousses qui intéressaient Geddes. »

13. Nous tenons à remercier pour leur aimable autorisation de reproduction les éditions Lund Humphries à Londres.

14. « Le coût des plantations d'arbres est une objection fréquente. Ceci pourrait être nuancé par l'implantation de pépinières municipales dans certaines des très nombreuses friches disponibles.

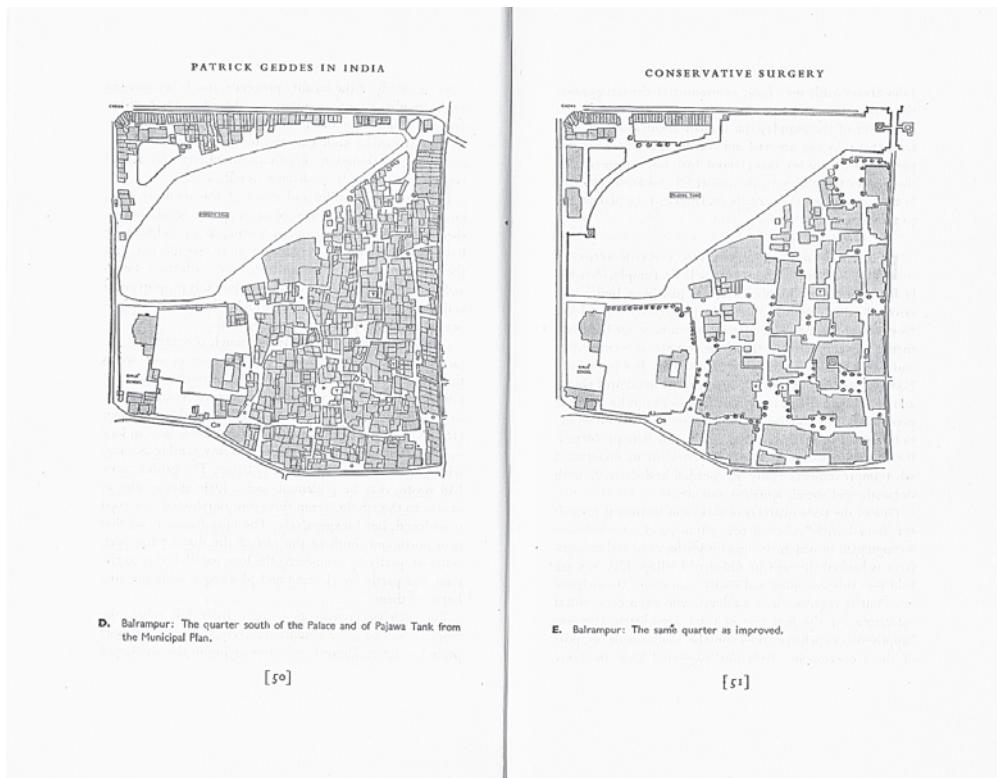


Figure 5 – Conservative Surgery in Balrampur présente dans l'édition :
GEDDES, P. *Patrick Geddes in India*, édité par J. Tyrwhitt,
H. V. Lanchester et A. Geddes, introduction de Lewis Mumford,
Londres, Lund Humphries, 1947.

Il est aussi très intéressant de voir comment Geddes valorise les éléments hydrauliques présents dans le territoire préanthropique sous-jacent à la ville. Une sorte de mémoire naturelle, qui est lisible par les tanks, les réservoirs des villes indiennes. Contrairement à l'opinion négative de la municipalité envers ces réservoirs d'eau qui, selon elle, favorisent la prolifération de moustiques et en conséquence, des maladies, Geddes propose de les conserver, de les nettoyer fréquemment et de réinstaller des espèces animales pour recréer un écosystème et ainsi, contrôler la population de moustiques :

[...] Tout le monde apprécie l'ombre, et les arbres n'absorbent pas seulement la radiation solaire et la chaleur du sol, mais aussi celle des bâtiments et surfaces adjacentes. Les arbres poussent dans la poussière et la captent, ce qui est aussi très utile. Il est préférable que la poussière soit sur les feuilles que dans les poumons des citoyens. [...] Une plantation judicieuse d'arbres devrait également augmenter les brises au lieu de les empêcher. »

« The many values of the village reservoirs or tanks are seldom appreciated by sanitarians or those in administrative positions. Much could be said of their value during the long dry season in maintaining the water level both in wells and in the soil. A town rich in these reservoirs, and sloping towards them, is assured against flooding by rain-bursts. Sudden floods often overflow insufficient drains and storm water channels and destroy properties in lower areas of towns where storage tanks, such as would have been constructed by old-fashioned Indian engineers, would have prevented inundation. The cooling value of reservoirs has an appreciable influence on health and comfort, often forgotten by those who live in civil stations outside the town, with lofty rooms, shady verandahs and spacious gardens. [...] flows through the streets, especially if these are shaded by trees, and appreciably reduces the temperature of the area. » (Geddes, 1917d, p. 36)¹⁵

Ce travail colossal de réactivation et de prolongation mémorielle par la pratique du territoire dans ses divers aspects amène une dernière hypothèse qui interroge le rôle de la représentation, de l'interprétation et de la transmission de ces données.

LA MARCHE, LA CARTE ET LE RÉCIT : À LA CROISÉE DES MÉMOIRES

À travers les divers documents produits par Geddes lors de ses séjours en Inde, nous supposons en effet que la représentation graphique – ici plus particulièrement la carte – et la narration écrite ne peuvent être saisies que par la lecture de l'une à travers l'autre, comme deux objets indissociables. Par cette complémentarité semble se former le support de projection d'un passé et d'un devenir, dans lequel se lit la mémoire des lieux.

Car si carte et récit semblent au premier abord s'appréhender comme deux éléments de retranscription à part entière, ils sont, nous semble-t-il, pour Geddes, un seul et même outil projectuel. Très nettement lorsque nous superposons carte et récit nous retrouvons les sensations d'un voyage.

Ainsi, nous pénétrons à notre tour les couches stratifiées d'un palimpseste urbain que nous ne connaissons qu'à travers les documents, en naviguant entre passé, présent et avenir, mais également entre les rues étroites d'Indore.

15. « Il y a de nombreuses raisons qui font que ces réservoirs d'eau ou tanks sont très peu appréciés par l'administration locale. Beaucoup de choses pourraient être dites en leur faveur, spécialement pendant la saison sèche, en garantissant le niveau d'eau des puits et celui de la nappe phréatique. Une ville riche de ces réservoirs procure une protection contre les inondations. Souvent soudaines, celles-ci dépassent les capacités de drainage des canaux d'irrigation et détruisent des propriétés sur les zones les plus basses des villages, alors que les réservoirs de stockage d'eau comme ceux que les vieux ingénieurs indiens ont construits auraient pu les prévenir. La valeur de rafraîchissement de ces réservoirs a une influence appréciable sur la santé et le confort, souvent oubliés par ceux qui habitent dans les stations civiles, à l'extérieur de la ville, avec d'amples chambres, porches à l'ombre et jardins spacieux. [...] La différence de température de l'air du réservoir provoque une circulation d'air, en particulier si les rues sont à l'ombre des arbres, ce qui réduit sensiblement la température de la zone. »

« Thus, for instance, after admiring this view north-east – architecturally one of the best in Indore – let the observer turn up-stream, and note how fine would be the effect of a new Temple placed upon the round bastion of the old Rampart, and built to command this Ford, upon the main River; (now the Causeway to Ara Bazar). For here a white temple with graceful spire would be seen from far and near, and doubled by its reflection mirrored in the stream. » (Geddes, 1918, p. 8)¹⁶

La force projectuelle constituée par l'association de ces deux formes de narration réside en majeure partie dans la précision graphique et écrite, qui rend compte pas à pas d'une lecture mémorielle et historique. Chacun de ces deux supports devient une retranscription labyrinthique où s'enchevêtre une lecture partagée du temps, de l'espace et de la société.

En amont de cette narration, le *survey before planning* convoque par la pratique de la marche, de la rencontre et de la projection une multiplicité de mémoires, qui convergent à travers l'arpenteur. Qu'il s'agisse d'une mémoire humaine, personnelle, ou encore naturelle, cet ensemble constitue le socle d'un devenir en construction.

Ainsi cette « mémoire sociale » se dédouble en étant en partie propre à chacun et partagée par une communauté. Par sa sollicitation elle permet de faire de chaque habitant, voyageur, ou encore ingénieur des acteurs de leur propre territoire en les envisageant à juste titre comme indissociables du système urbain auquel ils prennent part. Car au-delà de ses considérations biologiques et écosystémiques, Geddes tendait plus que tout à la valorisation des individus et de leurs savoir-faire locaux, quels que soient leur statut et leur place dans la société. De cette manière, lors des *surveys before planning*, Geddes s'entourait d'équipes locales capables de l'accompagner dans la compréhension et la retranscription du territoire qu'il arpentait. Nous savons d'ailleurs que les différents redessins présents dans le *report* d'Indore s'appuient sur des cartes existantes produites précédemment par les institutions indiennes.

L'interaction mémorielle, qui mêle à la fois données sensorielles, personnelles, communes ou encore naturelles, est précisément ce qui fait naître un récit des lieux appelant encore et toujours à son prolongement et à sa relecture. Par la carte il s'agit alors de raconter une histoire de prime abord spatiale dont les diverses formes, fonctions et mouvements prennent vie à travers un récit écrit. Par la narration écrite, qui inclut et fixe sur le papier un recueil oral, il

16. « Ainsi, par exemple, après avoir admiré cette vue nord-est – architecturalement parlant l'une des plus belles à Indore – nous laissons l'observateur se retourner, et imaginer le bel effet que produirait un nouveau temple installé sur le bastion arrondi du vieux rempart, construit pour surveiller et maîtriser le gué au-dessus la rivière principale (désormais devenu la chaussée qui conduit à l'Ara Bazar). Ici, un temple blanc aux majestueuses flèches serait remarqué de près comme de loin, et prolongé par son reflet dans le miroir du courant d'eau. »

s'agit de nous orienter dans l'espace cartographique et de relater une évolution dans le temps en rendant possible une projection passée, présente et à venir. L'association de ces deux médias invite à un véritable arporage mental, un espace de projection, qui en suivant le parcours d'une expédition in situ donne à lire une « mémoire des lieux » qui loin d'être figée sur le papier appelle à se renouveler par la prolongation de sa transmission.

La tendance actuelle qui consiste à faire projet par l'apport collectif, sous-entendu en s'appuyant principalement sur une ressource citoyenne considérée comme actrice principale du renouvellement de son territoire, fait écho à la démarche prônée et appliquée par Patrick Geddes il y a de cela plus d'un siècle. En réintégrant l'histoire urbaine, la mémoire naturelle, la parole habitante, l'héritage culturel ou encore l'inconscient collectif dans nos propositions de planification urbaine, il s'agit de produire un récit nouveau et d'orienter le devenir urbain. Cela ne signifie pas s'opposer à toute construction nouvelle ni à l'idée de projet urbain, bien au contraire, c'est en travaillant ces « variables » que le « nouveau » dans la ville trouve un profond enracinement culturel grâce au travail de mémoire et à la préservation des valeurs qui lient une société à un lieu. Mémoire et avant-garde se côtoient pour réactiver à travers des usages l'expérience urbaine. Explorer les limites entre urbain et naturel, ville construite et ville vécue, en vue de construire une théorie-pratique de la planification et de l'intervention urbaines.

Le travail sur la mise en place de micro-initiatives locales variées, notamment en lien avec la nature, et la prise en compte d'un « déjà-là » dans ses divers aspects, tel un ensemble mémoriel à définir et à possiblement réinvestir dans le projet, fait de Geddes un auteur étonnamment pertinent pour notre contemporanéité.

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Habilitation à Diriger des Recherches

Le quotidien en projets Parcours, coupes, travellings et autres transects

Nicolas Tixier

Résumé

Ancrée dans le champ des ambiances architecturales et urbaines, cette habilitation à diriger des recherches rend compte dans un premier temps d'un parcours personnel tout autant que collectif, réalisé à la croisée de différentes pratiques : recherche, projet, pédagogie. De toutes ses activités, il s'en dégage une problématique commune, *le quotidien en projets* et une hypothèse méthodologique transversale, *le transect urbain comme pratique de terrain, technique de représentation et posture de projet*. Cette problématique et cette hypothèse sont déployées dans un second temps dans quatre chapitres comme autant de façons d'éprouver des passages et des hybridations entre recherche et projet.

Un premier déploiement « Lieu des Récits / Récits du lieu » explicite une façon dont on peut recueillir des récits en marchant dans le cadre de projets urbains. La marche est un des outils qui le permet par le focus naturel sur ce qui compose le quotidien d'un lieu et l'interrogation des liens entre passé, présent et futur qui se produit lors des échanges. Il s'agit ici d'expliciter d'abord les principes que nous avons mis en œuvre. Il s'agit ensuite de résister et de questionner les différents usages, apports et limites qui peuvent être faits tant au niveau de la méthode, ici « les marches collectives » qu'au niveau des récits produits ou encore avec le passage au projet.

Un deuxième déploiement « Traversées et miniatures urbaines » s'intéresse à de grandes traversées cinématographiques d'une ville et à leur potentiel rétrospectif. Un film d'hier, peut-il aujourd'hui nous aider à penser les espaces de demain ? Et si l'espace des mobilités du Paris des années 20 avait déjà des attributs que nous recherchons aujourd'hui pour les espaces métropolitains de demain ? Cette hypothèse se fonde sur la capacité d'un film, ici *Études sur Paris* d'André Sauvage (1928), grâce à sa construction en cinq traversées urbaines et au décalage temporel, à nous révéler une épaisseur de ressources spatiales et usagères insoupçonnées.

Un troisième déploiement « Le transect urbain, où comment couper la ville par son milieu » s'intéresse à la coupe urbaine et à ses potentiels appliqués aux questions environnementales. La coupe urbaine peut-elle être un lieu de rencontre entre les enjeux environnementaux globaux et les enjeux locaux d'ambiances situées prenant en compte les dimensions sensibles de l'espace et les pratiques habitantes ? Sur cette hypothèse de départ de la coupe urbaine comme mode de représentation permettant d'articuler ce qui habituellement est séparé, à savoir les objets construits, le monde sensible et les pratiques sociales, nous avons mené plusieurs travaux exploratoires appliqués aux préoccupations environnementales nous entraînant avec la notion de transect vers des passages au projet.

Un quatrième déploiement « L'expérience de la reconduction » s'intéresse au principe de reconduction d'un travail de description ou de captation dans un lieu donné. Si la figure du transect se construit et se représente classiquement par une ligne spatiale. Qu'en est-il de son potentiel temporel ? Quelles épaisseurs temporelles se dégagent le long de ces lignes, tant vers le passé, que vers son devenir ? Comment articuler les temporalités cycliques du quotidien au temps long de l'évolution d'un lieu ? Enfin, peut-on aller jusqu'à définir comme transect le fait de fixer un point localement et de se déplacer le long d'une ligne de temps ? On regardera ces questions à partir des façons dont le temps et l'espace sont présents dans différentes expériences de reconduction mobilisant texte, photographie ou vidéo.

Pour conclure, la place du récit que l'on situera entre héritages et fictions sera interrogé au regard de la pratique et du rôle tant de l'architecte que de la pratique de l'enseignement dans les écoles d'architectures.