

Alexandre MURER

Urban Plangineering Student



PORTFOLIO



UTCompiègne

Urban Systems Engineering



U. of Illinois at Urbana-Champaign

Department of Urban and Regional Planning

SKILLS AND PROJECTS

- > GIS Mapping
- > Urban Planning Contest
- > Sustainable Development
- > Public Spaces

- > Built Environment
- > Architectural Modelling
- > Land Use Analysis
- > Research
- > Urban Transportation

URBAN PLANNING CONTEST

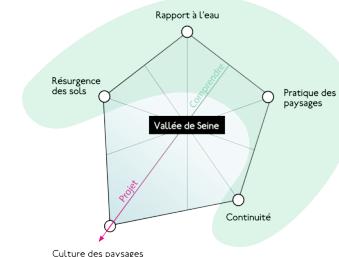
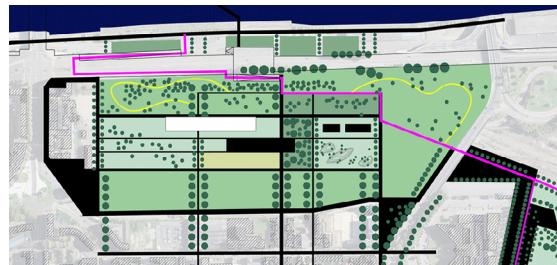
Urban Design Proposals for the Seine Urban Renewal - From Paris to Le Havre

2

THE CONTEST

I formed the group Seinographie in November 2016 with eight other students in architecture, landscape design, engineering, urban planning, etc. in order to participate to the urban planning contest ERGAPOLIS. We worked on three plots of the 200km long Seine Corridor, between Paris and LeHavre. In May 2017, two juries of scholars and professionals awarded us the annual prize.

Final report available upon request

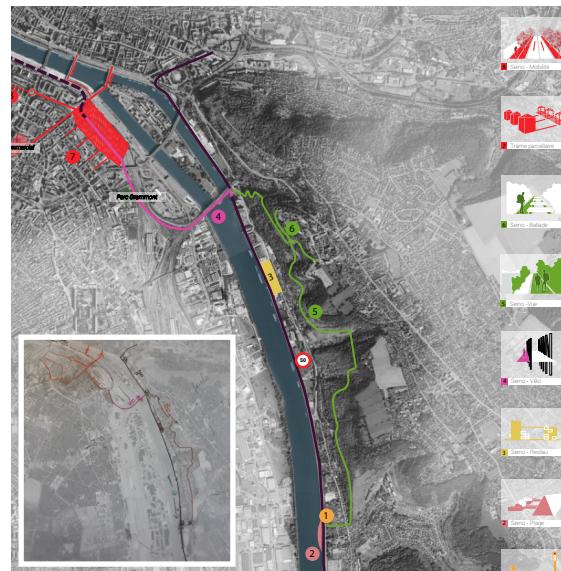


TRAINING

In parallel with the contest, Ergapolis organized several trainings. I obtained a certification in Sustainable Urban Design from the French Agency for Environment and attended a workshop given by a famous Parisian urban planner.

PROPOSITIONS

In six months, we designed a landscape park to animate a polluted plain and a masterplan for the urban rebound of the Rouen area. Along with this teamwork, I undertook various tasks, such as project coordination, land use design, as well as the innovative layout for the urban renewal of Rouen. I finally built up Seinographie's urban vision with the two other team leaders.



PUBLICATION

[Read the Article](#)

With two Seinographie members, I wrote an article explaining our philosophy and guidelines for renewing the notion of "city-nature" in the *Review Sur-Mesure*.

URBAN PROGRAMMING

Six-month internship at the urban planning agency Ville Ouverte

3

URBAN PROGRAMMING PROJECTS

During my six-month internship at Ville Ouverte, I took part in three main projects of the **urban programming** team: a general land-use analysis of a 100-acre business park next to Lille's airport, a pre-study for the urban renewal of Roubaix, and a general urban and landscape framework of the Southern University of Paris.

1 MOBILITÉ



ENJEUX / CONTEXTE

Offre de mobilité pour les déplacements professionnels/reunions/livraisons(...), hors trajets domicile-travail.

TYPE D'OFFRE / DIMENSIONNEMENT

Flotte de véhicules + mobilité décarbonnée. Diversité de l'offre : voitures de ville + véhicules utilitaires.

dimensionnement : à discuter avec l'équipe

2 FORMATION-RÉUNION-ÉVÉNEMENTIEL



ENJEUX / CONTEXTE

Mutualisation des besoins en espaces de réunion / réception / formation pour les entreprises du site.

TYPE D'OFFRE / DIMENSIONNEMENT

Espaces de réunion/réception avec service traiteur, adossés à une offre de restauration.

Reservable par le grand public en soirée / le week-end.

100-1000 m².

3 RESTAURATION



ENJEUX / CONTEXTE

5000 salariés sur le site. Offre très insuffisante sur le CRT.

Petite offre sur le PA de la Motte et à Lesquin.

INvariants

Miser au maximum sur les circuits (très courts) et les filières biologiques.

Diversité de type de nourritures, gammes, et situations : individuel / en groupe, self-service / service à table, restaurant / traiteur, sur place / à emporter, pause / réunion de travail, dédans / dehors.

TYPE D'OFFRE / DIMENSIONNEMENT

> restauration inter-entreprises (y compris offre de restauration à emporter) : 2500-3000 couverts - 2500-3000 m²

(à finir de renseigner avec le CRT)

> restauration inter-entreprises à table : 100-150 m² par restaurant

> café / bar :

> 100-150 m²

> service traiteur et livraisons : peut être assuré par un restaurant

OPPORTUNITÉ À DISCUTER :

UNE DIMENSION AGRICOLE ?

ENJEUX / CONTEXTE

Opportunité de circuits très courts pour la restauration vs. valorisation du foncier

TYPE DE PROGRAMME / DIMENSIONNEMENT

> Marachage/insertion : 1 à 4 ha

> Serres : production "technologique"

1000 - 5000 m²

> Potager sur les toits : 100 - 1000 m²

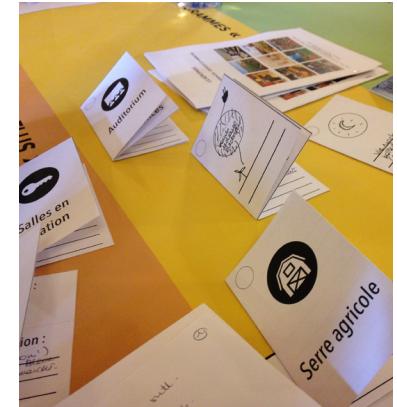
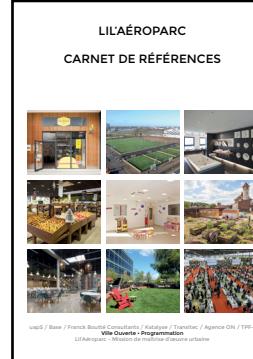
UN DATA CENTER ?

ENJEUX / CONTEXTE

Stockage des données des entreprises du site, et gestion de l'énergie nécessaire (refroidissement) à l'échelle du site.

TYPE DE PROGRAMME / DIMENSIONNEMENT

> références à trouver



PROGRAMMING TOMORROW'S URBAN PROJECTS

Beside my projects for public organizations, Ville Ouverte committed me an internal study on the emerging market of calls for innovative urban projects (Réinventer Paris, Inventons la Métropole... the model recently got international with C40's **Reinventing Cities**). This study was based on existing press articles and 15 interviews I conducted with scholars and professionals.

EXCHANGE PROGRAM AT THE U. OF ILLINOIS

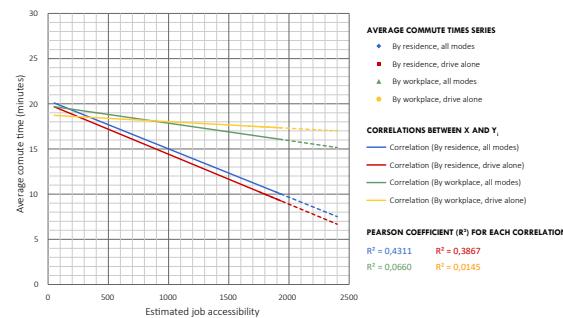
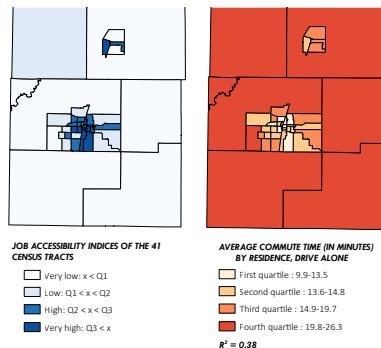
Skills improvement in the American urban context and mindset

4

BRINGING TRANSPORTATION AND LAND USE TOGETHER

Public transit ridership is very low in the United-States. Through this issue is often said to be related to transportation policies, urban patterns play a key role in travel behavior. I decided to take a course on the link between transportation habits and land use to contribute to the sustainable planning effort.

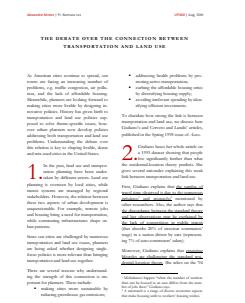
Thanks to scholarly readings and several essays on datasets, I worked on my own with diverse software (Excel, R, QGIS, Illustrator, InDesign), and analyze the interactions between transportation habits and land use development.



DESIGNING WALKABLE AND BIKABLE CITIES

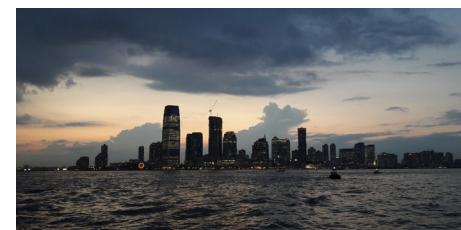
In the birthplace of auto-centered urban planning, urban design approaches are improving the (re)inclusion of pedestrians and bikers in public spaces.

My course on pedestrian and bicycle planning gives me the keys to develop infrastructure and policies that may let urban vitality rebound in American cities.



EXPERIENCING THE US CITY

Along with my courses and urban planning projects, I enjoyed my stay in the US by visiting several cities. It's important for me to experience the urban design, transportation and policies that are still shaping the American urban landscape. My understanding of these places is strengthened by the Political-Economy course I currently attend on the Modern American City.

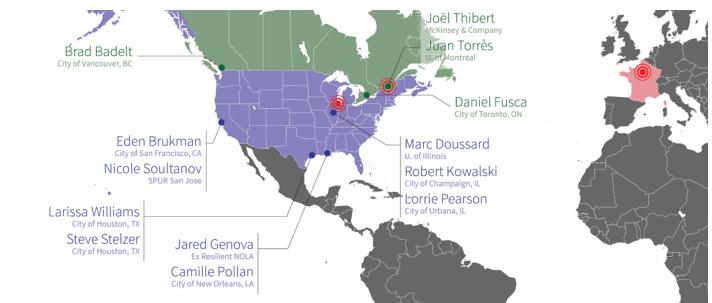


ECONOMICS FOR PLANNERS

In order to complete my skills in urban planning, I registered for a course on urban economics. Through this field, I gain a better understanding of the business models underlying urban planning and policy issues. I plan to do my research paper on the economics of free-floating systems.

UNDERSTANDING AMERICA'S SUSTAINABLE PLANNING

In tandem with my activities in the US, I conducted research on sustainable urban planning developed in the US. This research is monitored by my home university and benefits from a partnership with another exchange student in Canada.



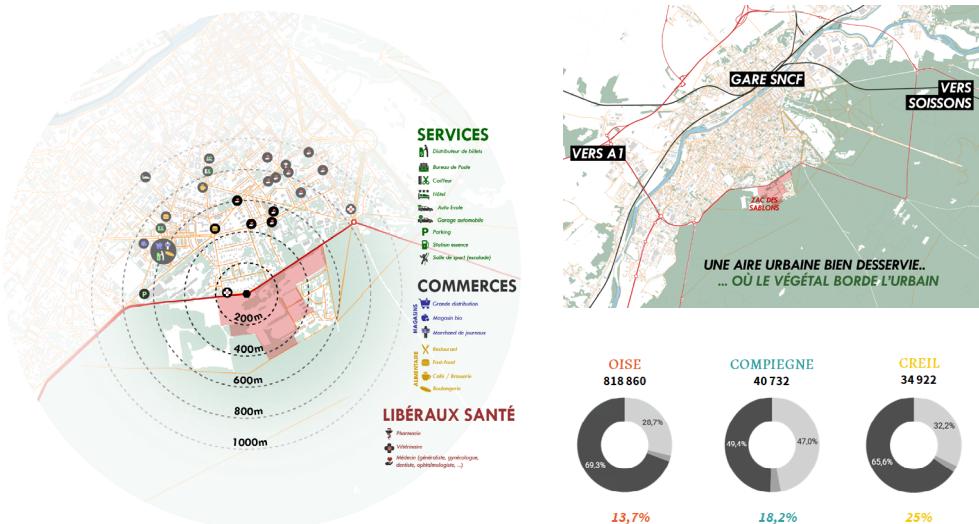
URBAN PROGRAMMING PROJECT

Masterplan review for the Sablons area, in Compiègne - France

5

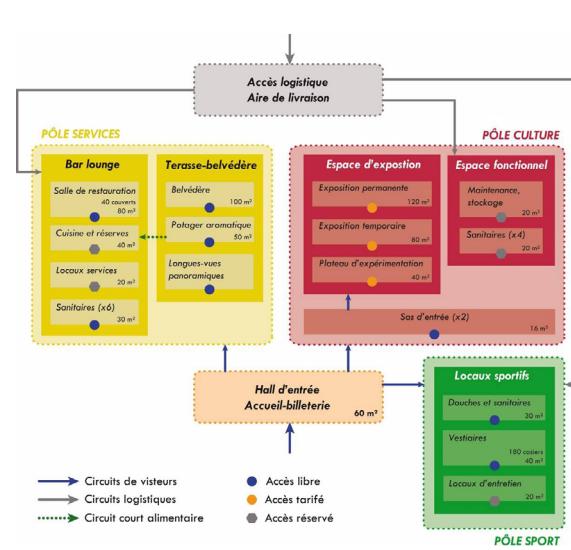
EXISTING CONDITIONS

With four other students, I wrote a comprehensive existing-conditions report on the City of Compiègne. This document compiled data on the socio-demographic profile of the city, its public facilities, retail and shopping areas, physical aspects, etc. I created all the maps (data collection, GIS computing, Illustrator visualizations) and did the census of public facilities and shops.



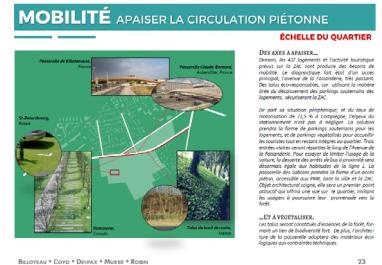
GENERAL LAND USE PROPOSALS

The plot was complex because of its location, at the frontier of the urbanized area and protected natural forest. We presented a so-called "program" (i.e., masterplan) focused on the mix of urban uses (housing, retail development) and natural recreation (sport activities, landscape pathways). The aim of the plan was to balance urban development and natural areas' protection.



SIZING THE "PROGRAMS"

In order to detail a specific element of our masterplan, we sized the uses of the iconic object of our program: the belvedere. This work enabled us to specify the links between the various uses of the building (observatory, sport changing rooms, restaurant, museum).



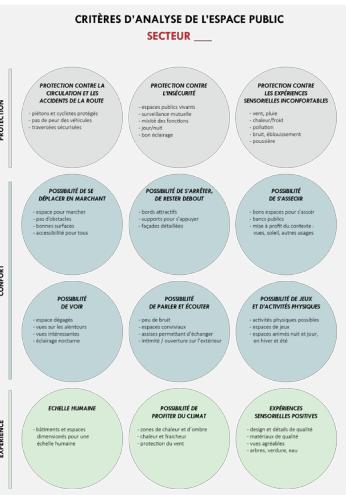
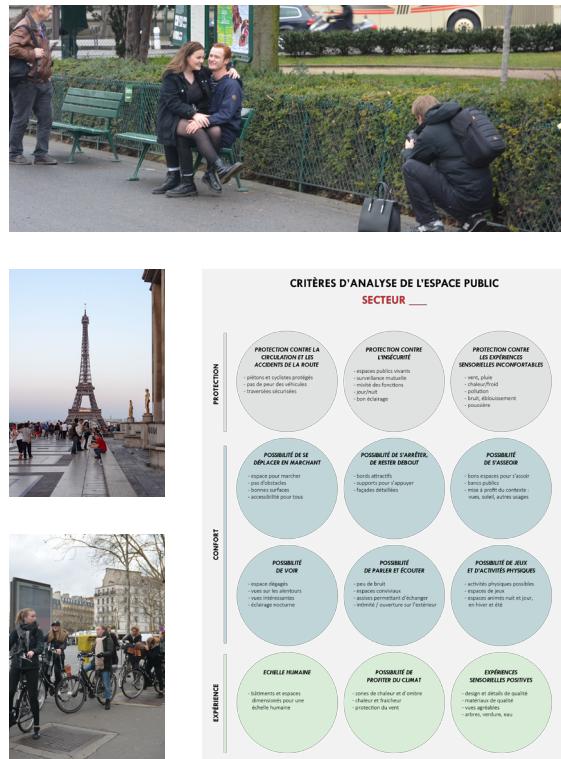
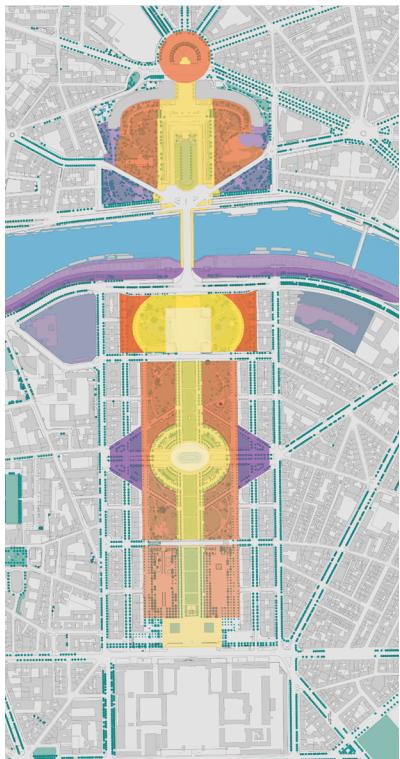
PUBLIC SPACE DESIGN

Pedestrian experience improvement proposals for the Tour Eiffel area, in Paris

6

UNDERSTANDING THE USES OF ICONIC PUBLIC SPACES

The Eiffel Tower is a world-class tourist site. This exceptional, iconic location is now welcoming a large diversity of touristic and residential uses that are sometimes hard to balance. To understand in what extent the Tour Eiffel area belongs to tourists and Parisians, we wrote an existing-conditions report. This document was based on several field visits and the placemaking method developed by Danish architect Jan Gehl.



RENEWING PUBLIC SPACE TO ADAPT IT TO EMERGING USES

Our proposals were focused on two spaces: the forecourt of the Eiffel Tower and the riverfront that faces the famous Parisian monument.

On the forecourt, we suggested adding value to the time that tourists spend in the line by providing cultural and interactive platforms that enable the visitors to learn about the monument while waiting. The project of the riverfront was to animate this strategic space to make it more attractive for residents and tourists, by enhancing pedestrian and bicycle facilities in the area.

CONNECTER LES QUAI : ESPACE RÉCRÉATIF ET DE FLÂNERIE

Coyo • Despax • Dubois • Loyer • Murer • Salou • Thomas UTC

ENJEUX

AXE 1 : Mettre en valeur la Seine en suscitant curiosité et émerveillement.
AXE 2 : Aménager une promenade végétalisée sur les quais hauts, propices à la cohabitation entre différents usages et utilisateurs.
AXE 3 : Permettre le cheminement ludique entre quais haut et quais bas.

OBJECTIFS

Mettre en scène la Seine par des ouvertures visuelles.
Ménager une rupture de la linéarité des cheminements piétonniers.
Proposer une plus grande perméabilité entre les quais hauts et bas.

PRÉSENTATION DU PROJET

Afin de redonner vie aux quais hauts actuellement délaissés, sous utilisés, à l'aménagement peu qualitatif, il s'agit de proposer aux touristes une promenade à la hauteur du prestige de la Dame de Fer.

Cette promenade végétalisée permettrait aux touristes et aux riverains de déambuler, isolés de la vie urbaine, baignant et mouvant grâce à la couverture végétale entre les quais et l'Avenue du Quai Branly. Différents aménagements viendront ménager des espaces de contemplation de la Seine ainsi que des espaces de repos et de loisir.

L'interface quais hauts / quais bas est repensée afin d'en faire un "entre-deux" agréable, incitant les usagers à emprunter ces deux niveaux avec envie. C'est essentiellement un espace urbain qui fera cette différence toboggans et gradins-escaliers permettront de relier les deux niveaux plus aisément.

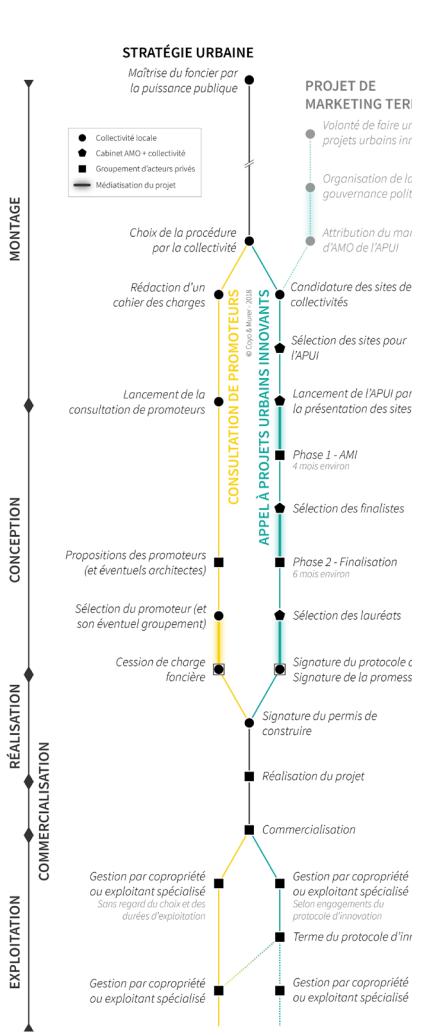
ANALYSE DE L'ESPACE PUBLIC

ANALYSE DES SPACES D'USAGES

INDEPENDENT RESEARCH

Study of the integration of sustainability goals in the “Réinventer” projects

7



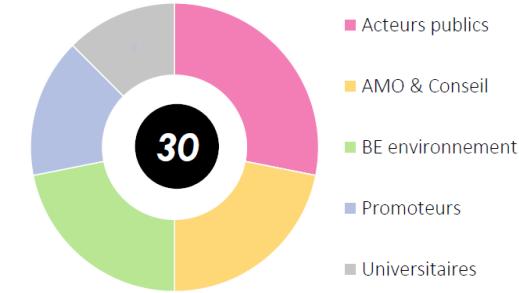
DÉVELOPPEMENT URBAIN DURABLE OÙ EN EST LA FABRIQUE URBAINE ?

SUSTAINABLE URBAN DEVELOPMENT: WHERE IS URBAN PLANNING HEADING TO?

In 2014, calls for innovative urban projects that emerged in Paris. After the “Réinventer” model was adopted by other cities, C40 launched Reinventing Cities in 2017, its own call for innovative urban projects inspired by the French “Réinventer”. From February to June 2018, I conducted an independent research with another student to spot the benefits and rising issues of this “Réinventer” movement.

This study was based on 30 interviews with professionals and scholars currently involved in “Réinventer” contests (from Réinventer Paris to Reinventing Cities).

We published our findings in five articles on *Medium* – in French – and gave a conference at the Paris Center for Architecture and Urban Planning in July 2018.

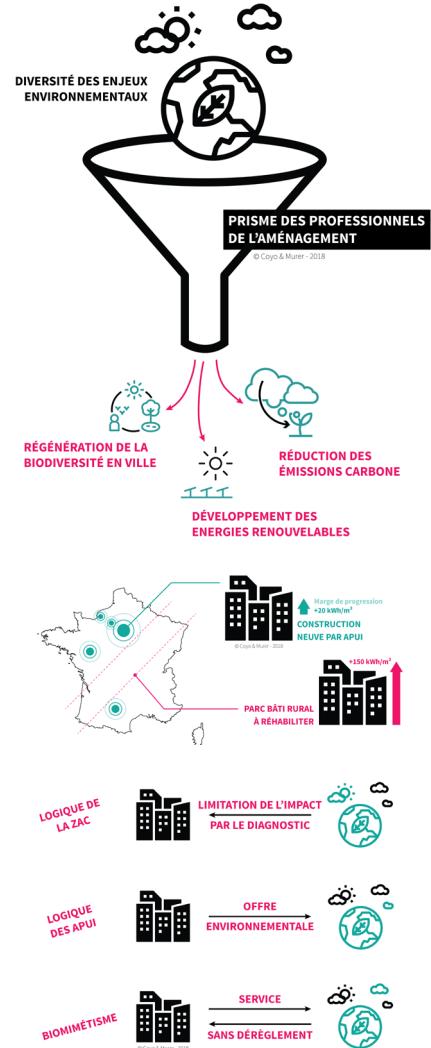


FINDINGS

Read the English Abstract

In France, calls for innovative urban projects create as many benefits as they raise questions on the urban future that we all wish for. In this complex transition, we identified three emerging trends that we believe will be established in the incoming years:

- as cities diversify their tools for public consultation and inclusion at all the levels of urban projects, social and economic inequalities will increase;
- the purpose of public-private partnerships is shifting from the design of urban projects to the management of public services; and
- innovation redefines the way urban...



ARCHITECTURAL MODELLING

Design of A. Campo-Baeza's House of the Infinite

8

TECHNICAL DRAWING

With five other students, I drew all the technical pieces required for obtaining a building permit in a French city. The work was done on AutoCAD.

NUMERICAL MODELLING

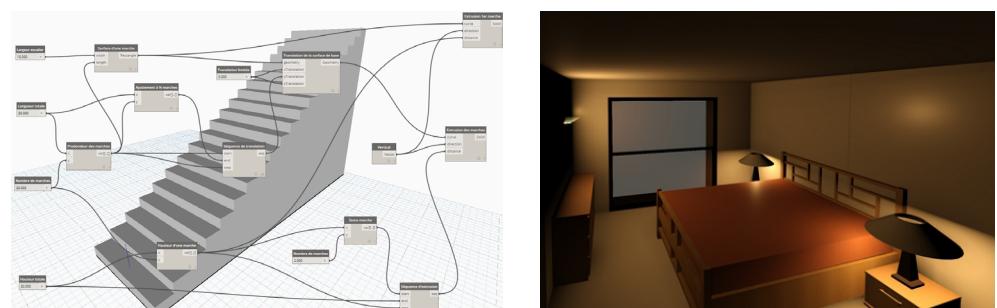
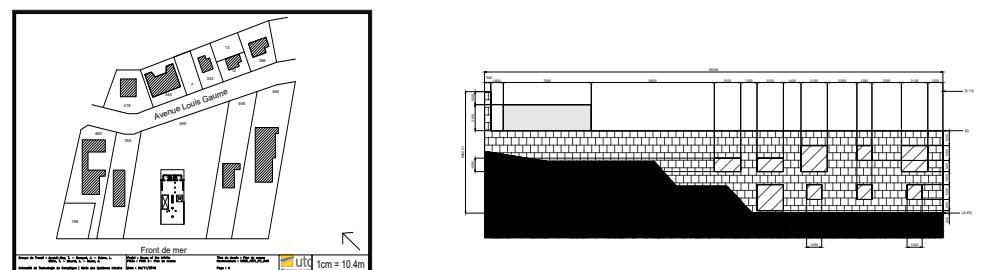
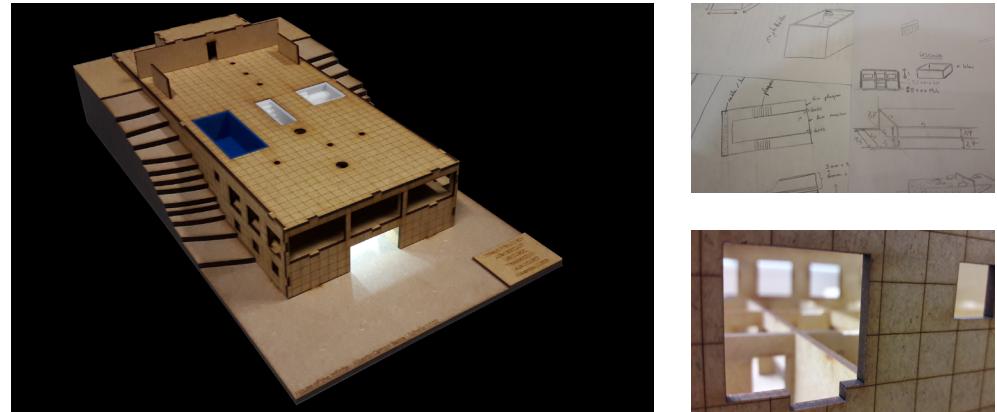
We modelled the whole building and close surroundings on REVIT ARCHITECTURE, and designed realistic deliverables and a virtual visit.

PHYSICAL MODELLING

I was in charge, with another student, to engineer the whole physical modelling process with 3D-printers and Laser cutters. We drew each of the 32 pieces on AutoCAD, then edited it on ILLUSTRATOR and manufactured them at our school's FabLab. We also added a LED light to better display the model.

VISUAL PROGRAMMING

In order to improve the tools we designed our model with, we built-up a REVIT function that enabled us to easily set-up the staircase of the house (see right).



OTHER WORKS

Comprendre, concevoir, développer l'espace urbain se fait aussi ici

9

All the works are available, in French, upon request

URBAN HEATING ANALYSIS

Assessed the energy demand of a building composed of three-room housing units in an urban environment. Used PLÉIADES-COMFIE software to design energy efficiency proposals.

SOCIOLOGY OF WORK

Produced a research paper of sixty pages titled "From the Construction Yard to the Manufacturing Plant: From a Worker to Another". Designed the paper as a literature review in order to contribute to a Sociology review.

PHILOSOPHY OF TECHNIQUES AND SCIENCES CONFERENCES

Attended a series of conferences on the Philosophy of techniques and cognitive sciences. Discovered, between 2015 and 2016, the works of active international researchers.

ETHICS OF THE CITY

Wrote a twentypage essay of which title was "Humanism and Technicism in Tomorrow's City." Compared visions of the "smart-city" in order to contribute to the debate over the definition of the future desirable city.

SCIENCE AND PUBLIC DEBATE

Studied the methods of public consultation and inclusion in major infrastructure projects. Briefed the work to other students and facilitated a student debate over the role of citizens in urban projects.

VALUE ENGINEERING

Conducted a functional analysis of foodservice sidebar. Designed a dozen functional charts and reported a benchmark over existing solutions. Proposed three alternative solutions to better users' experience.

LIGHTNING STUDY

Collaborated with a group of twelve students in order to assess the quality of lighting in a UTC building. Computed datasets in the software HELIODON and delivered a final, group presentation for two PhDs.

PHILOSOPHY OF WORK

Wrote a research paper on the working conditions in the sector of retail logistic warehouses (used for supermarkets or Amazon's deliveries). Reviewed the recent (2000-2015) literature over the subject.

INTERESTS AND INSPIRATIONS

- I self-trained to Q-GIS and still research GIS functions to use in order to design more appealing and relevant maps in my projects;
- Since 2017, I constantly stay on top of the "Réinventer" calls for urban innovative projects that are challenging French urban planners;
- In 2018, I mentored the UTC students in their participation in the ERGAPOLIS urban planning contest I won the previous year;
- [My Twitter account](#) is the place I share articles and my own works on #Urban Planning, #FreeFloating, #Reinventer - and learn from other professionals!

Alexandre MURER

Urban Plangineering Student

WHAT'S NEXT ?

After several experiences in the public and private sectors, always in planning and design departments, I am looking for my next professional projects in the field of Urban Design or Transportation Planning.

Equipped with diverse analysis and project management methods, I am looking forward to joining the teams of professionals who design the urban projects and policies that make sense in the ecological transition that our cities are now facing. As I am genuinely convinced that urban planning is a cross-disciplinary field, I am also keen on complex and collaborative projects.

Currently open to end-of-studies internship offers, I remain available to discuss future collaborations.

CONTACT

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- > **Skype :** alexandre.murer

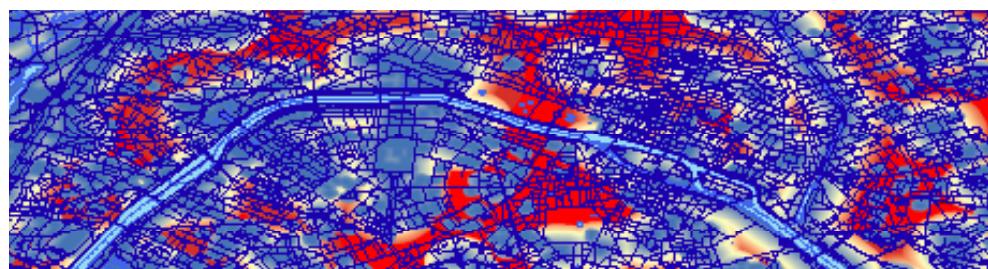
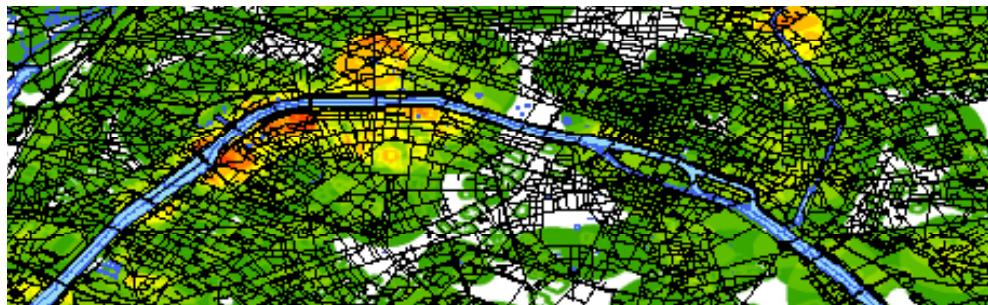


COMMANDÉ

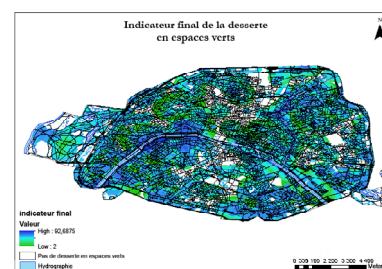
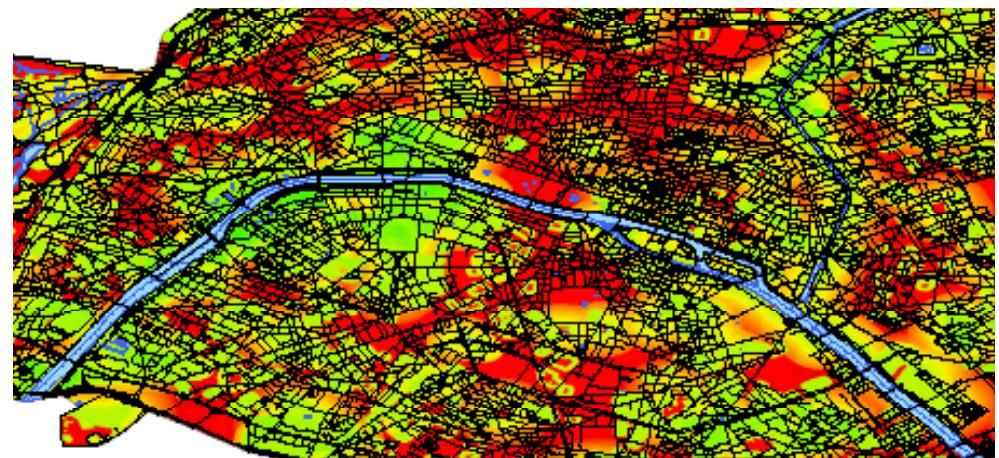
Au début 2016, l’Institut d’Aménagement et d’Urbanisme francilien a proposé aux étudiants de l’UTC de travailler sur une nouvelle méthode pour évaluer l’accessibilité aux parcs et jardins en Ile-de-France. Nous devions donc établir, en binôme, un indicateur innovant pour l’IAU, en mobilisant ArcGIS.

CONSTRUCTION DE LA DÉMARCHE

La démarche a été nourrie par la recherche de fonctionnalités du logiciel ArcGIS, ainsi que la lecture d’articles universitaires sur la perception des espaces verts, des distances dans l’urbain et des manières de représenter ces appréciations dans un SIG.



Après avoir identifié les paramètres permettant d’évaluer l’accessibilité aux espaces verts avec des approches quantitatives et qualitatives, nous avons introduit ces variables dans notre SIG. La pondération de ces variables nous a ensuite permis, dans un second temps, d’établir une série de cartes avec les données à notre disposition (avec les fonctionnalités vectorielles et raster du logiciel ArcGIS). En dernier lieu, nous avons identifié les espaces vides de verdure dans Paris pour proposer des pistes d’aménagements qualitatifs.

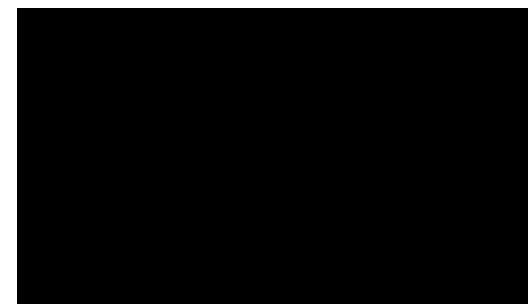
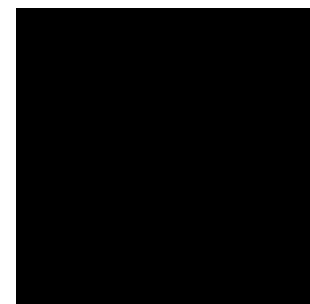
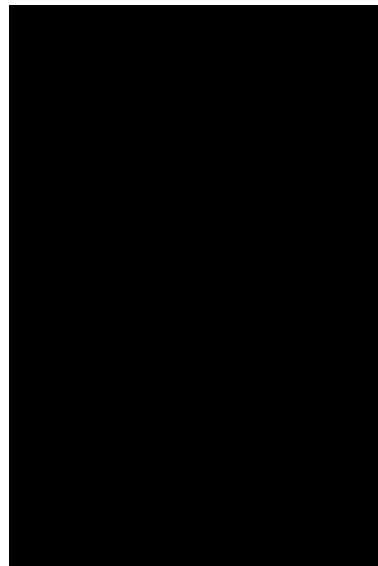
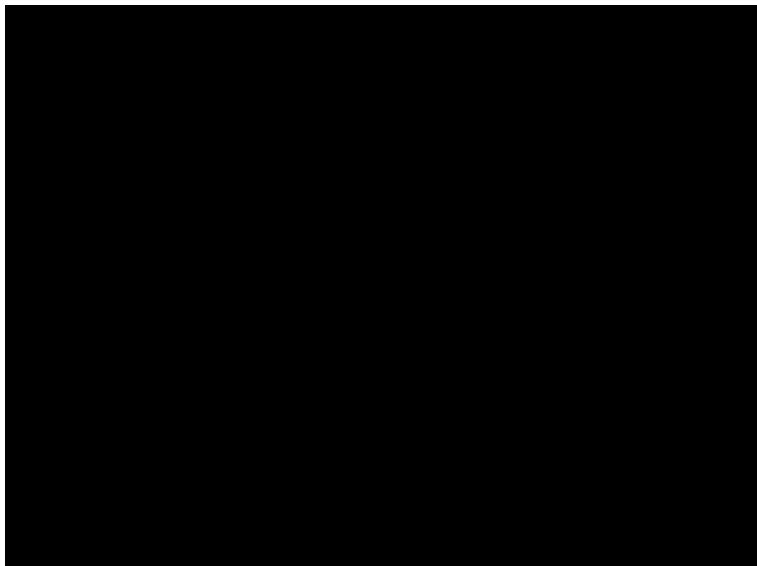
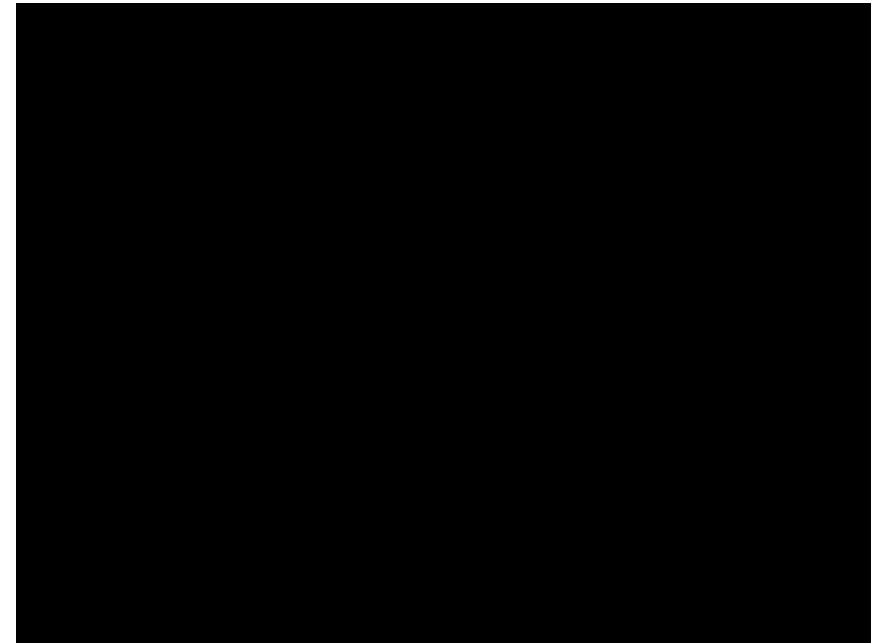
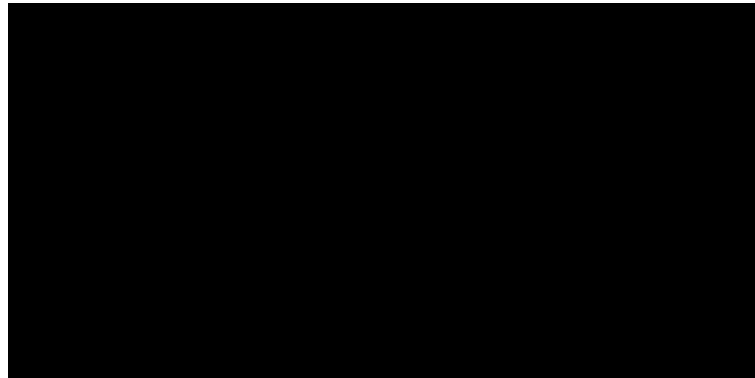
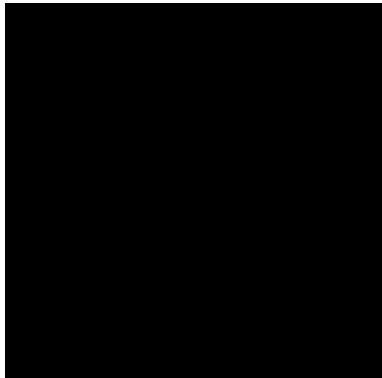


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1	Polygon	1	75101	308,367982	4068
2	Polygon	2	75101	296,607244	1269
3	Polygon	3	75101	368,366768	4841
4	Polygon	4	75101	146,751469	1427
5	Polygon	5	75101	307,198965	4332
6	Polygon	6	75101	235,3259	3345
7	Polygon	7	75101	146,320213	140
8	Polygon	8	75101	395,032	8185



Alexandre MURER
Etudiant en ingénierie urbaine

PORTFOLIO



CONCOURS CITYLAB ETUDE PRÉ-CONCOURS

Diagnositc et préconisations pour améliorer la mobilité sur le Port de Callao [Pérou]

SPREAD IN PROGRESS

EQUIPE-PROJET DE 22 ÉTUDIANTS

L'interface ville-port est une grande problématique urbaine pour la capitale péruvienne. Pour une durée de 4 mois, j'ai rejoint une équipe de 22 de l'UTC pour dresser un diagnostic et identifier les axes d'amélioration de la mobilité autour du Port de Lima. Dans le cadre du concours CityLab, ce travail a été réemployé par une autre équipe étudiante.

EQUIPE PROJET



MÉTHODOLOGIE

Ce projet, complexe de par la problématique étudiée, a aussi été un enjeu de gestion humaine des ressources de l'équipe. J'ai réalisé le panneau A0 devant présenter la démarche suivie par l'équipe et les groupes de travail restreints.

