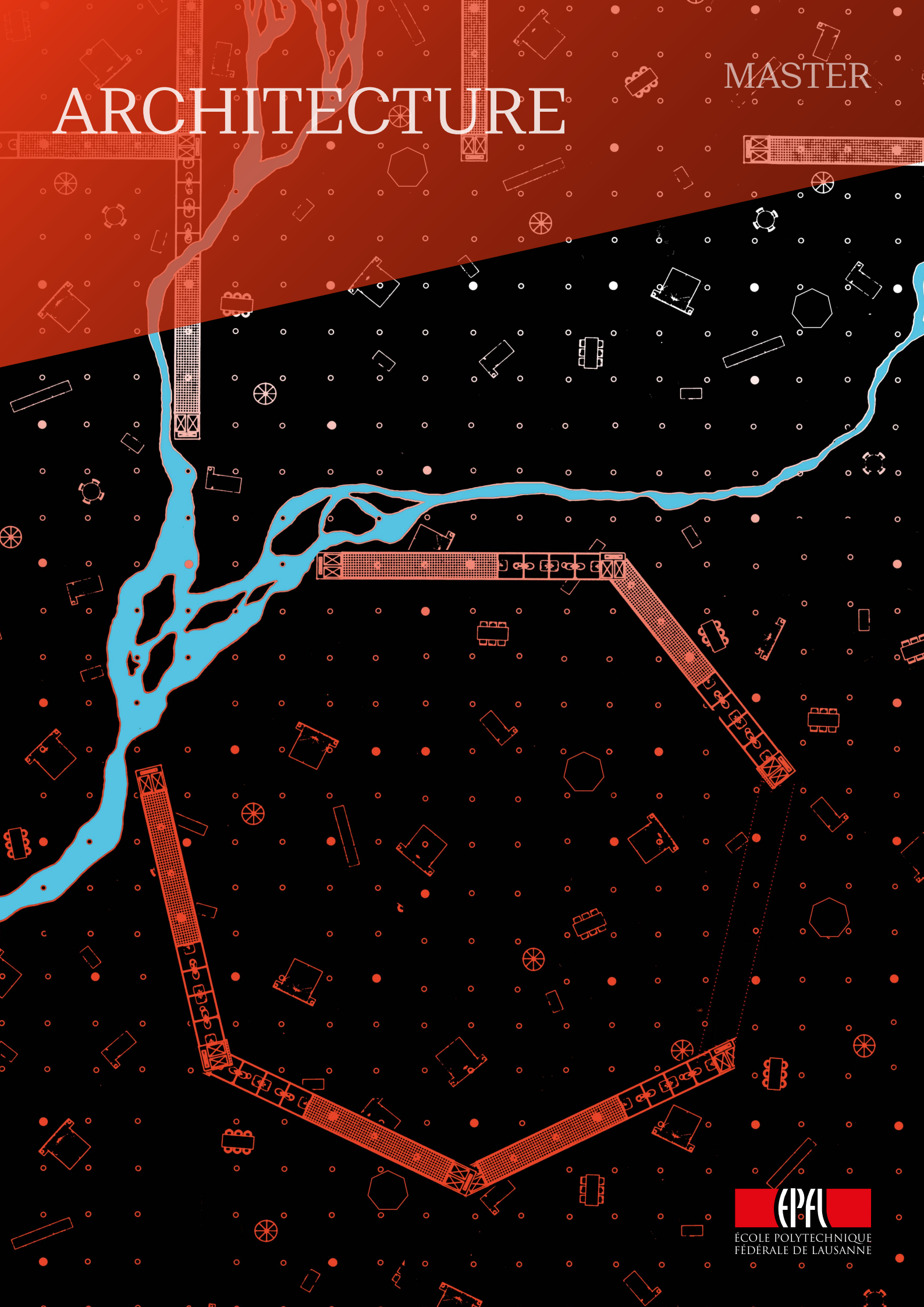


# ARCHITECTURE

MASTER



## Combining theory, practice and personal research

At Master's level, students follow an integrated teaching program encompassing current issues, architectural theory, discussions ranging across the full spectrum of design and construction – from design details through to urban planning, and guidance as they embark on their personal research. The course is structured around the production of a dissertation (where the focus is theoretical) and a Master's project, developed with a supervision panel selected by the student.





# Urbanising the Alps – Fiona Pia

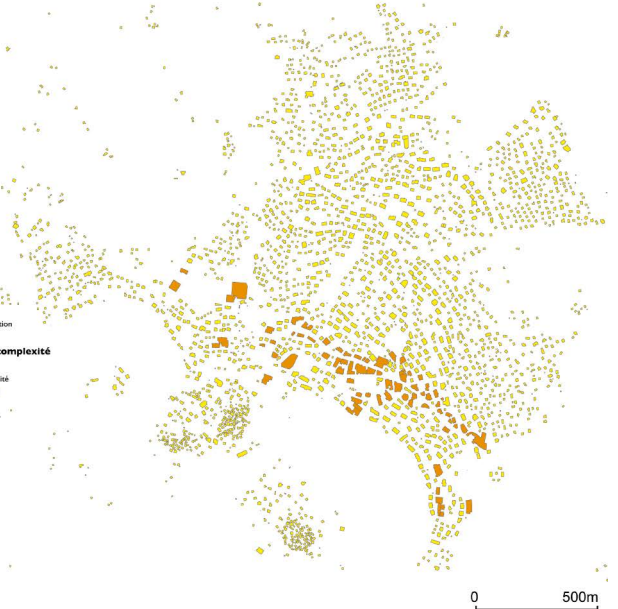
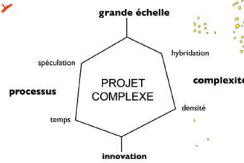
Switzerland's urban area is currently undergoing a process of transformation: the distinction between leisure resort in the mountains as merely a seasonal appendage for skiing purposes and the "real" city has become obsolete – as evidenced by the fact that many urban functions are relocating to the mountains

Voir la vidéo :



Nicolas Pierret :

« Pour moi, l'architecture représente un très bon compromis entre des études scientifiques, comme présentes sur le reste du campus, et quelque chose de peut-être plus artistique, plus esthétique. »



(including

convention

centers, theatres,

museums, educational

complexes, urban retail

businesses and permanent

residences). The multiplication

and intensity of communication and

transport modes are driving these new

trends; the mobility network is forging the

urban environments of city and mountain into a

single entity.

This research aims to construct new development strategies based on sustainable architectural and urbanist design paradigms, offering an innovative response to the complex project of combining functionalities and modal interfaces while renewing our understanding of the nature of altitude.

This research is undertaken within the ComplexDesign doctoral programme.

This programme is unique in Switzerland, examining the ways in which realising complex projects questions and engages knowledge and practical expertise specific to three areas – law (UNIFR – University of Fribourg), socio-economics (UNINE – University of Neuchâtel) and architecture (EPFL).

<http://complexdesign.epfl.ch>



# Urban Recharge Area Steffan Heath and Edouard Philippe

Mexico City and its millions of inhabitants are facing a massive overexploitation of the local water resources. The underground

aquifer that is the city's main source of supply is in a critical state of depletion with little hope of recharge.

To offset this shortfall the city needs to make better use of the available local resources such as wastewater and rainwater by creating new wastewater treatment plants (WWTPs).

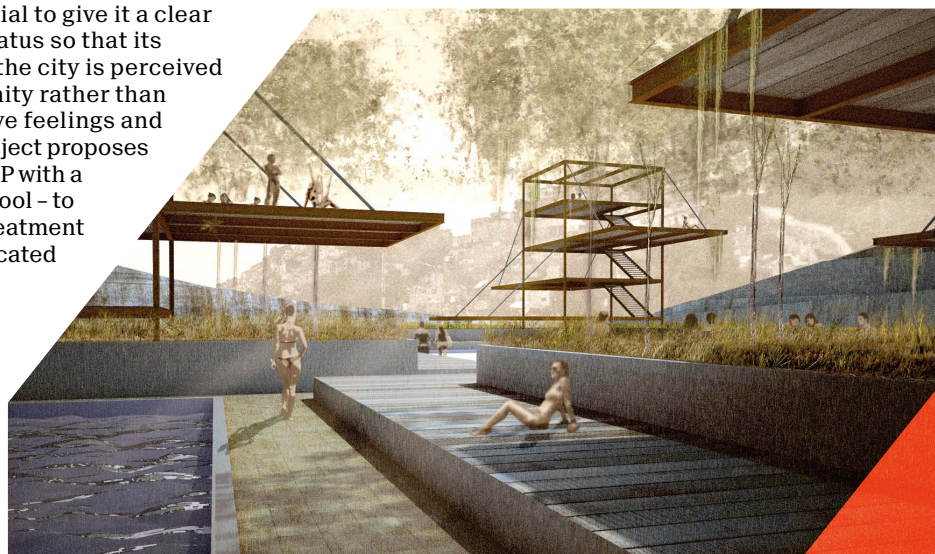
Yet when designing an infrastructure of this kind within a dense urban fabric it is essential to give it a clear positive status so that its presence in the city is perceived as an opportunity rather than arousing negative feelings and rejection. This project proposes to combine the WWTP with a municipal swimming pool – to demonstrate what the treatment process can achieve. Located to the west of the city, the project is set in an area where the ground below

the urban fabric is conducive to recharging the aquifer. Located downstream from a retention dam, the planned WWTP generates a green corridor in which the treated water is used to revitalise the river as it flows towards a park located 1.5 km further downstream. The swimming pool is the first element in this green corridor sequence.



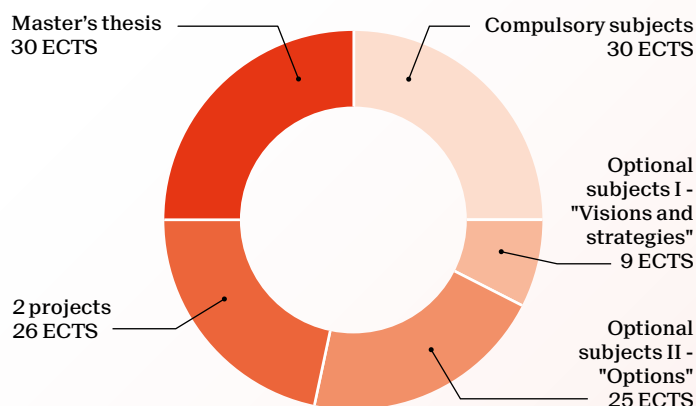
Adrien Alberti:  
"I have used algorithms inspired by nature and integrated them into a program that generates architecture."

Watch the video:



# Master of Science in ARCHITECTURE

2-year program - 120 ECTS



**Students must choose among one of the following orientations:**

- A Construction et béton
- B Logement collectif
- D Sauvegarde
- F Urban culture
- G Urban nature
- I Form for the City
- J Architecture et durabilité
- K Construction et bois
- L Artificial morphogenesis

An orientation is composed of mandatory courses and projects depending on its subject.

**Possibility to choose a 30 ECTS Minor in:**

- Développement territorial et urbanisme (DTU)
- Design Intégré, Architecture et Durabilité (IDEAS)

**Prerequisites for admission:**

- Bachelor in Architecture
- Practical experience of 12 months
- Excellent knowledge of French (C1)
- Present a portfolio (A4 size) including several projects made by the candidate in the course of his/her studies and possibly practice

## Career prospects

Studying architecture is the natural pathway towards a career as an architect, and it can also open up opportunities in many related professions – and in other, more unexpected areas, too: Architect – freelance or in a practice; Government official in a department dealing with the built environment (heritage conservation, regional/landscape planning, urban planning, etc.); Set designer (for shows and exhibitions); Project manager; Logistics specialist; Involvement in a humanitarian project; Real-estate manager; Real-estate expert; Researcher; Teacher; University lecturer; and Publisher.

School of Architecture, Civil and Environmental Engineering  
[master.epfl.ch/architecture](http://master.epfl.ch/architecture)  
 Contact: [secretariat.sar@epfl.ch](mailto:secretariat.sar@epfl.ch)

	Orientation											Credits
	A	B	D	F	G	I	J	K	L			
<b>Compulsory subjects</b>												<b>30</b>
De la structure à l'ornement												3
Superstudio												15
Énoncé théorique de master												6
SHS: introduction au projet												3
Projet SHS												3

<b>Optional subjects I - "Visions and strategies"</b>												<b>9</b>
Architecture and existing buildings												3
Architecture autonome												3
Cohérences aventureuses												3
L'architecture du paysage												3
Difficult double Double Histories												3
L'hyperréalité												3
Magma et principes												3
Projets métaphoriques: d'Archizoom à Koolhaas					D			I			L	3
Théorie de l'architecture VII					F							3

<b>Optional subjects II - "Options"</b>												<b>25</b>
<b>Teaching and research units</b>												
UE B: Critique architecturale			B									4
UE C: Architecture et archéologie				D								4
UE D: Territoire et société				B								4
UE E: Architecture et structures												4
UE F: Architecture et réhabilitation			B	D					I			4
UE H: Graphie												4
UE I: Analogue-Digital-Virtuel												4
UE J: Territoire et paysage						F	G					4
UE K: Architecture et durabilité: études de performances		A	B				G		J		L	4
UE L: Art and architecture: constructing the view I						F		I			L	4
UE M: Espace et lumière: le projet d'éclairage			B						J			4
UE N: Art and architecture: constructing the view II							G	I				4
UE O: Béton. Matière de construction		A										4
UE P: Béton. Construction et préfabrication		A										4
UE R: Introduction au BIM (Building Information Modeling)												4
UE U: Cartography							G				L	4
UE V: Architecture en bois										K		4
UE W: Lire le bâti												4

<b>Optional courses</b>												
Architecture et construction de la ville		B		F	G	I					L	3
Architecture et construction de la ville II		B		F	G	I						3
Art et histoire des jardins												3
Caractères architecturaux et urbanismes de l'Islam								I				3
Conception interactive des formes structurales										K		3
Confort et architecture: stratégies durables		B	D						J			3
Droit de l'architecte, approfondissements: la réalisation d'une construction												3
Economie spatiale et régionale						G						3
Energie solaire et architecture									J			3
Foncier, immobilier, logement		B										3
Habitat et développement urbain					F							3
Histoire de l'habitation		B										3
Histoire du béton		A										3
Introduction au BIM (Building Information Modeling)										K		3
Modélisation et représentation informatique I												3
Modélisation et représentation informatique II												3
Sciences de la ville					F	G						3
Sociologie urbaine		B			F							3
Structure et architecture		A										3
Structures complexes										K		3
Swiss Living Challenge												4
Théorie de l'espace												3
Théories et techniques du projet de sauvegarde		B	D						J			3
Urbanisme en Asie								I			L	3
Urbanisme et territoire						G	I				L	3
Ville africaine: introduction à la planification												3
Ville et mobilité					F							3
Visions et Utopies								I			L	3