Itinerary

Born 20/05/1984

Master degree in Architecture and Civil Engineering Master degree in Management Engineering

Professional experience:

iouis lecie

engineer-architect

portfolio 2013

	Freelance Architect at NEY&Partners, Brussel
9 - 2010	Environmental Designer at Franck BOUTTE, Paris
7 - 2008	Internships at Rudy RICCIOTTI, France
<u>matic skills:</u>	
hic:	Photoshop, Illustrator, Indesign Gimp, Inkscape
/ing:	AutoCAD, VectorWorks
	3DS, Rhino, Grasshopper, SketchUp, ACAD
	SCIA, DiaLUX, Ecotect
	Artlantis, VRay, Premiere, C & HTML Prog.
<u>uages:</u>	
ch:	mother tongue
sh, Italian :	fluent,

Louis LECLERT

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Louis LECLERT LAND

Passionated by architecture since childhood, I have drawn my professional course on the main feature of the profession: multidisciplinarity.

I thus started with an intense scientific education and then turn into an international double degree to graduate as Engineer-Architect, with honours.

I performed several internships at Rudy RICCIOTTI's architectural studio.

Then I started to work in environmental engineering to have a sharp practical knowledge of this fondamental issue. After that I develop my structural skills as independant designer at Ney & Partners in Brussels.

I continuously design for personal projects and competitions beside my main job.



Context	Scale	Program	Step	Structure	Topics	Projects chart
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			! 6 1			MUCEM Museum
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						Jean BOUIN Stadium
					$ \frac{1}{1} - $	Environmental Design
				$ \oint_{i} - \oint_{i} - \oint_{i} \int_{i}$		Transformation Duplex Belleville
						Slice of Life
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						Liège Guillemins
						The train house
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·						Eco-school
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						Grand Hornu
						Restoration of a former convent
·					- + - +	Shading creating structure
·						Ornithological perched shed
					<u> </u> - • • - <u> </u> - + <u> </u> + <u> </u>	Furniture Design
· · - • ·						Lighting Design
				$ \frac{1}{1}\frac{1}{1}\frac{1}{2}\frac{1}{1}$	$ \frac{1}{1} - \frac{1}{9} - \frac{1}{1} - \frac{1}{7} - \frac{1}{9} - \frac{1}{7} - \frac{1}{9}$	The ribbon bathroom
						Extension the link









Parametrical modelisation, Footbridge in Shenzhen, China, 2012

Bridge extension and transformation in Luxembourg, 2011







Structural design



Several projects All steps 2011 - 2012 Belgium Project teams: Between 1 & 12

2 people

Directly integrated into a structural engineering team, I am the the project architect during conception phases and meetings with clients.

I realise 3D models, mostly parametrical. I prepare 2D drawings, finish architectural drawings and supervise draftmen's work. I coordonate brochures, renderings and physical model realisations for competitions and design steps. I am responsible for budget and timing management on a few projects.

> Detailled design

> Structural calculation

> Architectural conception





Irradiation simulation - La Mie de Pain - Robain Gueysse arch.



Wind simulation in the entrance - ZAC Cardinet - Périphériques arch.











Environmental Design

Several projects All steps 2009 - 2010 France

Franck Boutté consultants Conception & Ingénierie

Project teams: Between 1 & 4 people

At the center of the interaction between architects, engineers, and clients, I developed environmental strategies. From the competition to the construction, I optimize morphological, architectural and technical choices to meet the environmental needs (HQE, H&E...) and energetical performance (RT2005, BBC...)

> Natural lighting simulations

- > Thermal calculations (standards and thermal simulations)
- > Renewable Energy dimensioning
- > Computed Fluid Dynamic simulation
- > Rainwater calculations









Image: State Stat

Tree-shaped pillars: MUCEM...

MUCEM Project PC - 2007 Museum Marseilles, Fr Surf. 13 000 m² UHPFRConcrete rudy ricciotti architecte diplômé par le gouvernement 17, bd. victor hugo 83150 bandol © 0494295261 fax 0494324525 nudyricciotti @ wanadoofr

Team: Ramon Otte Nicolas Dartigues Louis Leclert

The Museum of European & Mediteranean Civilisations, a huge mineral cube, shows a tree-shaped organic structure in Ultra High Performance Fiber Reinforced Concrete (UHPFRC)

In charge of the conception of the production method of the post-tensioned treeshaped UHPFRC pillars, I designed 3D-models, according to technical and architectural requirements.

> Design faithful to architectural concept

> Development, classification and evaluation of technical solutions

> Research of industrial partners











Tree-shaped pillars: ...International school

EIM Project EXE - 2008 School Manosque, Fr. Surf. 4000 m² Concrete **Team:** JL Guedj Louis Leclert

rudy ricciotti architecte diplômé

par le gouvernement 17, bd. victor hugo 83150 bandol © 04 94 29 52 61 fax 04 94 32 45 25

The Manosque International School is a school complex built to educate ITER center searchers' children.

Based on a Roman-city plan, the school is surrounded by concrete strips, and organised around atriums bordered by tree-shaped concrete pillars.

> 3D-design of new tree-shaped pillars according to observations on the prototype and molds already realised, in order to achieve an optimal result.

> Design of final production documents









Jean Boui	n Stadium
uhpfrc roof o	conception

Project Jean Bouin APS - 2008 Stadium Paris Surf. 4500 m² UHPFRC

17. bd. victor hug 83150 bandol © 04 94 29 52 61 fax 04 94 32 45 25 Project team:

rudy ricciotti

architecte diplôn

Christ. Kayser Romain Ricciotti G. Lamoureux Louis Leclert

The new restructuration of the Jean BOUIN stadium, in Paris, offer 20.000 covered seats, will be in a UPFRConcrete lace.

Integrated into the engineering team in charge of the roof design, I took part in the technical developments, in direct relation with the architect.

> Architectural concept fidelity

- > Implementation
- > Waterproofness
- > Structure
- > Security











Transformation **Belleville Duplex**



Two abandonned floors of a nearly collapsing building are to be transformed. The aim is to convert them into a 70 sq. meter duplex of high value for renting.

The proposal is to take advantage of the small ceiling height of the lower level to place the entance, bedrooms and bathroom, while the upper level is fully open and dedicated to living spaces.

> Heavy transformation

- > Coordination with structure work ongoing
- > Low budget and short timming

Upper Level















Lower Level







Slice of Life



Project Nat. Talent
Competition - 2010Project team:Housing
New Orleans (US)Louis Leclert
Benoit NihoulSurf. 80 m²
WoodFinalist

The Hurricane Katrina devasted a large part of the Broadmoor neighborhood, in New Orleans. To rehouse the community, especially the elderlies, the Salvatory Army plans elevated, hurricane-resistant, ADA-compliant, LEED platinum, dwellings for less than 100 000\$.

The design takes advantage of constrains. The wind produces energy for inhabitants, the ADA-ramp slices the volume in twice, bringing air, light and physical connections. The shape is a contemporary interpretation of the traditional shotgun house typology, offering a wide range of spaces: porch, outdoor living space, protected garden.











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RD

Fertile District

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Europan11 Competition - 2011 Urban design Rotterdam (NL) Surf. 30000 m² Concrete

europan 11

n11Project team:tition - 2011J-C Puechblanctesign
am (NL)E. Quertinmont
Louis Leclert0000 m²P

Directly connected to Rotterdam Center, and anchored in a countryscape, this lot to remodel raises the problematic of living on the edge of a city.

In a developed country facing urban sprawl and negative food balance, this site offers the opportunity to develop urban farming. Hydroponic fruit and vegetables production is suspended into greenhouses covering alleys and gardens between rows of high value dwellings. Farming offers greenscape, activity and protection to housings, while inhabitants are naturally sensibilized to the production process, seasons, and indirectly claim a reduction in the pesticides use. An old supermarket is displaced to offer the city a new public square, connected to cultural and commercial facilities.















-☆-

View towards housings



Facade on the rambla



Section



Project Europan10 Competition - 2009 Urban design Liège (Be) Surf. 50000 m² Concrete Project team: J-C Puechblanc E. Quertinmont Salih Topal Louis Leclert

With the construction of the new Guillemins railstation, by Calatrava, the disused neighborhood had to be redisigned. The program integrates collective housing and a Design Center.

The project open up the islet and set up the Design Center in the heart of the site, creating an attractive and calm square, giving a new identity to the site. Ecological collective housing is organised in around pedestrian paths and parks.

- > Urban conception
- > 3D modelling
- > Sections



Urban section

















The train House



Project InstantHouseProject team:Competition - 2009Louis LeclertHousingLouis LeclertMilano (It)Surf. 2*20 m²WoodLouis Leclert

The organisation of the 2015 Universal Exhibition in Milano has to be perfect. To accomodate young guests, temporary structures have to be designed.

The project is based on modularity. The program is divided in blocks which can be connected. This system allows prefabrication and diversity, achieving a high level of spacial quality.

- > Functional design
- > Structural design
- > Environmental design
- > 3D Model & renderings
- > Physical Model sc. 1:20
- > Graphic & text documents





Modularity

at each scale

Natural ventilation & light



View from the entry.



Initial state



Projectual sketch





Grasshopper modelling





Plan









craftsmen is innovative as well as respectful of the patrimonial roof structure, the last visible design of G. Giordano, a great figure of wooden structures.

Enhancement by contrast:

- > Parametric Design (Grasshopper)
- > Organic Architecture
- > Bright and translucent Polycarbonate





Final Study Master2 - 2009 Workplaces Torino, It. Surf. 4000 m² Plastic

Team: Louis Leclert Relator: Clara Bertolini







Shadow course

sc. 1:500 model

Artificial lighting studies

COMPACT FLUORESCENT LAMP TC-L 55W 2G11 3000 K







125 250 375 500 625 750 875

Eco-designed school Torino

Techno. Project Master2 - 2009 Education Surf. 4500 m² Wood

ojectProject team:009Lorenza BiancoAnna ChiambrettoLouis Leclert

Best score

This school project is well-designed and well-equiped with several technologies aiming to lower its ecological footprint: solar & wind-induced masterplan, photovoltaic and thermic solar energy, rainwater recycling, dry construction, natural ventilation...

- > Modular prefab wood structure design
- > Details (sc. 1/20 & 1/5)
- > Lights study (DiaLUX)

1000 [lx]

- > Ventilation system design
- > Images (3D modeling, rendering, finishing)





> Study of shadows





Terken: an urban peninsula

Final Project Master2 - 2009 Offices Surf. 40000 m² Urbanism



Team: Jérôme Bernard Raph. Cuich-Pilette Louis Leclert

Best score

In Lille metropolitan area, *Reichen & Robert* converts an industrial waste land into a green mixed-use district, centered on 2 large parks bording a canal. Recently abandoned, the Terken brewery is not included into this project. Its conversion into a 40000m² headquarter, organised in 6 poles, a reception and an auditorium has to integrate it into the urban project. > Extension of the parc by a progressive structuration to integrate existing collective housing. > Reinforcement of the triangular shape > Densification of the site by bridge-buildings linking poles of the headquarter

> Access by the base of the triangle, with a large landscaped parking lot.

Conversion into an urban peninsula, offering to the headquarters exceptional facades on the park and the canal.



Anchorage in the existing project



1:500 model: the bow



1:500 model: the city side



Urban 3D model





Facades toward the court (up), and the canal (down)





Third level: the main circulation



malt-house: The urban lighthouse

Final Project Master2 - 2009 Offices Surf. 4000 m² Steel

Lille Métropole

Team: Louis Leclert

Best score

Former corn-stock building, the malthouse becomes a major element of the urban project, by its position at the center of the circulations, its facades on the canal and the central courtyard. As a true 3D-palimpsest, its cubic shape comes from 4 structural elements.

> Distinction of structural blocks => nat. light

> Substitution of silo by a new volume

> Valorisation of pyramid ceiling (G level): o Acoustic reflectors in the auditorium o Light scenography in the showroom

> > Nat. Lighting study > Acoustic study (auditorium) > details (sc. 1:10)













В View to the restaurant from the old roo





Scolar workshop & GRAND-HORNU accomodation

MAC's Project Master1 - 2008 MAC's, Mons, Be Workshop & acc. Surf. 2000 m² Concrete

Team:

Louis Leclert

In order to offer an art initiative workshop for groups of pupils, the Contemporary Art Museum (MAC's) projects on its site, which is a former mining complex, 3 workplaces, an exhibition room and a dormitory/retaurant center.

A/ Art workplaces: 750m²

> Insertion in the shape of the curved building in the North West

- > New green facade on the park
- > The created fault extends the visit course

B/ Dormitories & Restaurant: 1250m²

- > close to the wound of the site
- > a V-plan offering a courtyard
- > Curved metal facade: former railpaths



B. \$ C.Det



The fabric roof accompanies the mouvement of visitors coming from the fault (in the right).



GRAND-HORNU The Cathedral: from factory to art

MAC's Project Master1 - 2008 MAC's, Mons, Be Museum - Concert Surf. 1500 m² Fabric + Steel

Team:

Louis Leclert

The new roof on this former machinery production plant aims to protect the building as a trace of history, and to convert it into an exhibition and concert place.

> > take down > model (sc. 1:50)

> Continuity of the visit course > Entrance in high ground, stage > the metal structure reminds one of the industrial past

> the light fabric roof contrasts with the heavy masonry







Ground level: The workshop in contact with the courtyard, the kitchen.

First floor: Living room & first room.

-

CHAMBRE 1

IDE SUR ATELIER

Workshop

GRAND-HORNU

& accomodation

MAC's Project Master1 - 2008 MAC's, Mons, Be Workshop & acc. Surf. 300 m²

VIDE SUR

SALON

SALON

Team:

Louis Leclert

This corner house of the XIXth century industrial housing complex was abandoned. A conversion into a workplace and accomodation for 2 independant artists is to be designed.

> Division of the ground level in 2 parts:

- workplaces (public)
- kitchen (private)

> Workplace 1 with high ceiling height (Northern light)

- > Workplace 2 opens onto the courtyard
- > Large communication
- > Rest rooms south-oriented (garden)







CAD Design

Othographic photo

3D laser measures Identification of materials & pathologies

Restoration of a former convent

Restoration Project Master2 - 2009 Mons, Fr. Library Surf. 1500 m² Stone

ct Analysis Team: 6 students Design Team: Louis Leclert

Best score

This former convent has been damaged by its usage as a furniture store. The facade has been disfigured by the adding of a vehicle door. After a careful analysis of materials and pathologies, the intervention had to present aesthetic and structural solutions regarding the legacy of the facade.

The conversion as a multimedia library will restore the destroyed windows. A new rectangular, actual door will be shaped. A complex of contemporary-shaped corten-steel railings will protect new aluminium windows, recalling old brown windows and expressing the intervention. > Take down with 3D LASER SCAN

- > Ortho-photo
- > analysis of pathologies
- > Proposition of materials' restoration
- > Proposition architectural project
- > Details sc. 1:2





LATTES PARE SOLEIL

Planches essence locale (mélèze ou Douglass) traitement thermique : rétification (anti-pourrissement) ou lasure non toxique.

STRUCTURE PORTEUSE - BOIS.

Bastaing 180x65 en essence locale (mélèze ou Douglass). Traitement fongicide et lasure non toxiques (gamme Biofa).

PLOT BETON

Plot auto porteur et auto stable (poids approx. 1,8 tonne). Béton moulé et vibré avec ciment et sable blanc. (possibilité de diviser le plot en 2 ou 4 parties)

RENVOI DE FORCE Câbles, ridoir et chape en acier inoxydable

CHASSIS SUPPORT Acier galvanisé.

LIAISONS ET ARTICULATIONS METALLIQUES

Acier galvanisé, axes laiton, boulonnerie inoxydable OU zinguée.

Shading creating structure



Transversal Project Team:

Master1 - 2007 Marseilles, Fr. Urban structure Surf. 30 m² Wood + metal

L. Leclert (leader) M. Gioan, B. Desseau, F. Magnier, A. Wojdyla, A Lagarde

This project, designed by Yannick Le Guinner and his association, is to be validated.

- > Team leader
- > To validate choices of materials
- > To proportion different structural elements
- > Help to design the concrete base
- > Study for the settlement on site

















Ornithological perched shed

Wood Project Master1 - 2008 Mons, Be. Shed Surf. 12 m² Wood



Team: Louis Leclert

This small project of an ornithological shed (bed, desk and library) is inserted in an existing tree without damaging it. The cantilevered porticos are linked to 2 beams leaning on branches.

> Take down of a tree (Ortho-photo)

> Architectural insertion in the tree

> Conception and proportion of the structure

> Details sc. 1:5







In transport configuration



Optmised shape for material enconomy.



Multi-layered composition



Working configiration



Design Project Master1 - 2008 Architect transportable table aluminium Team: Louis Leclert

Jérôme Bernard Yohan Couvreur

The challenge was to design a light transportable table for architects to work on building site.

- > Recycled aluminium structure
- > Foldable table
- > Multifuctional surface
- > Can be used as board
- > Optimised shape to save material







Bathroom The ribbon



Private Project Design consultancy Valenciennes, Fr. Design consultancy Valenciennes, Fr. Design consultance Course Lectert Sathroom Construction: Plaster, ceramic tiles

In this family home, proprietaries wanted to remodel their bathroom to obtain a more comfortable and efficient space, by replacing the bath by a shower, and integrating clothes wash machines.

The proposal was a continuous ribbon which develops along the wals and is fitted to host each activity: hight buffet for stand-up washing, a bench to change clothes, then become the shower ground and wall, masquing wash machines.

> Continuum> Integration of constrains







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Design:



Louis Leclert Snake Library 2011 Integrated library Multiply wood

Interior design

The occupants of this small parisian flat wants to optomize space in an angle to store books. > Fitted to the tricky geometry > Integrated lighting





Design competition 2009 Coffee Cup Ceramic + Bamboo

>Bamboo ring as foot >Lateral grips for digits



Furniture design

Personal Project 2009 Living room table MDF - glass

Design: Louis Leclert Construction:

Louis Leclert

For a small apartment the young client wished a multifunctional table to receive guests.

> Rotative glass panel

> Integrated storage place



Colombo Compe-Design: Louis Leclert tition 2011 Door handle Stainless steel

The goal was to design an innovative handle to renew the offer of Colombo.

The proposed shape twists to fit the hand movement.



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Q MAAAA





Personal Project 2008 Night table Wood (MDF) Design & Construction: Louis Leclert

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> Integrated light & storage> Optimised shape to savematerial & fit in the room





Personal Project 2010 Night table Raw wood and steel Design & Construction: Louis Leclert

> Raw materials

> Re-used materials



Lighting design

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> Personal Project 2011 Bedside Light Steel - Plastic LED

Design: Louis Leclert

Construction:

Louis Leclert

For a small bedroom, space optimisation is reached by combining functions. The bedside light is designed to require no ground space and bring comforts by hanging books.

> Indirect lighting> Direct spot lighting> Integrated book suspension



Personal Project 2008 suspended light Wood + Paper Design & Construction:

Louis Leclert

> Diffusive light> Lighting effects> Recycled materials





Interior design The tongue

Personal Project 2010 Library, buffet, table and seats MDF + OSB

Design: Louis Leclert Construction: Louis Leclert

The design of the main room of this small flat has to offer the possibility of both working and living, hosting 1 to 7 guests. Regarding its small surface, it has to be a unique, compact and modular project.

To be a component of the interior architecture rather than just a casual furniture, a great integration has been aimed. The form roots into the geometry oh the flat itself, characterised by rectangular interpenetrating spaces.

The project covers a major part of the blind wall. Library in its upper part, it is wider in its lower part to form a buffet. In its middle leans a rolling table, extendable from 1.3m to 2.5m. Triangular stackable prismatic stools can be stored in the buffet under the table.

This configuration articulates the bedroom & the kitchen.













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B-B'





Private Project Extension Soignies, Be. Living, Kitchen Surf. 81 m² Masonry, Wood

Design team:

Louis Leclert Anna Chiambretto

Benoît Nihoul

The client own two identical, attached row-houses. It's aim is to create an extension which links both existing houses, while leaving the possibility to divide again in two houses in the future.

The proposal was large and unique volume, widely opened to the garden. Luminous and spacious, it is the naw main living space of the home, linking the two existing row-houses.

> Openness to the garden

- > Connection of two existing houses
- > Possibility of space division in the future









