

EXPRESSIONS OF INTEREST

ARCHITECTURAL DESIGN COMPETITION FOR
THE NEW BUILDING FOR THE FACULTY OF ARCHITECTURE, BUILDING AND PLANNING

COMPANY:
PRAI (PEARL RIVER ARCHITECTURE DESIGNING INSTITUTE)

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PRAI (PEARL RIVER ARCHITECTURE DESIGNING INSTITUTE) WAS FOUNDED IN 1979. THE INSTITUTE IS BASED IN GUANGZHOU, CHINA. OUR INSTITUTE HAS ABOUT 200 ARCHITECTS AND ENGINEERS. WE HAVE FINISHED A LOT OF PROJECTS IN MANY CITIES SUCH AS GUANGZHOU, SHANGHAI, BEIJING, MACAO, ETC. SOME OF WHICH ARE THE MOST IMPORTANT PROJECTS IN THE CITY. WE SPECIALIZE IN DESIGNING OPERA, LIBRARY, HABITATION, STADIUM, ETC. IN THESE 30 YEARS, THE PRAI HAS DELIVERED A TOTALITY OF 10 MILLION SQ.M OF BUILDINGS.

WE CONSIDER A BUILDING AS A COMPLEX SYSTEM, NOT JUST THE SHAPE, NOR THE TEXTURE OF THE ENVELOPE. A COMPLEX SYSTEM IS A SYSTEM WHICH IS CONTROLLED BY SOME SIMPLE RULES, AND THE CONNECTIONS BETWEEN THE "CELLS" ARE COMPLEX. WE ATTEMPT TO FIND THE RULES THROUGH THE REPRESENTATION, THE SHAPE, THE FORM OF THE BUILDING SHOULD BE REGULAR, EVEN IF IT LOOKS LIKE IRREGULAR. THE LOGIC OF THE CONSTRUCTION IS THE KEY ELEMENT OF OUR DESIGN.

OUR INSTITUTE HAS THE CHANCE TO COOPERATE WITH MANY OTHER ARCHITECTS IN SOME GRAND PROJECTS. FOR EXAMPLE, WE ARE COOPERATING WITH ZAHA HADID IN THE PROJECT OPERA OF GUANGZHOU WHICH IS OUTSTANDING IN ITS FORM AND INTERIOR SPACE. WE ARE QUITE EXPERIENCED IN WORKING WITH THE OTHER STUDIO AND DELIVER THE PROJECT WHICH IS DIFFICULT IN CONSTRUCTION.



PROJECT:
QINTAI OPERA HOUSE
LOCATION:
WUHAN, CHINA
COMPLETION DATE:
2010
TOTAL FLOOR AREA:
105000 M²

PROJECT:
ZHONGSHAN BATTLESHIP MUSEUM
LOCATION:
WUHAN, CHINA
COMPLETION DATE:
2009
TOTAL FLOOR AREA:
10500 M²



PROJECT:
CHANGCHUN OPERA HOUSE
LOCATION:
CHANGCHUN, CHINA
COMPLETION DATE:
2012
TOTAL FLOOR AREA:
30000 M²

PROJECT:
ASIA-PACIFIC SUNSHINE OFFICE TOWER
LOCATION:
GUANGZHOU, CHINA
COMPLETION DATE:
2012
TOTAL FLOOR AREA:
60000 M²



PROJECT:
MACAO MULTIFUNCTIONAL STADIUM
LOCATION:
MACAO, CHINA
COMPLETION DATE:
2005
TOTAL FLOOR AREA:
68000 M²

PROJECT:
ZHONGZHOU PLAZA
LOCATION:
GUANGZHOU, CHINA
COMPLETION DATE:
2006
TOTAL FLOOR AREA:
140000 M²



PROJECT:
JINZHOU MUSIC CENTRE
LOCATION:
DALIAN, CHINA
COMPLETION DATE:
2008
TOTAL FLOOR AREA:
10000 M²

PROJECT:
BAIYUN INTERNATIONAL CONFERENCE CENTRE
LOCATION:
GUANGZHOU, CHINA
COMPLETION DATE:
2006
TOTAL FLOOR AREA:
210000 M²



PROJECT:
OFFICE BUILDING OF THE GOVERNMENT OF NANSHA
LOCATION:
GUANGZHOU, CHINA
COMPLETION DATE:
2010
TOTAL FLOOR AREA:
5000 M²

PROJECT:
MUSEUM OF THE PALACE NANYUE
LOCATION:
GUANGZHOU, CHINA
COMPLETION DATE:
2008
TOTAL FLOOR AREA:
32200 M²



PROJECT:
CRICKET STADIUM FOR THE 16TH ASIAN GAMES
LOCATION:
GUANGZHOU, CHINA
COMPLETION DATE:
2010
TOTAL FLOOR AREA:
5000 M²

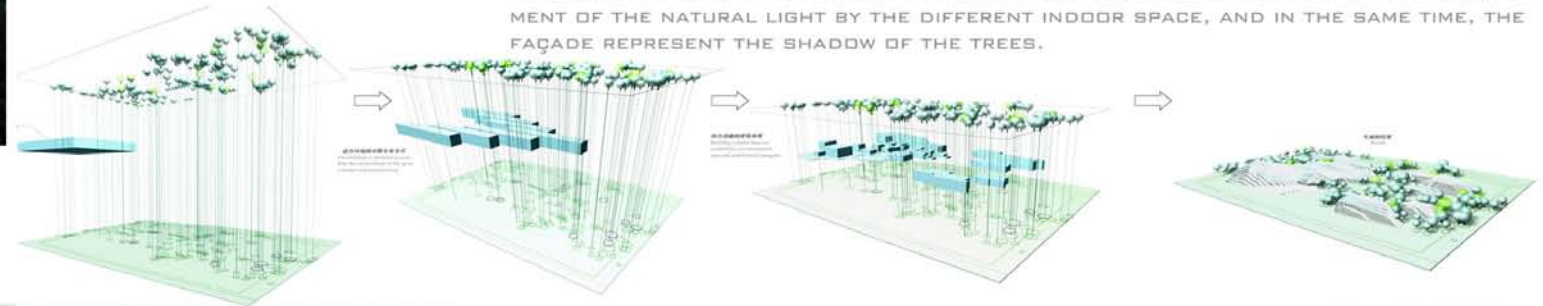


PROJECT:
TRAIN STATION OF SUZHOU
LOCATION:
SUZHOU, CHINA
COMPLETION DATE:
2010
TOTAL FLOOR AREA:
8000 M²

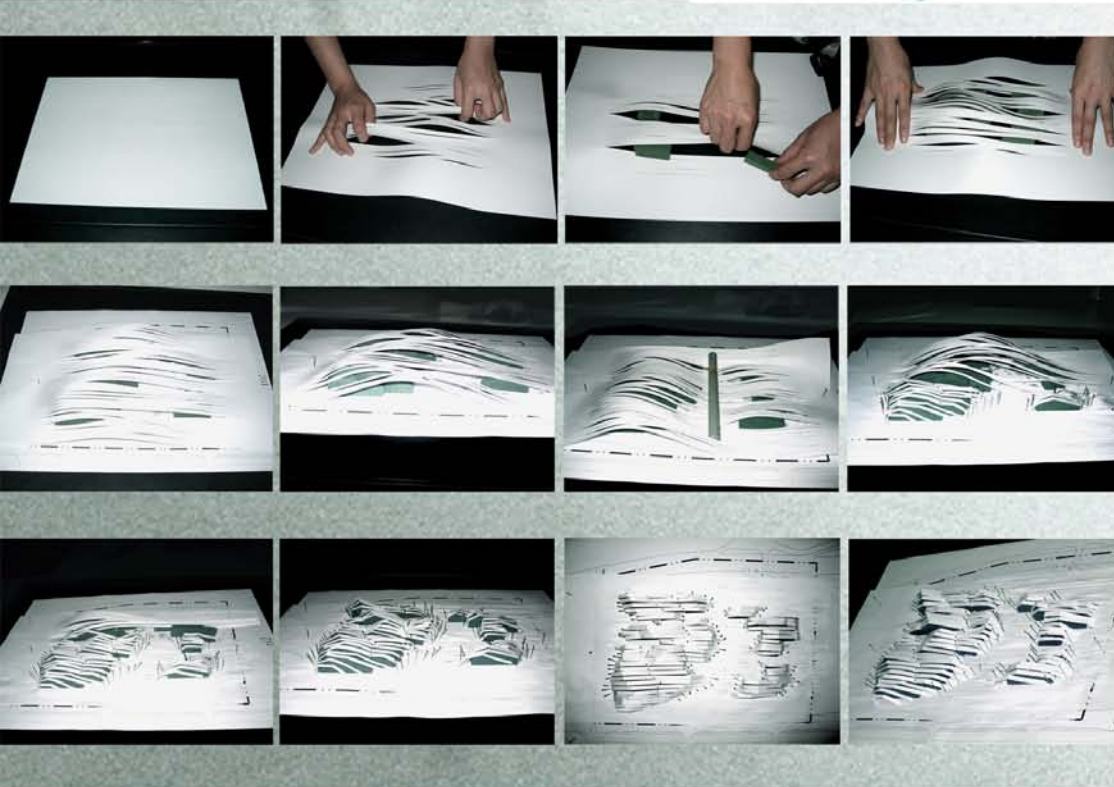


PROJECT:
GUANGZHOU BAIYUN INTERNA-
TIONAL CONFERENCE CENTRE
LOCATION:
GUANGZHOU, CHINA

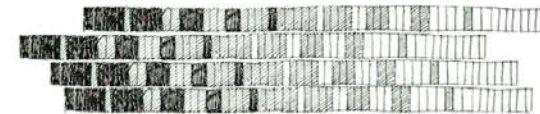
COMPETITION DATE:
2006
TOTAL FLOOR AREA:
214120 M²



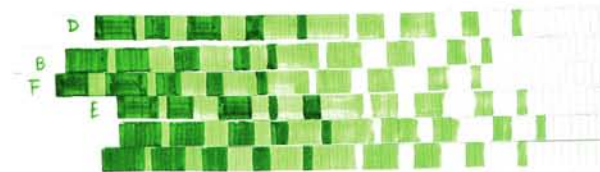
A BUILDING MUST RESPECT THE ENVIRONMENT EXISTING, IN THE PROJECT BAIYUN CONFERENCE CENTRE, WE ATTEMPT TO SAVE THE TREES IN THE SITE AS MUCH AS POSSIBLE, AND REPRESENT THE NATURE WITH OUR DESIGN. SINCE THE TOTAL FLOOR AREA OF THE CENTRE IS 210,000M², IT'S QUITE A DIFFICULT TO REACH THE ARMS ABOVE. OUR CHOICE IS TO BREAK THE VOLUME OF THE BUILDING INTO A SERIES OF "FUNCTIONAL BOXES", AND DISTRIBUTE THEM ONTO THE GROUND WITHOUT TREES. TO ORGANIZE THE "BOXES" TOGETHER, WE USED A LOT OF BANDS UNDULATORY COVER THEM, THESE BANDS ALSO COVER SOME OF THE TREES BESIDES THE "BOXES", IN THIS WAY, WE CAN GET A CONTINUE LANDSCAPE FROM EXTERIOR TO INTERIOR. THESE BANDS REPRESENTING THE MOUNTAINS BAIYUN NEAR THE SITE IN THE SAME TIME. THE TEXTURE OF THE FAÇADE SIMULATED THE SHADOWS OF THE TREES. WE USE THREE KINDS OF MATERIALS WHICH IS ARRANGED CORRESPOND TO THREE ARRAY. IN THIS WAY, THE FAÇADE IS CHANGING GRADATIONALLY FROM OPAQUE TO TRANSPARENCY ACCORDING TO THE REQUIREMENT OF THE NATURAL LIGHT BY THE DIFFERENT INDOOR SPACE, AND IN THE SAME TIME, THE FAÇADE REPRESENT THE SHADOW OF THE TREES.



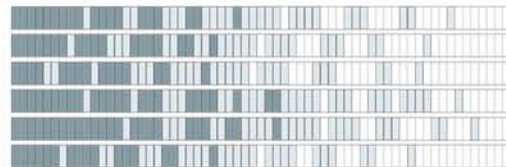
A SIMULATION OF SHADOW PRESENTED BY GRADATIONAL ARRAY AND COMBINATION OF TRANSLUCENT GLASS



ALUMINIUM PANEL 5 4 3 2 1
TRANSLUCENT GLASS 7 2 3 4 5 4 3 2 1
TRANSPARENCY GLASS 1 2 3 4 5



A COMBINATION OF DIFFERENT ARRAY

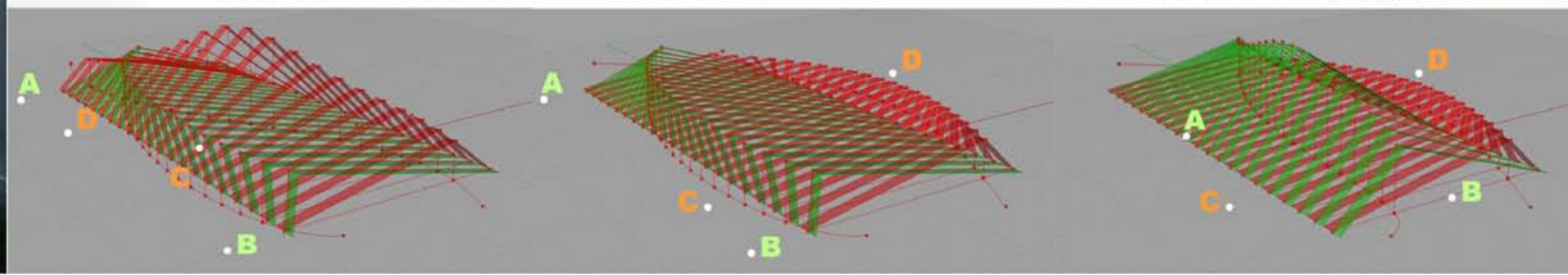


SHADOW ON THE GROUND





COMPETITION:
MUSEUM OF PALACE
NANYUE
LOCATION:
GUANGZHOU, CHINA
DATE:
2008.11
TOTAL FLOOR AREA:
32200 M²



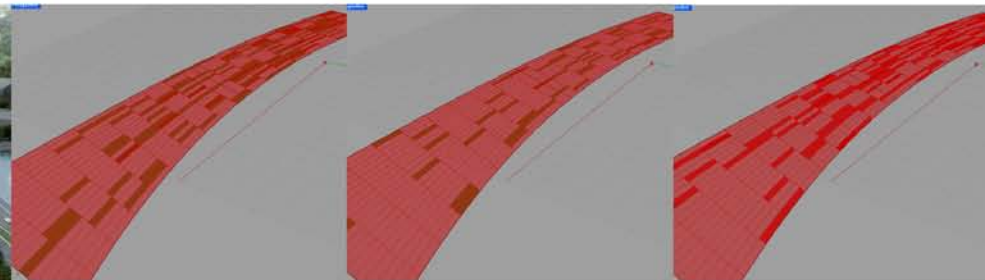
PARAMETRIC DESIGN

AS WE MENTIONED IN THE INTRODUCTION, CURRENTLY THE PARAMETRIC DESIGN IS THE MOST IMPORTANT METHOD FOR OUR WORKS. WE USED TO USE RHINO+RHINOSCRIPTING+GRASSHOPPER AS THE SOFTWARE FOR CONCEPTUAL WORKS. AND WE ALSO USE MICROSTATION+GENRATIVE COMPONENTS TO DEVELOP THE PROJECTS. WE ARE USING THEM TO FINDING FORMS, CREATING THE TEXTURE OF FAÇADE, AND WE ARE TRYING TO USE THEM TO ORGANIZE THE ARCHITECTURE SYSTEM.

IN THE EXAMPLE ABOVE, WE DID THE WORK OF FORM FINDING OF A ROOF IN THE PROJECT OF MUSEUM OF PALACE NANYUE WITH THE PARAMETRIC METHOD. WE USED 4 POINTS TO

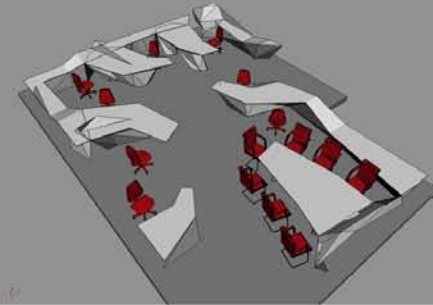
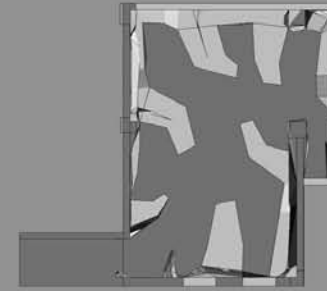
CONTROL TWO SERIES OF UNDULATORY BANDS, POINT A AND B CONTROLS THE GREEN SERIES, SO POINT C AND D CONTROLS THE RED ONE. THE POSITION OF THE POINT DETERMINE THE POSITION OF THE WAVE CREST AND ITS HIGHT.TROL TWO SERIES OF UNDULATORY BANDS, POINT A AND B CONTROLS THE GREEN SERIES, SO POINT C AND D CONTROLS THE RED ONE. THE POSITION OF THE POINT DETERMINE THE POSITION OF THE WAVE CREST AND ITS HIGHT.

AND IN THE EXAMPLE BELOW, WE ARE USING THE RHINOSCRIPTING TO CREATE THE TEXTURE OF THE FAÇADE OF THE CRICKET STADIUM WHICH IS COMPOSED BY A LOTS OF RANDOM RIBBON ALONG THE SURFACE.



PROJECT:
CRICKET STADIUM FOR
THE 16TH ASIAN GAMES
LOCATION:
GUANGZHOU, CHINA
COMPLETION DATE:
2009
TOTAL FLOOR AREA:
5000 M²





PROJECT:
INTERIOR OF OUR
ARCHITECTURE
STUDIO AT 12 FLOOR
LOCATION:
GUANGZHOU, CHINA
COMPLETION DATE:
2006
TOTAL FLOOR AREA:
60 M²

WORK SPACE
WHERE THE IDEA COMES FROM

WE MUST REINVENTED THE OFFICE SPACE TO MEET THE REQUIREMENT OF THE DESIGNERS, ARCHITECTURES WHO ARE CREATING SOMETHING, THE ENVIRONMENT INFLUENCE HOW THEY ARE WORKING, THAT'S WHERE THE IDEAS COME FROM.

COMPARE TO THE "PROCESS WORK", TO WHICH THE WORK PROCEDURE IS IMPORTANT, THE "CREATING WORK" NEEDS THE SPIRIT OF COOPERATION, INITIATIVE AND ADVENTURE. THESE MUST BE ENCOURAGED BY THE WORKING SPACE.

THERE IS NO CLEARLY BORDERLINE BETWEEN THE CEILING, THE WALL, THE DESK AND THE BED. THEY HAVE BEEN MERGED INTO ONE CONTINUE SURFACE WHICH IS COMPOSED BY TRIANGLES. THE STUDIO LOOKS LIKE A "CAVE". THE DESIGN OF WORKING SPACE CAN REMOVE THE BOUNDARIES OF THE AREAS OF EACH STAFF, AND THERE IS NO UNITIVE ORIENTATION WHICH MAKE THE OFFICE LOOKS BORING. THE COMMUNICATION BETWEEN THE ARCHITECTS ARE ACTIVE HERE, THE STUDIO JUST LIKE A BRAIN-STORM ROOM.

THE STUDY OF THE
POSSIBILITIES TO
JOINT THE DESKS
AND THE SPACE, THE
DIFFERENT WAYS OF
DISPOSAL CONTAIN
DIFFERENT NUMBERS
OF STAFF INSIDE.

**THE PROCESS OF
CONSTRUCTION**





PROJECT:
PROJECT STUDY
THE LIBRARY OF THE
UNIVERSITY XINHUA

LOCATION:
HEFEI, CHINA

DATE:
2007

TOTAL FLOOR AREA:
10000 M²

IN THE PROJECT STUDYING OF THE LIBRARY OF THE UNIVERSITY XINHUA, WE HAVE DESIGNED A NATURE ROOF SUN-SHADE SYSTEM. WE FIND THAT THE GROWTH CYCLE OF THE LEAVES MEETS WELL WITH THE SUN-SHADE REQUIREMENT OF HUMAN ACTIVITIES. SO WE HAVE TRIED TO DESIGN A ROOF GARDEN, THE TREES WORK TOGETHER WITH THE SKYLIGHT BUILDUP A NATURE CHANGE SYSTEM. THIS SYSTEM WORKS BETTER IN THE MIDDLE-LATITUDE AREA, AND WE CAN CHOSE THE PLANT ACCORDING TO THE REGION. THREE PARAMETERS ARE IMPORTANT, THE HEIGHT OF THE PLANT(H), THE RADIUS OF THE TREE CROWN(L), AND THE DISTANCE BETWEEN THE TREES(D).



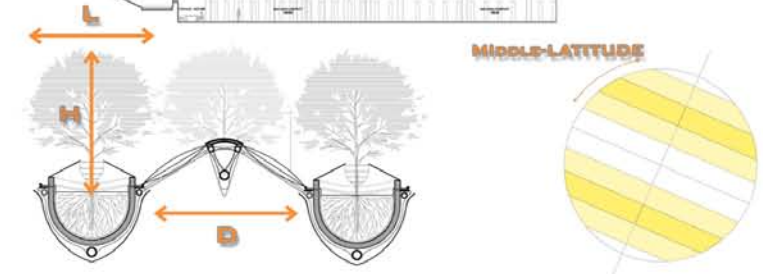
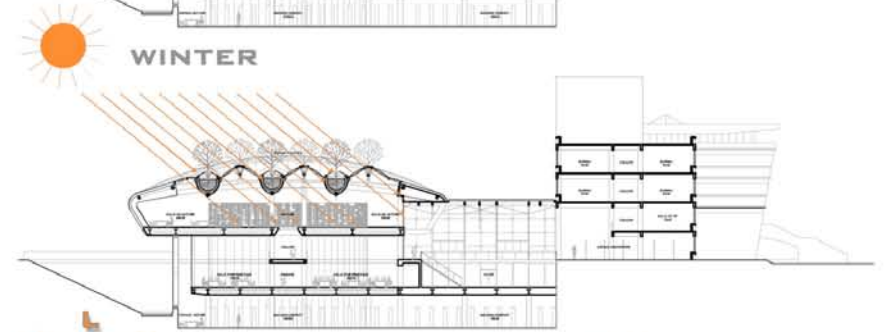
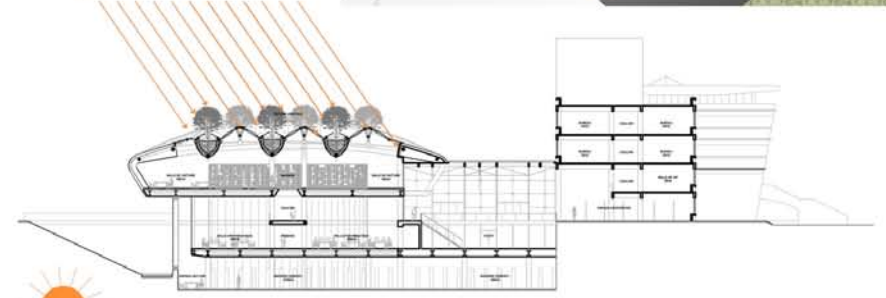
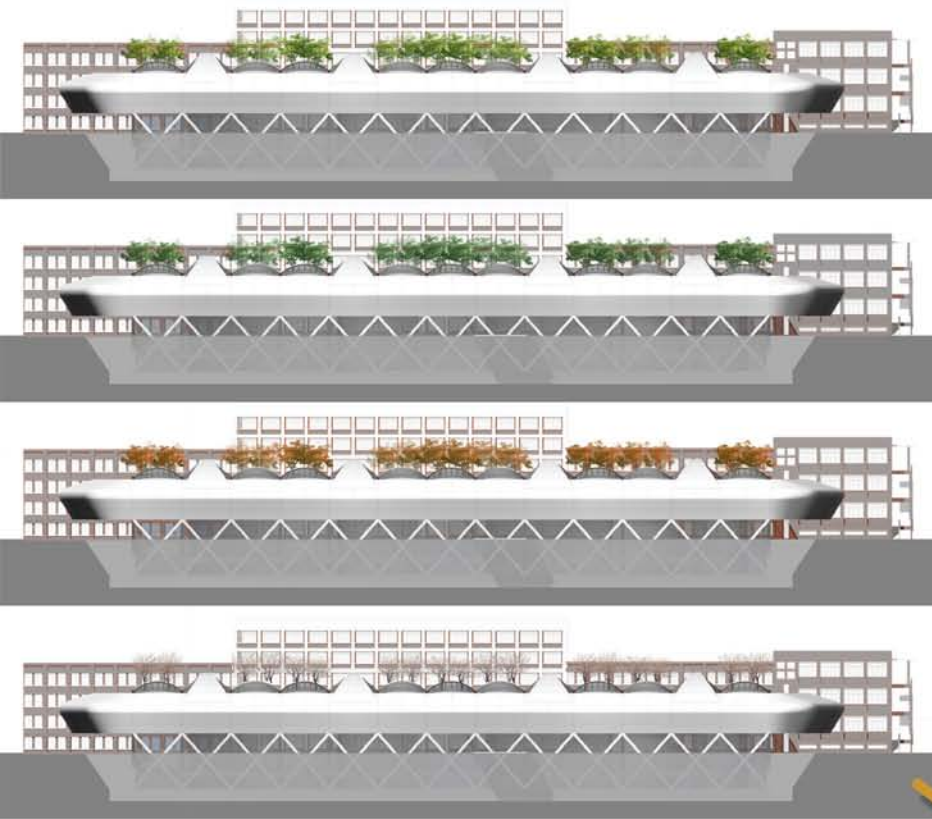
SPRING
LOVELY GREEN
THE YOUNG LEAVES
COME OUT FROM
THE BRANCH

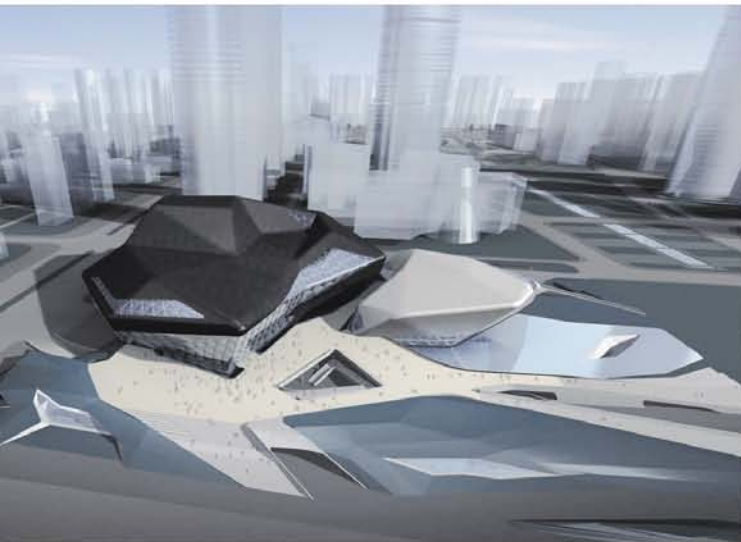
SUMMER
DARK GREEN
THE LEAVES
GROWING LUXURIANTLY
THEY CAN SHADOW
THE SPACES BELOW

AUTUMN
BRILLIANT YELLOW
THE MOST BEAUTIFUL
DAYS IN THE YEAR

WINTER
THE LEAVES HAVE
FALLEN, SUNSHINE
CAN GET INTO THE
SPACES BELOW
THROUGH THE NULL
BRANCHES

EVOLUTION OF THE FACADE





PARAMETRIC

CURRENTLY, WE ARE COOPERATING WITH THE ZAHA*HADID ARCHITECTURE CONSTITUTE ON THE GUANGZHOU OPERA HOUSE. THE PLAN AREA AND THE FLOOR AREA OF GUANGZHOU OPERA HOUSE IS 42 THOUSAND SQUARE METER AND 69 SQUARE METERS RESPECTIVELY. THE MAIN BUILDING IS COMPOSED OF A LARGE THEATRE WITH 1800 SEATS, A MULTIFUNCTIONAL HALL WITH 400 SEATS, AN LOBBY AND A LOUNGE HALL OF 4 THOUSAND SQUARE METERS, THE UNDERGROUND PARK AND OTHER AUXILIARY FACILITIES. THE TOTAL COST OF THE PROJECT IS AROUND 10 BILLION RMB(ABOUT 5RMB = 1 AUD).

PROJECT:
GUANGZHOU OPERA HOUSE
COOPERATOR:
ZAHA HADID ARCHITECT, LONDON
LOCATION:
GUANGZHOU, CHINA
COMPLETION DATE:
2010
TOTAL FLOOR AREA:
69000 M²

