



IMAGE COURTESY OF ©NAKANIMAMASAKHLISI

2014 DESIGN TRENDS

AVIATION ARCHITECTURE

GRACE LENNON ASSOCIATE AIA LEED AP BD&C



ORGANIC

PG 3

INTERIOR

PG 9

ECO-FRIENDLY

PG 6

ORGANIC

INSPIRATION

LOOK TO NATURE FOR ANSWERS TO BOTH COMPLEX AND SIMPLE DESIGN PROBLEMS.

STRIVE TO BE **STRONGER, GREENER,** AND MORE **EFFICIENT.**

PROVIDE AESTHETICALLY PLEASING, AND **SITE-RESPONSIVE** DESIGN.

DESIGN **ICONIC** STRUCTURES.

APPLICATION

USE NATURE-INFLUENCED GEOMETRICAL FORM.

LOOK TO NATURE FOR INSPIRATION IN ORDER TO SOLVE DESIGN PROBLEMS.



IMAGE COURTESY OF STUDIO FUKSAS

BIOMIMICRY

BIOMIMETIC ARCHITECTURE GOES BEYOND USING NATURE AS INSPIRATION FOR THE AESTHETIC COMPONENTS, BUT INSTEAD SEEKS TO USE NATURE TO SOLVE PROBLEMS OF THE BUILDING'S FUNCTIONING.

THOUSANDS OF HEXAGONAL SKYLIGHTS BRING NATURAL LIGHT INTO THIS NEW TERMINAL THAT ITALIAN ARCHITECTS MASSIMILIANO AND DORIANA FUKSAS HAVE COMPLETED AT **SHENZHEN BAO'AN INTERNATIONAL AIRPORT** IN CHINA. THE SCULPTURAL 5,381,955 SQ.FT TERMINAL EVOKES THE IMAGE OF A MANTA RAY AND FEATURES A STRIKING INTERNAL AND EXTERNAL DOUBLE 'SKIN' HONEYCOMB MOTIF THAT WRAPS THE STRUCTURE. THE CURVING ROOF CANOPY CONSTRUCTED FROM STEEL AND GLASS SURROUNDS THE AIRPORT, ACCOMMODATING SPANS OF UP TO 80 METRES. THE SPATIAL CONCEPT IS ONE OF FLUIDITY AND COMBINES TWO DIFFERENT IDEAS: THE IDEA OF MOVEMENT AND THE IDEA OF PAUSE.

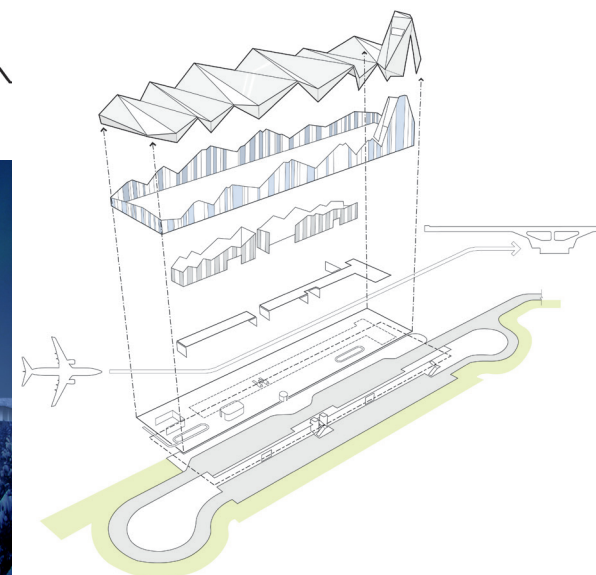


IMAGES COURTESY OF STUDIO FUKSAS

TERRAIN

ORGANIC ARCHITECTURE USES NATURE-INSPIRED GEOMETRY TO RECONNECT THE HUMAN WITH HIS OR HER SURROUNDINGS, WHILE ALSO GIVING REGIONAL DESIGN AN ICONIC LOOK.

ARCHITECTS NARUD STOKKE WIIG OF NORWAY AND HAPTIC OF LONDON HAVE COMPLETED A FEASIBILITY STUDY FOR A NEW INTERNATIONAL AIRPORT JUST OUTSIDE THE **ARCTIC CIRCLE** IN NORWAY. THE TERMINAL BUILDING, WITH ITS DISTINCTIVE ROOF FORM, IS INSPIRED BY A LOCAL LANDMARK; THE MOUNTAINS OF TRÆNA, WITH ITS DRAMATIC PEAKS. IT NOT ONLY VISUALLY ECHOES THE NEARBY MOUNTAINS, BUT IS DESIGNED FOR COPING WITH HUGE SNOWFALLS IN THE WINTER MONTHS. THE ZIG-ZAGGED ROOF CULMINATES IN A TALL PEAK, WHICH HOUSES THE AIRPORT CONTROL TOWER. THIS IS NORWAY'S FIRST NEW AIRPORT IN 40 YEARS, AND FOR INTERNATIONAL TRAVELERS IT OFFERS EASY ACCESS TO THE ARCTIC.



IMAGES COURTESY OF NORDIC — OFFICE OF ARCHITECTURE / HAPTIC ARCHITECTS



IMAGE COURTESY OF RAFAEL VINOLY ARCHITECTS

INSPIRATION

CONNECT TO A REGION'S **LOCAL TERRAIN.**

SUSTAINABILITY AT THE FOREFRONT OF
RESIDENTIAL DESIGN.

LIMIT IMPACT ON OUR ENVIRONMENT.

PROVIDE **DAYLIGHTING** AND PASSIVE HEATING
AND COOLING.

APPLICATION

CONSTRUCT BUILDINGS TO BE ENVIRONMENTALLY
RESPONSIBLE AND RESOURCE-EFFICIENT.

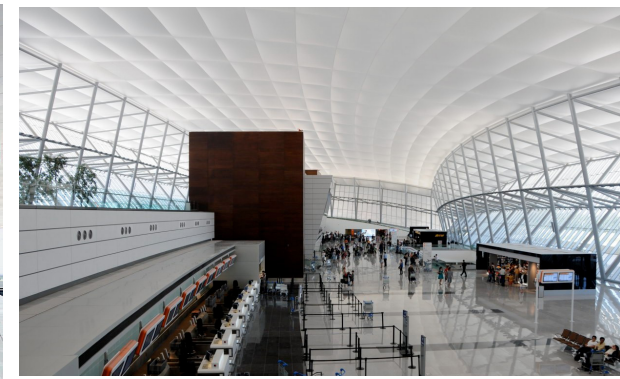
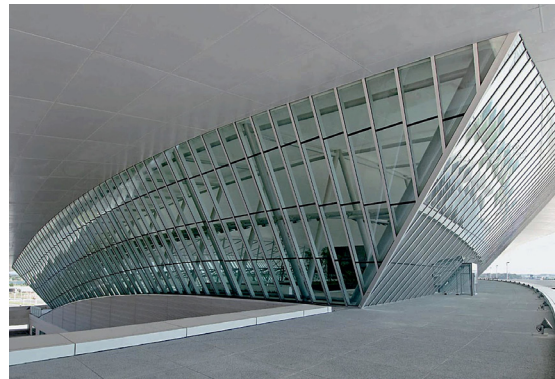
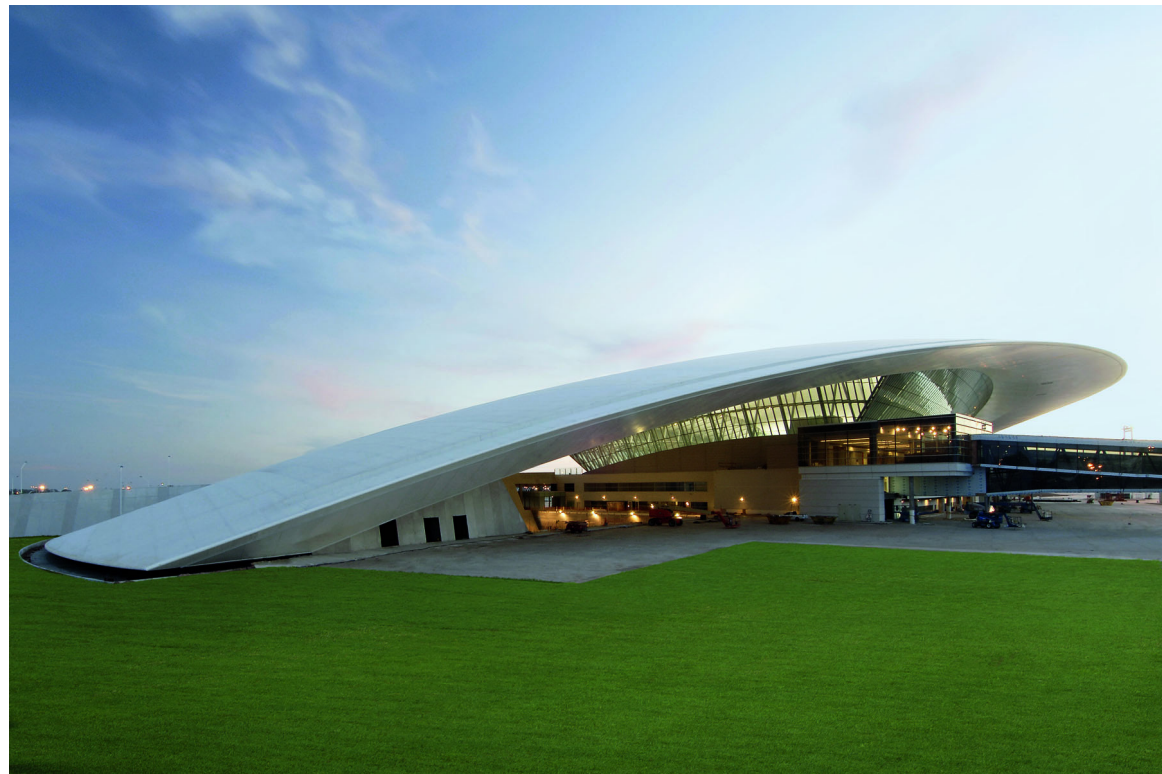
PROVIDE LIGHT-FILLED, SOARING SPACES WITH
FLOOR-TO-CEILING GLAZING

ECO-FRIENDLY

DAYLIGHT

HARVESTING NATURAL LIGHT WITHIN AIRPORT DESIGN—
A KEY PRINCIPLE IN SUSTAINABLE DESIGN—DRASTICALLY
REDUCES ENERGY AND ELECTRICITY COSTS.

THE NEW TERMINAL AT **CARRASCO INTERNATIONAL AIRPORT**, WHICH SERVES URUGUAY'S CAPITAL CITY OF MONTEVIDEO AND DESIGNED BY RAFAEL VINOLY ARCHITECTS, EMPHASIZES ITS PUBLIC ZONES AND AMENITIES, PROVIDING THESE AREAS WITH AN ABUNDANCE OF OPEN SPACE AND NATURAL LIGHT. A PUBLIC, LANDSCAPED TERRACE AND A RESTAURANT OCCUPY THE SECOND FLOOR, PROVIDING SWEEPING VIEWS OF THE RUNWAY AND THE MAIN CONCOURSE. THE GENTLE CURVE AND LOW PROFILE OF THIS MONOLITHIC ROOF HELP INTEGRATE THE BUILDING INTO ITS SITE, WITH ITS FLOWING LINES AND UNDULATING GEOMETRY RESEMBLING THE NATURAL LANDSCAPE OF URUGUAY.



IMAGES COURTESY OF RAFAEL VINOLY ARCHITECTS

ECO-FRIENDLY

PASSIVE

GOING GREEN IS A NO BRAINER FOR AIRPORTS, KEEN TO REMAIN ECONOMICALLY VIABLE IN THE LONG-TERM WHILE FACED WITH RISING COSTS AND COMPETITION FROM REGIONAL HUBS.

UNSTUDIO DESIGNED THE **KUTAISI INTERNATIONAL AIRPORT TERMINAL** WITH A LARGE SPAN TO CREATE UNINTERRUPTED VIEWS THAT AID NAVIGATION, WHILE THE RED CORNER DETAIL ACTS AS “A CROSSING-POINT AND POINT OF RECOGNITION.” INSIDE THE TERMINAL, A LARGE STRUCTURE COVERED IN A WEB OF WOODEN BEAMS DESCENDS FROM THE CEILING AND CREATES A CENTRAL HUB AROUND WHICH PASSENGERS CIRCULATE. THE BUILDING IS WRAPPED IN FULL-HEIGHT GLAZING THAT CREATES A LIGHT-FILLED INTERIOR WITH VIEWS OF THE CAUCASUS MOUNTAINS. IT ALSO INCORPORATES NUMEROUS SUSTAINABLE ELEMENTS, INCLUDING A HYBRID LOW PRESSURE VENTILATION SYSTEM.



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ECO-FRIENDLY

INTERIORS

INSPIRATION

THE NEED FOR **SOCIAL SPACES** TO PROVIDE POSITIVE INTERACTIONS.

DESIGN FROM THE **USER-POINT OF VIEW.**

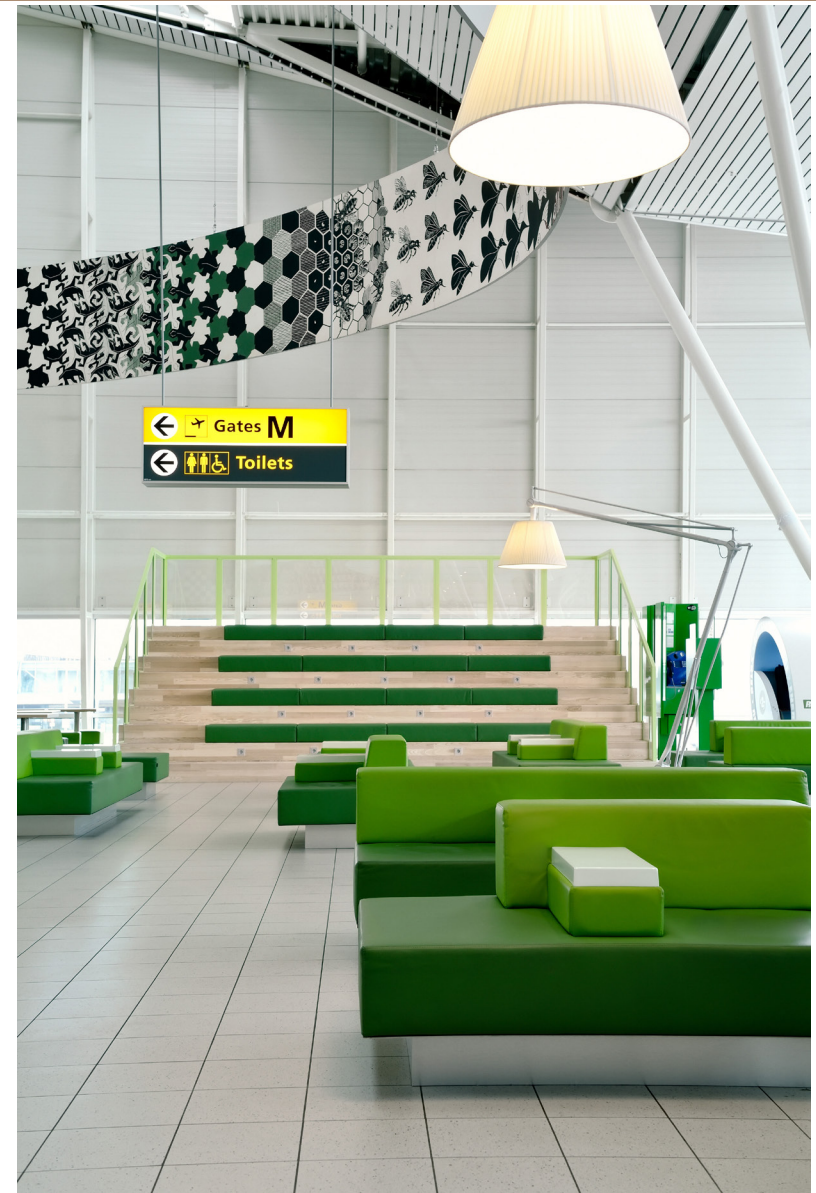
MULTIPLE FUNCTIONS IN ONE SPACE.

PROVIDE **ANXIETY-FREE** EXPERIENCE.

APPLICATION

PROVIDE WELL-DESIGNED AIRPORT LOUNGES THAT ENGAGE THE USER.

INCORPORATE LUSH GREENERY WITHIN THE INTERIORS OF TERMINALS.



IMAGES COURTESY OF TJEP

INTERIORS

NEIGHBORHOOD

THE NEW TREND AMONG AIRPORT ARCHITECTS IS TO DESIGN FROM THE USER-POINT-OF-VIEW—A SHIFT FROM THE MONUMENTAL, EGO-DRIVEN BUILDINGS TO MORE RELAXED ENVIRONMENT.

THE **DEPARTURE LOUNGE 4** AT AMSTERDAM'S SCHIPHOLS AIRPORT, DESIGNED BY THE DUTCH FIRM TJEP, CONSISTS OF TWO RETAIL SECTIONS AND A WAITING AREA. IT INCLUDES A SLIDE TO KEEP CHILDREN OCCUPIED WHILE THEY WAIT, WITH WOODEN BLEACHERS AND GREEN CUSHIONED SEATING IN THE MAIN WAITING AREA. THE DESIGN CONVEYS THE FEELING OF A COZY NEIGHBORHOOD RATHER THAN A HUGE INTERNATIONAL AIRPORT. THE SEATING AREA SPREADS OUT LIKE A BEAUTIFUL FRESH GREEN GRASS LANDSCAPE, WHILE TWO PROMINENT STANDS OFFER A DIFFERENT LEVEL FOR PEOPLE WHO LIKE TO HAVE AN OVERVIEW.



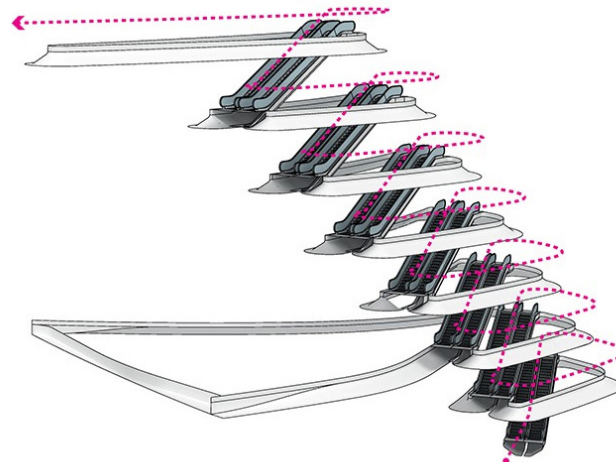
IMAGES COURTESY TJEP.

INTERIORS

GREENERY

AIRPORT DESIGNERS ARE USING LANDSCAPE DESIGN TO PROVIDE A FUSION BETWEEN INSIDE AND OUTSIDE, INCORPORATING LUSH GREENERY INTO THE AIRPORT TERMINALS.

THE NEW 125,000M2 DEVELOPMENT FOR **CHANGI AIRPORT** IN SINGAPORE IS LOCATED AT THE HEART OF THE AIRPORT COMPLEX AND SERVES TO CONNECT THE AIRPORT'S ENSEMBLE OF TERMINALS AND EXISTING STRUCTURES. UNSTUDIO'S DESIGN PROPOSAL FOR THE NEW COMPLEX OFFERS A BLEND OF NATURE AND MALL, WITH THE GARDEN ATTRACTION FORMING THE MAIN THREAD WITHIN THE DESIGN AS WELL AS THE THEME OF ALL THE ACTIVITIES IN THE BUILDING. THE VARIED HEXAGONAL UNITS IN THE DOUBLE-LAYERED FACADE CONTROL DAYLIGHT PENETRATION AND VIEWS WHILE MAXIMIZING SHADING IN THE AREAS WHERE THIS IS REQUIRED.



IMAGES COURTESY UNSTUDIO



THANK YOU

ALL PHOTOS AND CONTENT USED WITH PERMISSION

DESIGNERS FEATURED:

- ARCHITECTS MASSIMILIANO AND DORIANA FUKSAS
- ARCHITECTS NARUD STOKKE WIIG AND HAPTIC
- RAFAEL VINOLY ARCHITECTS
- UNSTUDIO
- TJEP

CREDITS