

GreenBuildings

З Е Л Е Н Ы Е З Д А Н И Я

Большая трапеза в Милане
Great Meal in Milan

Экорайон на Капитолийском холме
EcoDistrict on Capitol Hill

WaterNest 100, или «Гнезда на воде»
WaterNest 100 or Housing on the Water

Голландское ветроколесо – ветряная мельница XXI века
The Dutch Windwheel – the Windmill of the XXI Century



12+



Villa Amchit: Triumph of Horizontality, in "Green Buildings" (Russia)
August 2015, n. 2, pp. 100-103, 139-140



ВИЛЛА АМШИТ ТОРЖЕСТВО ГОРИЗОНТАЛЬНОСТИ

► Материалы предоставлены BLANKPAGE Architects
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СТУДИЯ BLANKPAGE ARCHITECTS ЗАВЕРШИЛА РАБОТУ НАД СОЗДАНИЕМ ЭЛЕГАНТНОГО ПЛЯЖНОГО ДОМА, РАСПОЛОЖЕННОГО НА ЖИВОПИСНОМ ПОБЕРЕЖЬЕ СРЕДИЗЕМНОГО МОРЯ, НЕДАЛЕКО ОТ ЛИВАНСКОГО ГОРОДА АМШИТ. ЭТО ПОИСТИНЕ РАЙСКОЕ МЕСТО ДЛЯ ОТДЫХА СЕМЬИ ИЗ ЧЕТЫРЕХ ЧЕЛОВЕК, ГДЕ НИКТО НЕ ПОМЕШАЕТ НАСЛАЖДАТЬСЯ ПРЕКРАСНЫМ ТЕПЛЫМ КЛИМАТОМ И ЖИВОПИСНОЙ ПРИРОДОЙ. РАБОТАЯ В БЕЙРУТЕ, ГДЕ МНОГОЕ ИЗМЕНИЛОСЬ ЗА ПОСЛЕДНЕЕ ВРЕМЯ И ГДЕ ДИЗАЙНЕРЫ ПОСТОЯННО НАХОДЯТСЯ В ПОИСКАХ КУЛЬТУРНОЙ ИДЕНТИЧНОСТИ, АРХИТЕКТОРЫ BLANKPAGE СМОГЛИ ВЫРАБОТАТЬ СВОЙ СОБСТВЕННЫЙ ЯЗЫК, ИСПОЛЬЗУЯ КОТОРЫЙ ОНИ ИЗВЛЕКАЮТ УРОКИ ИЗ ИСТОРИИ И ПЕРЕОСМЫСЛИВАЮТ ИХ В КОНТЕКСТЕ НОВОГО ВРЕМЕНИ И ЗАДАННЫХ УСЛОВИЙ.

Амшит – это прибрежный город у подножия горного Ливанского хребта, примерно в 40 км к северу от столицы Ливана Бейрута. Идея проекта «Вилла Амшит» (Amchit Residence) преследовала две цели: построить дом в неровный берег, отлого спускающийся с востока на запад, и предложить лучшие морские виды его обитателям. Архитекторы продемонстрировали особое внимание к ландшафту, интегрируя здание в рельеф, не допустив при этом значительных нарушений земельного покрова. Их тонкое восприятие окружающей среды нашло свое выражение также и в том, что сам дом стал ее неотъемлемой частью, объединив внешнее и внутреннее, архитектуру и природу.

Построенный на узком участке земли размером 10 × 44 м, дом высотой в три этажа имеет площадь почти 450 кв. м. В нем три спальни, причем спальня хозяев находится на среднем уровне, откуда лучше всего видно



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информация

**РЕЗИДЕНЦИЯ АМШИТ
(AMCHIT RESIDENCE)**
Расположение:
 город Амшит, Ливан
Архитектура:
 BLANKPAGE Architects
Строительство: 2014
Площадь участка: 471 кв. м
Площадь дома: 450 кв. м

- 1 – Терраса с пейзажным бассейном на первом этаже
- 2 – Северный фасад (элементы конструкции обшиты бирманским тиком)

небом. Теплое деревянное внутреннее ядро этого жилища быстро меняется вместе со светом, проникающим через стеклянную крышу и огромные окна, отражая непрекращающуюся игру света и тени, происходящую в течение дня.

В современных условиях, когда архитектура испытывает последствия глобализации, что в Ливане еще более усугубляется социальными и политическими конфликтами, заставляя дви-



морю. Все элементы этого жилища, включая высокие стеклянные стены, открытые террасы и пейзажный бассейн, по сути, задуманы для того, чтобы открывать новые морские горизонты. Конструкция дома включает большую плоскую крышу, в которую встроен длинный плавательный бассейн, и террасу для принятия солнечных и воздушных ванн с шезлонгами, куда можно подняться прямо из главной спальни.

Продолжением здания являются многочисленные рампы и террасы,

связывающие его с окружающим ландшафтом. А лаконичные интерьеры в минималистическом стиле выражают простоту жизненных потребностей клиентов. Нейтральная цветовая гамма – серая керамическая плитка «под бетон» во входной зоне и спальнях, теплые коричневые полы из бирманского тика в главной спальне – дополняется красноватой древесиной, которой обшиты стены и потолки. В самом сердце дома «вырезан» прямоугольный атриум, который визуально связывает интерьер с

гаться в сторону историзма и кича, BLANKPAGE Architects демонстрирует глубокое понимание уроков модернизма. Архитекторы заявили о себе на международном уровне в 2011 году, когда завершилось строительство ночного клуба «Пирс 7» (PIER 7) – произведение лэнд-арта органично вписалось как в индустриальный контекст этого заброшенного участка, так и в природный приморский пейзаж.

Работая в таком городе, как Бейрут, где царят городской хаос и смешение стилей, и в окружении многочислен-



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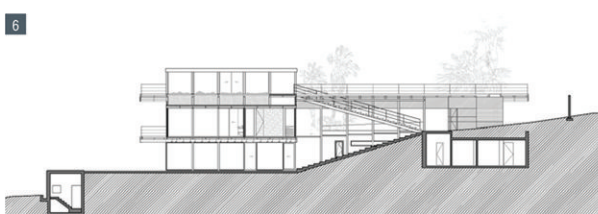
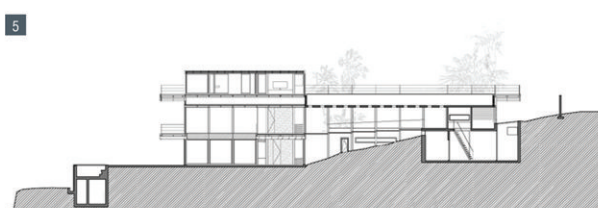
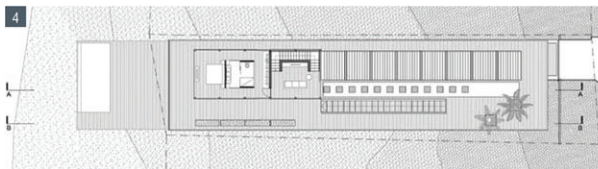
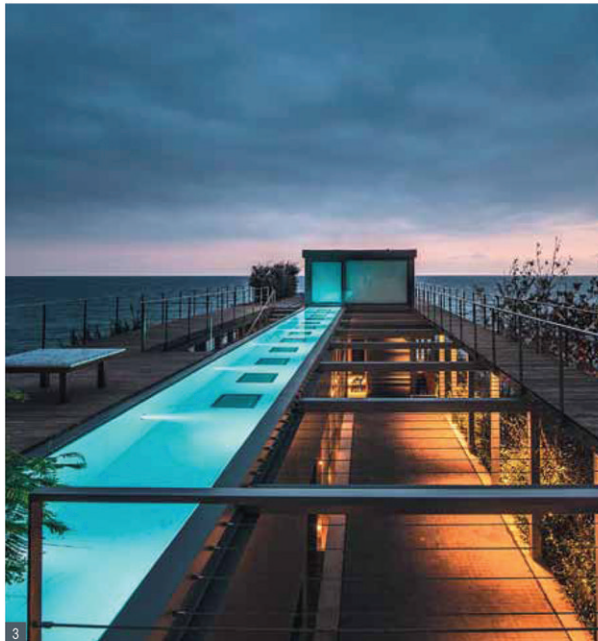
О КОМПАНИИ



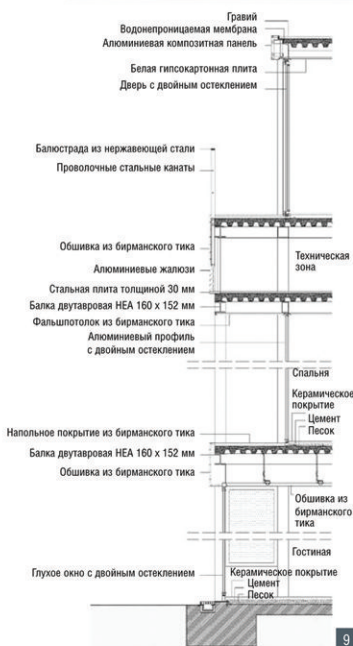
Компания BLANKPAGE Architects, которой управляют партнеры Патрик Межер (Patrick Mezher), Карим Надер (Karim Nader) и Валид Гантуас (Walid Ghantous), основана в 2000 году. Кредо архитекторов в том, что каждый проект должен учитывать специфику, вытекающую из его расположения, то есть исторические и символические особенности места и заданной программы. В результате рождается здание, которое становится событием, позволяющим городу и его жителям получить новый опыт ощущения пространства. Растущий портфель заказов компании – это множество проектов (общественные, жилые и коммерческие здания), реализуемых в Ливане и других странах арабского мира.

- 3 – Плавательный бассейн на верхней террасе
- 4 – План первого этажа
- 5 – Вертикальный разрез (секция А)
- 6 – Вертикальный разрез (секция В)
- 7 – Гостиная на первом уровне
- 8 – Спальня хозяев на среднем уровне
- 9 – Конструкция стены (схема)

ных коллег, находящихся в постоянном поиске культурной идентичности, архитекторы BLANKPAGE смогли сформулировать собственный язык, который исходит из основополагающих принципов модернизма и в то же время является контекстуальным, чутко реагирующим на вопросы экологии и культурной специфики. По сути, все сказано названием, которое они выбрали для своей компании: каждый проект начинается как с чистого листа, то есть каждый раз все с самого начала, без предубеждения относительно формы или стиля.



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ОПИСАНИЕ
 ПРОЕКТА

Пляжный дом, который задуман в виде нескольких ярусов, стремится максимизировать свою связь с морем через визуальное и композиционное торжество горизонтальности как в целом, так и на уровне средиземноморского горизонта. Плиты перекрытий, как и неброскую стеклянную оболочку, удерживает легкая стальная конструкция, собранная из одинаковых квадратных колонн, состоящих из модулей размером 2,55 м.

Дом встроен в склон, поэтому подъехать к нему на машине можно только со стороны улицы, проходящей немного ниже верхней террасы, где находится одна из спален, из которой есть выход на большую террасу с бассейном. На среднем уровне расположены еще две спальни.

Наконец, нижний уровень служит в качестве зоны для приема гостей, которая простирается в сторону моря через открытый пейзажный бассейн и оборудована лестницей для спуска на берег. Снаружи террасы соединяют пандусы и лестницы, органично вписывая дом в скалистый береговой пейзаж.

Пересечения стальных конструкций и деревянных настилов создают разнообразие узоров из тени и света, постоянно меняющихся в течение дня, что оживляет впечатление от этой простой конструкции. Во время заката дом, ориентированный на запад, подобно фотодиафрагме впускает внутрь лучи заходящего солнца, делая пространство в темно-красных тонах более глубоким, а предметы – четко очерченными. ■



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site, the ecology of the site and a restoration of the riverbank were of significant importance to the USACE. Building 1202 invigorates the campus while complementing the adjacent historic 1930 Albert Kahn-designed former Ford Motor Company building. The area's industrial legacy still manifests itself in poor air quality, due to a nearby cement plant and freight corridor. To ensure high levels of air quality, 100 percent filtered outdoor ventilation air is delivered underfloor. Outdoors, the EPA is cleaning up the surrounding area which allows employees to enjoy new site trails.

This 4.6 acre site was transformed from 100 percent impervious to 50 percent pervious landscape. The design leveraged and enhanced the site's natural ecology. Roof rainwater is collected for non-potable purposes, and overflow joins on-site drainage runoff to be treated within stormwater surface ponds, rain gardens, and wet ponds prior to being infiltrated. 100% of the stormwater is collected around the perimeter of the site and directed to the western-most pond, eliminating the need to connect to the oversized City stormwater system and creating first cost savings.

Percent reduction of regulated potable water: 79%

MATERIALS & CONSTRUCTION

Given the engineering focus of the occupant's material design and selection, the design focused on exposing structural and HVAC systems, while using durable and sustainable materials. The office portion highlights structural steel, a highly recyclable resource, while the atrium features reclaimed wood.

Compact form with reduced envelope area and a three story approach reduce the footprint and materials of the project. Approximately 200,000 board feet of structural timber and 100,000 board feet of decking were reclaimed from the decommissioned on-site warehouse. Using a phased demolition process, wood components were individually harvested from the warehouse. The team pulled nails, unfastened bolts, removed brackets and devices, stemmed out fractures, and sorted the wood before it was shipped to a local mill for structural grading and fabrication.

Composite beam construction of the commons optimized the use of the available salvaged lumber with lag bolts from the wood structurally engaging a reinforced concrete topping slab. This was the first time this design was used in the U.S. and the team built a mockup in the adjacent warehouse to test structural integrity of the proposed composite timberconcrete system.

ENERGY FLOWS & ENERGY FUTURE

The building's form was designed to minimize annual conditioning energy, peak loads, and as a build-

get strategy that enabled shifting project money to additional environmental enhancements. The compact form reduces heat transfer, while the centralized atrium daylight the interior. Work space on the western orientations is minimized, reducing comfort issues, while providing landscape and Duwamish River views. Exterior sun-shading elements respond to orientation. Reduced peak cooling loads resulted in a 10 percent reduction in central plant cooling capacity.

The effectiveness of the hybrid MEP strategy of GHP used for base heating and cooling resulted in less than 10 percent of the projects conditioning loads coming from the fossil fuel boiler.

During the first quarter of operation the HVAC systems and control strategies were tuned to improve thermal comfort and acoustics in select spaces. Glass concerns were identified and resolved. Opportunities to reduce plug loads, which were significantly higher than design assumptions (50 percent higher during occupied hours, 100 percent higher overnight), were suggested but couldn't be acted upon. After one year of operation the building was tuned from 10 percent over the target in the first quarter to 12 percent below in the fourth quarter.

Daylighting at levels that allow lights to be off during daylight hours: 61%

Percent Reduction from National Median EUI for Building Type: 98%

CONCLUSION

This project was designed to meet GSA's requirement for a building with a 50-year minimum lifespan, and mechanical equipment that lasts a minimum of 20 years.

It came with the imperative to "prove the performance", delivering a 200,000 SF 21st Century work space through a fully integrated fast-tracked project process and meeting outstanding high performance green building benchmarks, including minimum LEED GOLD certification and contractually guaranteed energy performance. The first year energy performance, including the commissioning period, was an EUI of 33.3 kBtu/SF/yr, or 25.7 after adjusting for weather, plug loads and operating hours agreed upon during the design.

The process resulted in numerous innovations and design synergies contributing to performance, constructability and budget. Customer satisfaction is at an all-time high which has attracted the attention of outside organizations wanting to research "how it was done."

U.S. ARMY CORPS OF ENGINEERS
SEATTLE HEADQUARTERS,
USACE

Location: 4735 E. Marginal Way
Seattle, Washington, United States

Project Owner: United States General Services Administration

Submitting Architect: ZGF Architects LLP

Design-Build Contractor: Sellen Construction

Structural / Civil Engineer: KPFF Consulting Engineers

Mechanical / Plumbing Engineer: WSP / University Mechanical

High Performance Design: WSP Built Ecology

Lighting / Telecommunications: WSP

Electrical Engineer: Lane Coburn & Associates, LLC / Sequoyah Electric, LLC

Landscape Architect: SiteWorkshop LLC

Graphics and Signage Studio: SC

Elevator Consultant: Lorch Bates

Acoustical Engineer: The Greenbush Group

Fire Protection Engineer: Ruff Jensen & Associates / Tesson Engineering

Geotechnical Engineer: Hart Crowser & Associates, Inc.

Project Completion Date: October, 2012

Building or Project Gross Floor Area: 200,000 square feet

Total project cost at time of completion, land excluded: \$72,000,000

Rating System: LEED Platinum

RESIDENCE

Villa Amchit: Triumph of Horizontality (p. 100)

MATERIALS PROVIDED BY BLANKPAGE ARCHITECTS
PHOTO: © IEVA SAUDARGAITĖ

Beirut based studio BLANKPAGE Architects recently completed an elegant beach house, perched along the ruggedly picturesque coastline in Lebanon that offers exceptional views of the Mediterranean Sea. A pleasant seaside haven for a family of four that monopolizes on the beautifully warm Lebanese weather, inviting light in, while maintaining privacy and security. In a city like Beirut, where urban chaos and changes are substantial, and where designers are constantly searching for a definition of a cultural identity, the architects at BLANKPAGE have been able to distill a language of their own, one that is capable to learn many

lessons from history and to reinvent itself according to time, context and given conditions.

Amchit is a coastal town at the feet of Mount Lebanon, about 40 km north of Beirut. The idea was twofold: integrate the house within a rugged terrain, sloping from east to west, while commanding the best sea views for its occupants. The architects demonstrate a particular sensitivity to the landscape, integrating the building within the topography, avoiding major disruptions to the land. This sensitivity is reflected also in the plans of the house, which show the interrelation between inside and outside, between architecture and nature.

Built on a narrow 10-by-44-meter lot, the nearly 450 square meter, 3 bedroom house has three levels, with the master bedroom situated on the top floor to take maximum advantage of the sea views. All elements of this residence - including the tall glass walls, the outdoor deck and the infinity-edge pool - were, in fact, designed for optimized views and openness to the sea. The structure is distinguished by its large single-plane terrace, which accommodates an elongated lap pool and an expansive sun deck, both directly accessible from the master bedroom.

The external promenade, with its ramps and terraces, is an extension of the building and connects it with the surrounding landscape. The interiors, uncluttered and furnished in the minimalistic simplicity style, reflect the easy living requirements of the clients. A neutral palette of colors - the grey of the ceramic concrete-finish tile in the reception and bedroom areas, the warm brown of the Burma teak flooring in the master bedroom - complement the reddish timber and the concrete finishes of the interior walls.

At the center of the house, a rectangular void is cut out to reconnect the interior with a view to the sky. The warm, wooden inner core of the dwelling flirts with light coming through the skylight and the expansive windows, reflecting the infinite change of light and shadow as it evolves throughout the day.

In the current architectural climate of globalization, which in Lebanon is especially exacerbated by social and political conflicts and sometimes drifts towards historicism and kitsch, BLANKPAGE Architects demonstrate a deep understanding of the Modernist lesson. They emerged, internationally, in 2011, following the completion of PIER 7 nightclub: a piece of land art that relates to its industrial context as well as to its natural seaside landscape.

In a city like Beirut, characterized by urban chaos and by a promiscuity of styles, and surrounded by many colleagues who are in continuous search for a cultural identity, the architects





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at BLANKPAGE have been able to distill a language of their own, one that builds upon the original agenda of Modernism while at the same time being contextual, environmentally sensitive and responsive to the questions of cultural specificity. The name they chose for their practice says it all: every project starts from a blank page, as if each time it was restarting from scratch, without preconception of form or style.

PROJECT DESCRIPTION

Conceived as a layering of decks, the beach house seeks to maximize its relationship with the sea through a visual and compositional celebration of horizontality in general and the Mediterranean horizon in particular.

The slabs are held by a minimal steel structure made of equally sized square columns on a regular module of 2.55 m, as well as a discreet glass enclosure. Given the inclined nature of the site, the house is approached by car on the street level just below the upper deck. The upper platform contains the master bedroom that opens up on an elongated lap pool and expansive sun deck. The middle platform houses two bedrooms and a family living.

Finally, the lower deck serves as a reception area that extends outdoors towards the sea through an infinity pool as well as a staircase to the shore. In addition to the inner circulation core, a smooth promenade formed by a system of external ramps and staircases connects the platforms, linking the various levels of the rocky landscape that stretches between the street all the way to the sea.

The rhythms of the steel structure and wooden decking create a multiplicity of overlapping patterns of shadows that vary in direction and length all through the day rendering the simple structure at once complex and alive. At the particular moment of the sunset, the house, oriented almost due west at the elevation that faces the sea, acts as photographic diaphragm that invites the rays of the setting sun into the depths of the house, dashing the prototypical spaces in a horizontal glow of deep red.

AMCHIT RESIDENCE

Location: Amchit, Lebanon
Architects: BLANKPAGE Architects (Karim Nader, Patrick Mezher, Walid Ghantous)

Construction completed: August 2014

Plot area: 471 square meters
Built area: 450 square meters

ABOUT COMPANY

BLANKPAGE is Patrick Mezher, Karim Nader and Walid Ghantous. Founded in the year 2000, BLANKPAGE is a collaborative design studio of archi-

itects, urban designers and artists. The studio's credo is that each project should respond to the specificities of the context it stems from and that, driven by the symbolic and historical manifestations which are present in the place and the particularities of the given program, the resulting building will be an event that moves the city and its inhabitants into a novel experience of space. The growing portfolio of projects tackles a variety of programs in the contexts of Lebanon and the Arab World. BLANKPAGE's experience ranges from public buildings (cinemas, museum, night clubs) to residential and commercial developments. ■

**AQUATORY
WaterNest 100
or Housing
on the Water**

(p. 104)
**MATERIALS PROVIDED BY
GIANCARLO ZEMA DESIGN
GROUP**

After years of research the architect Giancarlo Zema, already famous for his water creations, has designed in exclusive for the British firm EcoFloLife, an eco-friendly floating housing unit the WaterNest 100. It is an enveloping of 100 sqm residential unit, 12 m in diameter and 4 m high, made entirely of recycled glued laminated timber and a recycled aluminium hull. Balconies are conveniently located on the sides and thanks to the large windows, permit enjoyment of fascinating views over the water.

Bathroom and kitchen skylights are located on the wooden roof, as well as 10kgm of amorphous photovoltaic panels capable of generating 4 kWh which are used for the internal needs of the residential unit. The interior of WaterNest 100 can include a living room, dining area, bedroom, kitchen and bathroom or have other configurations according to the different housing or working needs.

It is perfect like an ecological house, office, lounge bar, restaurant, shop or exhibition floating space. The selected furnishings in the EcoFloLife catalogue are top design, eco-friendly and elegant, and thus meet the most demanding contemporary needs.

WaterNest 100 can be positioned along river courses, lakes, bays, straits and sea areas with calm waters. The use of materials and

sustainable production systems make this unit recyclable up to as much as 98%. In addition, thanks to a sophisticated system of internal natural micro-ventilation and air conditioning, it is classified as a low-consumption residential habitat. WaterNest 100 is the ideal solution for those wishing to live independently, exclusively and in complete harmony with nature.

INTERIOR

The interior of the WaterNest 100 are characterized by being warm and welcoming, contemporary style and innovative. The scent of wood structure invades the space. The large windows allow light to enter and illuminate all day the environments. The furnishings are of high design in recycled and recyclable material - the result of a rigorous selection of the most renowned and established eco-friendly contemporary design companies, thus meeting the trendiest style requirements.

Natural materials, soothing colors, soft shapes, allow you to live in an exclusive environment in direct contact with nature. Read a good book illuminated by the rays of the sun coming through the large windows, listen to soft music in an acoustically designed environment, stay comfortably on a chaise longue of design close to a window that overlooks a magical pond, with WaterNest 100 this is possible.

LAYOUT

WaterNest 100 has a 100 sqm circular layout, 12 m in diameter, with balconies conveniently located along the longer sides that allow enjoying, thanks to the large windows, fascinating views over the water. WaterNest 100 has several possible configurations, depending on the different housing or working needs.

HOUSE / RESORT

This version of WaterNest 100 is ideal to accommodate a young couple or a family of four, wishing to live in a new, eco-friendly and non-conformist manner, without sacrificing comfort, elegance or style. WaterNest 100 includes in its interior a living room, dining area, bedroom, kitchen and bathroom. The selected furnishings in the EcoFloLife catalogue allow embellishing the space with a touch of colour and joy.

OFFICE / LAB

This version of WaterNest 100 is more suited for a young and dynamic work team wishing to communicate and work in a single, one-of-a-kind space, in close contact with nature. WaterNest 100 can fit separate or adjoining workstations, a bathroom, storage and archive. The EcoFloLife catalogue has refined furnishings such as desks, chairs and floor lamps, which are made entirely of recycled flame-retardant cardboard in different colours.

SHOP / EXHIBITION

This version of WaterNest 100 is best suited for those wishing to open an innovative floating business or exhibition gallery. A large open-space that can be modelled according to the various businesses needs with storage, dressing room and toilet. The EcoFloLife catalogue has refined furnishings such as reception, armchairs and floor lamps, made entirely of recycled flame-retardant cardboard.

LOUNGE BAR / RESTAURANT

This version of WaterNest 100 is the ideal design to accommodate an innovative and charming, as well as entirely environmentally friendly restaurant for bio products or an intriguing floating bar. There are open-space with a bar, stools, tables, chairs, kitchen and toilets for a maximum capacity of 40 people. The EcoFloLife catalogue has modern environmentally friendly and top design furnishings, with colourful, trendy organic shapes.

WATERNEST 100

Ecological floating habitat
Project: Giancarlo Zema Design Group
Client: EcoFloLife
Consultant: EcoFloLife (technical team)
Construction value: € 1 million ■

ACOUSTICS

The Key to Comfortable Living

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Much as one would like to, but cannot escape from the background noise and sounds. Under some conditions it is very difficult to protect one from them; and when they reach a certain level of decibels (dB) the level of noise becomes really dangerous for one's health. Yet in the world of today there exist ways to deal with noise. Alexey Archackov, concept development manager at the ECOPHON division of "Saint-Gobain", is going to dwell on how noise can hurt us, how we can protect ourselves against it and what are the characteristics of acoustic comfort for various types of spaces.

Alexey, it is common knowledge that the increased level of noise

