

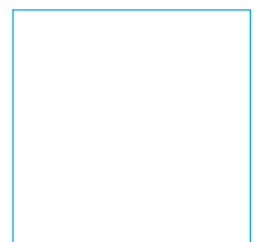
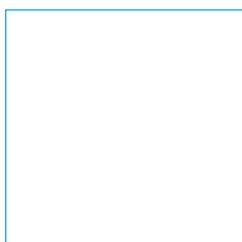
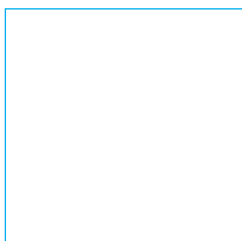
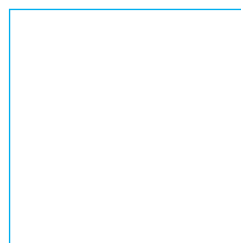
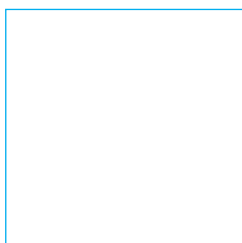
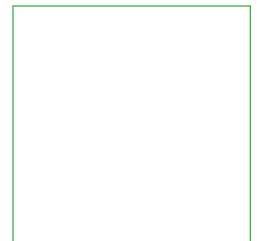
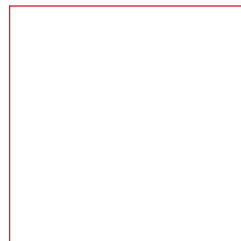
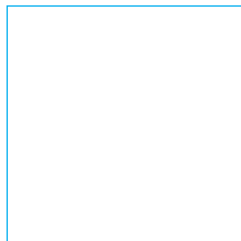
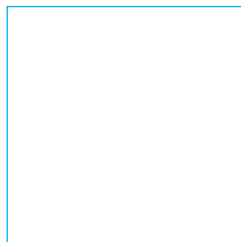
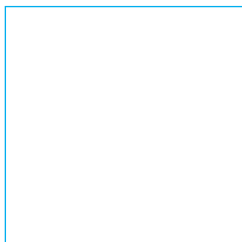
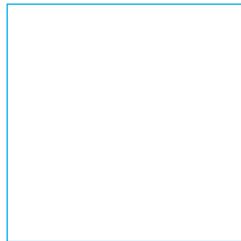
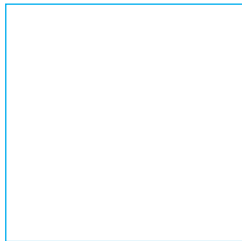
维也纳可持续性的住房建筑

建筑住房。 建筑公司。 详细介绍。

Best Practices

Sustainable Housing Construction in Vienna

Buildings, Architects, Builders





© wohnfonds_wien

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1984年，维也纳市政成立了维也纳住房基金会。
它负责购买建造社会福利住房的建筑地
基金会还负责管理建筑工程的准备、发展、质量管理、以及城市更新措施，
包括顾问福利住房的维修过程。

到目前为止，维也纳住房基金会已经提供了5,08万套新福利住房。基金会也进行了34次建筑发展竞赛，经过竞赛建造的住房有13,5万套。住房基金理事会到目前为止已评估了超过1200个住房建筑工程，其中710个工程得到建筑补贴，共5,59万套房间。

到2008年一月，住房基金会接受了超过1,03万个维修工程的补贴申请，其中大约5900个得到了申请补贴。有4820栋建筑的维修已经完毕。经过申请得到肯定的投资总额超过54,2亿欧元，其中有36亿为维也纳市政府提供。

wohnfonds_wien was founded in 1984 based on a resolution of Vienna's City Council.

- Land procurement for social housing.
- preparation, development of projects, quality management and realization of measures for urban renewal, especially consultation, coordination and control of subsidised housing improvement.

Because of the major task of the wohnfonds_wien in the field of land procurement and project development it was possible to develop land for the construction of about 50,800 new subsidised flats until today. Within the scope of quality ensurement in subsidised housing projects 34 public housing-development competitions with a volume of about 13,500 flats were carried through until now. More than 1,200 housing projects were assessed by the land advisory board, of which approximately 710 projects with about 55,900 housing units were being recommended for assistance.

Until January 2008 more than 10,300 applications for subsidised housing improvement had been filed and of these about 5,900 were approved of for subsidised improvement. The reimprovement work has been concluded in 4,820 houses. The investment volume recommended for subsidised improvement (based upon previous investigations) is valued at more than 5.42 billion Euro, the grant of the municipality of Vienna about 3.6 billion Euro.



wohnfonds_wien
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低能耗建筑和被动式能源建筑

维也纳新建的福利住房均须按低能耗建筑的标准建造。

低能耗建筑的能源消耗低于每年的40 kWh/m²。

被动式能源建筑的暖气消耗低于每年的15 kWh/m²。在维持同样温度的状态下,被动式能源建筑的热能消耗比原来的建筑减少了80%。

被动式能源建筑采用了最新科技并得到了市政补贴,从长远着眼,它的经济效益不可低估。

低能耗建筑只需微量的热能,

被动式能源建筑的能源主要取决于:

太阳能

家庭设备余热

人体自身热量

Low energy house – zero energy/passive house

Low energy standards are now compulsory for all subsidised new housing constructions in Vienna. Low energy houses are buildings with a heat requirement of less than 40 kWh/m² residential area annually.

Heat requirements for zero energy/passive houses are below 15 kWh/m² residential area annually. Desired room temperatures are achieved with approximately 80% less energy than normally required.

With today's technology it is possible to economically build subsidised housing using the passive house construction method.

Low energy houses require little heating energy, passive houses primarily receive energy from:

- solar radiation
- heat released from technical appliances
- heat emitted by residents

木结构建筑

使用木材结构的建筑好处在于它的环保和自然再生,它不但能降低建筑费用,而且能降低建筑能源,其实它是一种干燥建筑工程,建完后的住房具有更温馨的家庭气氛,由于木材的轻便,使完成的木结构建筑部分更便于运输。

木结构建筑的防火计划:

2001年维也纳市政召集了防火专家、建筑发展商和建筑师,专门研讨关于木结构建筑的防火问题,并作出了相应的建筑法律条文。

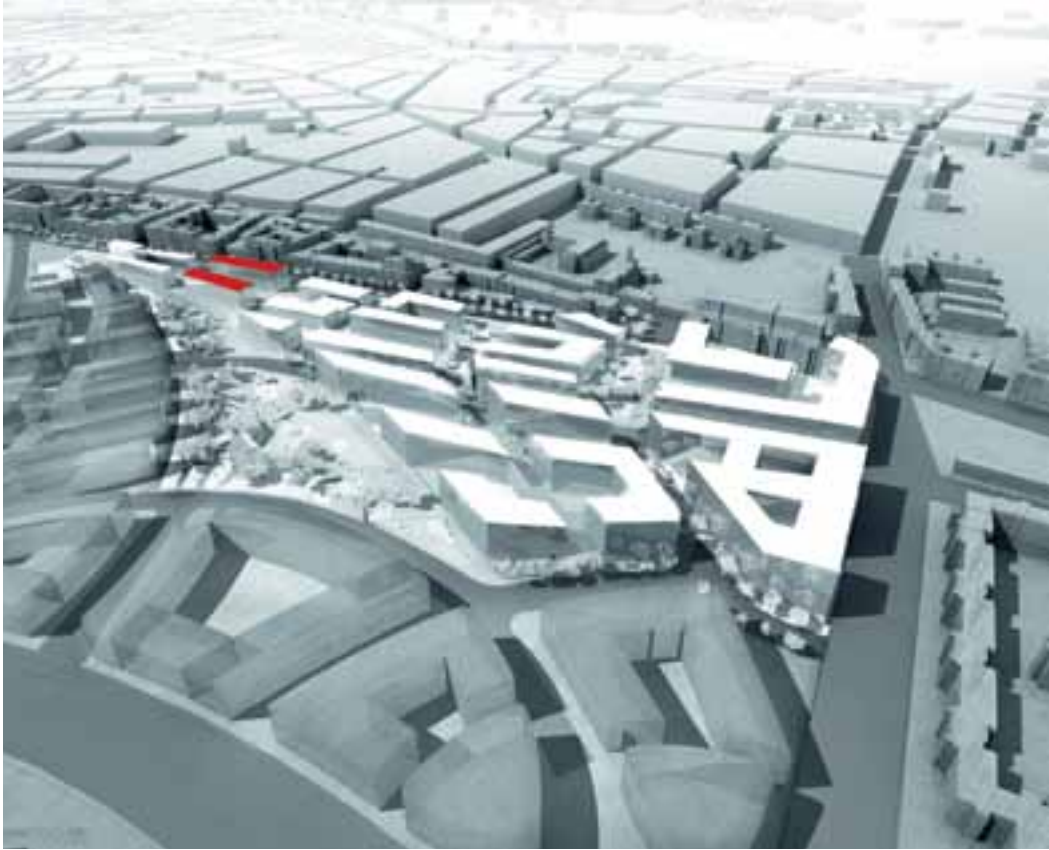
Timber construction (cross-laminated timber element)

The advantage of wood as a building material is its ecological aspect – it is a renewable raw material, energy and construction costs are low, the dry-construction method applies – plus the fact that it creates a pleasant and comfortable living environment.

The wooden elements can be prefabricated and because of their relative light weight are transported easily.

Fire safety is essential for timber constructions:

In 2001 the City of Vienna prepared an amendment to the building code in cooperation with fire safety experts, developers and architects to ensure full fire protection for multi-storey timber construction residential buildings as well.



Site 1-7 © beyer.co.at

Site 2 © www.schreinerkastler.at



Eurogate

Europe's largest passive house residential estate with 1,700 apartments on 215,000 m² is currently being built on the periphery of Vienna.

The Aspanggründe grounds, the site of the new estate, are located on the premises of a former train station. Plans include a Holocaust memorial to remind residents and visitors that here was where people were deported from during the National Socialist regime. The estate is being built surrounded by extensive park areas and open space. It is well connected to the city centre through underground and commuter trains. Trams operate in the near vicinity.

Apartments are subsidised housing with mixed utilisation. Schools, kindergartens and enterprises with a total of 8,000 jobs are part of the project.

Construction start 2008 - completion 2016

欧州城

维也纳的市郊规划了欧洲最大的被动式能源建筑：在达21,5万平方米的面积上建造了一千七百套房间。

此处原来是旧火车站，二战时法西斯统治者就是在此把犹太人等受害者遣送到集中营，因此计划将在新建筑周围设立犹太人受难纪念标志。

建筑周围有许多公园和休闲空间。交通方便，有轨电车，地铁、火车等都能直达市中心和机场。

迁居工程将受到市政府的补贴，并同时新建学校、幼儿园，它将提供8000个就业机会。

2008年开始，2016年全部完成



Site 3 © Sebastián Sculler



Site 1 © Feichtinger Architects

建筑公司 — Developers:

Heimbau, ÖSW, Sozialbau, BAI, ARWAG
(non-profit building companies)

建筑家 — Architects:

Master plan:
Architekt Sir Norman Foster

– Site 1:
Heimbau/
Feichtinger Architectes Wien/
Idealice

– Site 2:
ÖSW Österreichisches Siedlungswerk/
Architekten Krischanitz & Frank/
Anna Detzhofer

– Site 3:
Sozialbau/
s&s Architekten Schindler & Szedenik/
Anna Detzhofer

– Site 5:
BAI Bauträger/
JKA Johannes Kaufmann Architektur/
Land in Sicht

– Site 6:
ARWAG/
Albert Wimmer ZT/
Auböck & Kárász landscape architects
and architects

– Site 7:
BAI Bauträger/
Tillner & Willinger ZT/
Land in Sicht

地址 — Address:

Aspangstraße/Landstraßer Haupt-
straße/Landstraßer Gürtel/Adolf
Blamauer, 1030 Vienna

欧洲城第一工程建筑建造了三幢楼，共71套社会福利租房。窗户全部采用三层玻璃，加上建筑外部的环形过道和屋檐形成的阴影，从而使建筑具有冬暖夏凉的效果。由于建筑安装了高效能通风系统和完美的隔音材料，使建筑内部空间更趋舒适、完美。

The project on building site 1 consists of three parts for a total of 71 subsidised rental apartments. Three-pane glazing has been used to keep temperature losses to a minimum. This, in combination with the shadowing provided by loggias and arcades makes the project fit for summer temperatures. Energy efficient ventilation offers high living comfort, perfect soundproofing and ideal room air quality.

发展商 — Developers:

Heimbau Gemeinnützige Bau-, Wohnungs- und Siedlungsgenossenschaft
Tannengasse 20
1150 Vienna/Austria
tel. +43 1 98171
fax. +43 1 98171 69
office@heimbau.at
www.heimbau.at

Heimbau是一组非营利性的建筑合作社
Heimbau is a non-profit building cooperative.

本公司的建筑绿化设计包括共用的人行道和停车场，并有分开的私人休闲空间。立体的绿化环境，包括当隔墙的藤本植物，都起着不小的环保作用。公共花园还设计了供不同姿势休闲的坐位，以及儿童游乐园和青少年聚会点。

我们为城市的发展、绿化而设计。明天的都市规划，今天的空间改造，是本公司的一个座右铭。

Public through paths and park areas add to residents' wellbeing as does distinction between community areas and private retreats. Vertical and horizontal greening of the housing estate improves its microclimate. Climbing plants provide additional green space and divide up space. Loosely arranged seating and reclining areas, playgrounds for children and youth are used as meeting points or retreats.

Conceiving tomorrow's city, changing its stock, establishing references are some of our guiding principles at idealice. Classical fields of activities include urban development areas, green zones and parks.

IDEALICE - 环境规划科技办公室
idealice - technisches büro für landschaftsplanung
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tel/fax. +43 19206031
office@idealice.com
www.idealice.com



© Idealice



Site 6 © A. Wimmer ZT GmbH



Site 5 © beyer.co.at



Site 7 © ZOOM visual project

被动式能源建筑包括南部宽大的采光窗结构、通风系统、阳台和封闭式阳台，由于建筑表面采用了高密度的建筑保温材料，所以整幢建筑具有高效的阳光储藏能力。

“Passive house” : Optimized solar gain, orientation to the sun, highly insulated, air tight, ventilation system, buffer zones. Loggias and balconies form the urban front to the building and create an interesting play of light and shadow.

此项目获得了奥地利生态、生物研究院颁发的环保证书。IBO ECOPASS

本公司主要着眼于城市规划、公共空间、建筑外部设计，并使用环保建筑材料，已经完成的项目包括住房建筑和其他用途的建筑。

Emphasis at the architects office is placed on projects in public space, urban planning studies and utilisation concepts, as well as exterior design, functional buildings and housing construction, also using ecological construction elements.

ARCHITEKTEN TILLNER & WILLINGER ZT GmbH

建筑师 — Projektarchitekt:

Architekt Alfred Willinger

Margaretenplatz 7/2/1

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tel. +43 1 3106859

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www.tw-arch.at



© Lautner

瓜型住房

瓜型住房包括5栋福利住房建筑，共138套，总面积达3061平方米。其中有四栋是按低能耗建筑标准建造的，而剩下的第五栋27套房间的能源消耗为零。

建筑群体拥有各种公共设施，包括排球场和顶层的蒸汽浴。建筑位置在市郊，接近原来的村庄。

被动式能源建筑-“瓜”

被动式建筑使用从特殊节能窗户进来的太阳热量和家庭设备散发的热量，从而减少各个房间家用电器的耗能。建筑的形状像水滴，向北的外面面积最小。瓜型建筑所用节能科技还包括给建筑添加保暖框和釉面。

绿化：瓜型

建筑周围保留了原有的果树，包括原有的“野地”。枞树、果树、树篱等绿化显示着花园建筑的各种有机形状。底层各个房间都有私人花园，也有共用的“玫瑰岛”和20种丁香枞树。

2003年4月开始设计，建造时间 2007年年底至2007年秋季

Living in the Orchard

Living in the Orchard consists of 5 subsidised rental buildings with 138 rental apartments covering a total of 3,061 m² net residential area.

4 buildings were raised as low energy houses, the fifth, the Melon, is a zero energy house with 27 apartments.

The buildings offer a number of community facilities, a beach volleyball court and a sauna with roof terrace. The estate is located on the city's periphery, between the old heart of the village and a thoroughfare, in a partly built-up area which has maintained some of its village character.

Passive House - Melon:

“Passive” use of the sun's radiation through windows and the heat yielded by appliances and residents. Efficient technology minimises electricity requirements for household appliances.

The building has a drop-shaped floor plan, the smallest surface facing north.

An insulating case makes sure no thermal bridges are created. Special glazing saves heating costs.

Green area: Orchard shape, most of the old trees were kept, a fenced-in “wilderness” was left to its own devices. Hedges, fruit trees, bushes, “floating green”: organic formations embedded in a park landscape. Tenant gardens were planted in front of the ground floor zones.

New construction: subsidised housing

Start of planning: April 2003
construction time: late 2005 - autumn 2007

建筑公司 — Developers:

Buwog - Bauen und Wohnen GmbH

建筑家 — Architects:

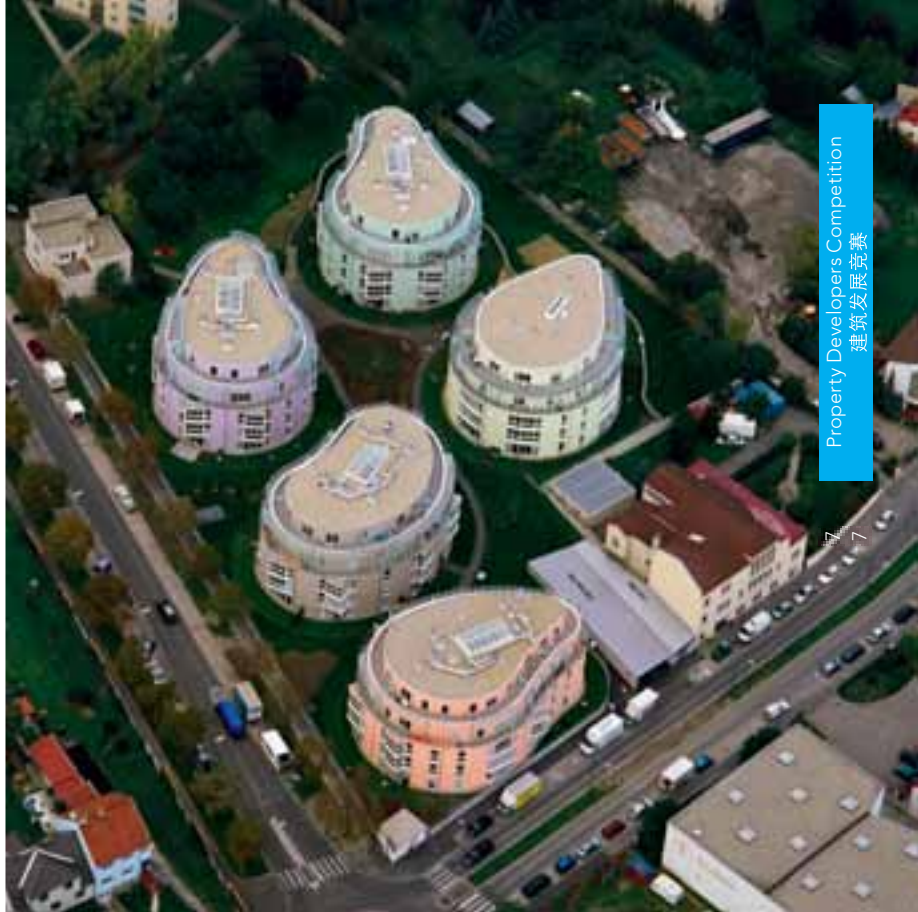
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www.lautner.cc
office@lautner.cc
Cooperation: Michaela Pammer,
Theo Zoller, Arzu Sariyar,

参与企业 — Companies:

Contractor: Universale Hochbau
Building physics (passive house):
Schöberl & Pöll
Windows (passive house):
Fa. Stefan
Building services (passive house):
Vasko + Partner

地址 — Address:

Dreherstraße 66,
1110 Vienna



© Alpine Bau AG



© Lautner

IBO - 奥地利生物、生态研究院顾问有限公司IBO

IBO 是奥地利生物、生态研究院的建筑顾问公司。我们专门研究建筑学的生态问题和生活健康质量问题。 IBO

- 评估建筑物和建筑材料
- 解决建筑物的保暖问题和空间音响问题
- 与设计人员和建筑工程人员合作
- 作出建筑物的质量鉴定证书

IBO-Austrian Institute for building biology and ecology, GmbH

IBO is the private consultancy agency of a research institute by the same name . IBO concentrates on "ecological and healthy building and living" and on consultancy in the field of construction physics.

The service is based on the research activities of the institute and includes:

- assessment of construction materials and buildings
- thermal and acoustical optimisation for buildings
- consultancy for designer, developers and builder
- certification of buildings

IBO - 奥地利生物、生态研究院

Austrian Institute for building biology and ecology (IBO)

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fax. +43 1 3192005 50
www.ibo.at
ibo@ibo.at





© Reinberg



© Reinberg

维也纳23区的新被动式能源建筑

维也纳市政的GESIBA建筑公司建造了22套房间的社会福利被动式能源建筑,包括阳台、住户的私人花园、自行车库和儿童游乐场,并可在建筑内部直接搭乘地铁。

被动式能源建筑: 外墙的厚保温层可储藏大量的太阳能,并建造公共的立式太阳能发电机以及用来供暖气、热水的水库。每个房间的温度都可以自由调整,并在窗户开启的时候,暖气将自动关闭。

每年的暖气能耗为10 kWh/m²

入住房价大约 € 490,-/m²

每月房租大约 € 5,84/m²

2003年开始设计, 2006年四月至2008年四月建成

New Passive House Estate in Perfect Location

A passive house built as subsidised housing with 22 apartments with terraces, loggias and tenant gardens, bicycle garages and children's playground. The building is located in the densely built-up city with direct access to the underground net.

Passive house residential estate: thick external heat insulation stores passively generated solar energy, there is a vertical collector for joint solar energy generation and a reservoir to support heating and ensure hot water supply. The air temperature can be set individually for each room, opening windows automatically switches off the heating.

Includes photovoltaic elements.

Specific heating requirements are 10 kWh/m² annually.

Costs for tenants: envisaged financing contribution approx. € 490,-/m²,
Envisaged rent including overheads and VAT approx. € 5,84/m²,

Start/end of planning: 12. 2003 - 04. 2006,
construction: 04. 2006 - 04. 2008

建筑公司 — Developers:

GESIBA, Vienna

建筑家 — Architects:

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Lindengasse 39/10
1070 Vienna/Austria
tel. +43 1 5248280
fax. +43 1 5248280 15
architekt@reinberg.net

参与企业 — Companies:

建筑物理 Building physics: Stehno-Ertl
窗户设计 Windows: Ertl
太阳能发电机 photovoltaics: Sed
建筑物理结构 outdoor physical structure: Allbau
物业维修 Building services: Phitb
电业管理 Electricity: Seipelt

地址 — Address:

Schellenseegasse 5+5a,
1230 Vienna

Reinberg Architects 建筑设计简介 — Office Profile

建筑师REINBERG非常重视环境保护、创新的建筑造型以及提供节能效率的科技。

Reinberg architects studio focuses on ecological and experimental building, using ecological concepts and maximum energy efficiency technology to create new architecture.

Austria's Largest Passive House Built on the Periphery of Vienna

The passive house on Roschégasse comprises 114 apartments on a net residential area of 10,000 m². The apartments come with either tenant gardens, balconies, terraces or loggias. Common areas and corridors have natural lighting coming in through the glass facades.

The housing estate was the largest of its kind internationally at the time of completion. It is the epitome of living quality and comfort combined with low energy consumption for hot water and heat generation. Apartments are aerated mechanically by heat exchangers (approx. 90 % heat recovery). Before entering the apartments fresh air is preheated through geothermal probes (approx. 100 m deep) transferring terrestrial heat onto the air. Naturally windows can be opened at all times. Incoming air and water are heated by a small heat pump extracting heat from waste air.

Heat and hot water are produced decentrally involving no costs for either.

The photovoltaics plant is a visible sign of sustainability and renewable energy supply. It helps residents to identify with the ecological concept behind the project.

Treberspurg & Partner Architects 建筑设计简介 — Office Profile

本公司主要参与建筑造型创新以及低能耗和被动式能源建筑工程，从而提高生活质量和环境保护。

我们不仅设计了许多廉价的、高效率的大型建筑工程，同时也参与了建筑维修工程，包括旧建筑的现代化节能以及历史性旧建筑的改造。

1999年我们获得了国际建筑师协会(UIA)颁发的Sir Robert Matthew 奖

Our team of architects is primarily interested in planning and constructing projects which, because of their sophisticated design, low energy consumption and passive utilisation of solar energy, contribute towards relieving the environment and raising the quality of life.

As general planners we have been able to handle large building projects efficiently and economically. We have also participated in the renovation of buildings, by modernising old housing stock and energy rehabilitation, as well as through numerous additions and reconstructions of historical buildings.

In 1999 we were awarded the international "Sir Robert Matthew Prize for the improvement of the quality of human settlements" issued by the UIA (Union International des Architectes) for our commitment in this field.



© Treberspurg

维也纳市郊建造了奥地利最大的被动式能源建筑

这幢有114套房间的建筑，面积达一万平方米。每套房间都有花园或阳台。建筑内的走廊和公共空间均用自然采光。

到目前为止它是世界上最大的被动式能源建筑。在符合舒适生活质量要求的同时，降低热水和暖气的费用。房间的通风系统使用热交换器。新鲜空气经过地下100米的地热探头引到建筑内部，并使用开启式窗结构。

暖气和热水的能量都来自于建筑本身排放的废气，并在建筑里无偿地循环运作。

太阳能电机是可持续性能源的象征，并将住户和工程的环保概念融为一体。

建筑公司 — Developers:

Altmanndorf and Hetzendorf
Gemn. Siedlungsgen.m.b.H
(non-profit settlement company)

建筑家 — Architects:

Treberspurg & Partner ZT GmbH
Penzingerstraße 58,
1140 Vienna / Austria
tel. +43 1 8943191
office@treberspurg.at
www.treberspurg.at

参与企业 — Companies:



PORR为奥地利最大的建筑公司之一，员工大约1.2万人，2007年的生产总值超过27亿欧元，并提供多种服务，包括建筑工程、筑路工程和隧道建造。

With a productive capacity exceeding EUR 2.7 billion and an average workforce of approx. 12,000 in 2007, the PORR Group is one of the biggest and most established construction groups in Austria. The PORR Group offers a complete range of services covering engineering, project development, road and tunnel construction.

PORR
Absberggasse 47
1103 Vienna / Austria
tel. +43 5 0626 0
fax. +43 5 0626 111
zentrale@porr.at
www.porr.at

地址 — Address:

Roschégasse 20/Pantucekgasse 14
1110 Vienna

建筑公司 — Developers:

北部建筑 Bauplatz Nord:
WE Pro Bauträger
南部建筑 Bauplatz Süd:
Passivhaus Kammelmweg Bauträger

建筑家 — Architects:

北部建筑 Bauplatz Nord:
s&s Architekten
Schindler & Szedenik
Esterhazygasse 18a
1060 Vienna / Austria
tel. +43 1 5872624 0
fax. +43 1 5872624 10
office@schindler-szedenik.at
www.schindler-szedenik.at

南部建筑 Bauplatz Süd:
Johannes Kaufmann Architektur,
Sägerstrasse 4
6850 Dornbirn / Austria
tel. +43 5572 23690 0
fax. +43 5572 23690 4
office@jkarch.at
www.jkarch.at

参与企业 — Companies:

Surveyors :
arsenal research
Doris Fröhlich
Project Development
Giefinggasse 2
1210 Vienna / Austria
tel. +43 50550 6220
fax. +43 50550 6590
doris.froehlich@arsenal.ac.at
www.arsenal.ac.at

Systems and components of
electrical power generation and
distribution
Efficient and sustainable thermal
energy systems

Construction planning:
Mischek Bauträger
Ungargasse 64
1030 Vienna / Austria
tel. +43 1 36070
office@mischek.at
www.mischek.at

地址 — Address:

Kammelmweg 10,
1210 Vienna



© M.Hierne

木结构混合建筑

两栋社会福利住房建筑，共87套。所有的套房都设有阳台和小花园。建筑花园内有多瑙河边的湿地风情。屋顶上已设立绿化。附近运动场所以及黑湖潭等多瑙河周边景区都可以步行或骑自行车到达。

这栋建筑有共享大厅，少年俱乐部、公用洗衣机、公用体育锻炼空间，大型公用冷藏设备，自行车修理部等等。

被动式能源木结构混合建筑，不用另设散热装置，只需要低能耗建筑暖气能源的三分之一。

此建筑的最大优势在于它能慢慢沁入已暖好的外部新鲜空气，当然包括防柳絮和尘埃的过滤器。

符合维也纳大学环境保护建筑学研究所的标准

自来水经过Grander标准的方法处理。

花园绿化另有水井，不需饮用水浇灌。

位于维也纳郊

两栋建筑均于2007年秋天入住



© M.Hierne

Composite Construction – Building Ecologically Saves Heating Costs

In the social subsidised housing sector 87 owner-occupied dwellings were built on two sites, using the timber composite construction method.

All of the apartments on both sites come with either loggia, terrace or tenant garden. Remains of a former wetland were preserved on the site. The flat roof was landscaped extensively. There are pedestrian and cycle paths to the nearby “Schwarze Lacke” recreation area and the neighbouring sports facilities.

The building offers a number of community areas, a large glazed hall intended for communication purposes, a youth room, a utility room, a room for storing fruit and vegetables at naturally cool temperatures, a bicycle repair shop, a community room and a fitness room.

Passive house built with the timber composite construction method – the building makes do with approximately one third of the heating energy required by low energy houses without radiators having to be installed.

It offers:

- preheated fresh air streaming in gradually, even during long periods of absence
- pollen and dust filters to prevent allergies

Drinking water is activated using the Grandeur principle.

A separate well was dug to irrigate green areas and thus save valuable drinking water.

“Ecopass” issued by the Institute for Construction Ecology and Economy

The project is located on the city’s periphery.

Construction site north (B): new construction, ready for occupation: autumn 2007

Construction site south (E): new construction, ready for occupation: autumn 2007



© P.Good Architekten



Houses That Connect

Car-free residential area with net-like connecting paths. Two-storey houses at crossroads and garden houses along the paths, all subsidised housing. Houses at the crossroads are built as passive houses, garden houses as low-energy houses.

Special emphasis was placed on community areas between the houses, with greened walls and atriums, but also on privacy for the gardens.

A series of housing types emerged, meeting the needs of different types of occupants.

Houses at crossroads are klima.aktiv houses: 16.94 kWh/m²a

Garden houses are low-energy houses: 43.96 kWh/m²a

Additional ecological measures:

IBO Ecopass measuring programme (room air, sound, electromagnetics, brightness and insolation, air tightness)

Extensive chemicals management using certification marks.

High water efficiency of water appliances, precipitation water seepage on the site
Landscaping of roof areas, nesting places for black martins, boxes or boards for bats.



建筑公司 — Developer:

GEWOG
Gemeinnützige Wohnungsbau
Ges.m.b.H.
(non-profit housing construction)
www.nh-gewog.at

建筑家 — Architects:

P.Good Architekten A-1070 Wien
Kirchengasse 48/5
1070 Vienna / Austria
tel. +43 1 8778333
fax. +43 1 8778333 30
praschl@pgood.at
www.pgood.at

空间设计 — Planning of open space:

Plansinn GmbH A-1040 Vienna
www.plansinn.at

建筑物理结构调整 — Structural physics:

Tichelmann
3032 Eichgraben / Austria
tichelmann@aon.at

地址 — Address:

Kagraner Spange,
Vienna

连接的建筑

与公路隔开的居住区有几条非机动车道，它的路口有两层的建筑群，一边是花园建筑，所有建筑均为社会福利住房。路口的楼房是被动式能源建筑，而花园楼房是低能耗建筑。

建筑之间都有公共绿化带，但是也保留了私人花园。

这一系列的不同建筑适应了各个市民家庭的居住需求。

小径路口的被动式能源建筑: 16.94 kWh/m²a

花园楼房的低能耗建筑: 43.96 kWh/m²a

其他环保措施

奥地利生物、生态学研究院建筑调整系统(室内空气、声音、电磁学、照明度和保暖、空气密度)
化学品管理鉴定证书制度

雨水使用系统和供水设备的节水管理。

屋顶上部的绿化包括鸟类和蝙蝠的栖息地。

P.Good Architects 建筑设计简介 — Office Profile

P. GOOD建筑专家组自2007年以来一直参与维也纳的城市更新工程。对我们来说，建筑的意义和结构，除了表面造型，多半在于社会、经济以及生态等方面。

建筑工程中的问题就是对我们的挑战，我们使用的建筑材料都按客户的需求，在每次不同的工程都发明和应用了新的科技方法，而建筑造型则是整个工程的最后结果。在实施工程计划的过程中，我们严格遵循建筑原理，但并不是循规蹈矩，而是充满想象。

Besides working in the architect's office p.good and their interdisciplinary team have been handling urban renewal projects in one of Vienna's municipal districts since 2007. It is through social, economic and ecological aspects that architecture is given a structure and a meaning beyond the superficial aesthetic aspects.



Innovative Passive House in Vienna

This housing estate has model qualities, having evolved from a research project for passive house construction which the participating architects engaged in. A total of 39 subsidised, social rental apartments were built in the course.

All apartments have large windows facing south and small ones facing north and have lighting coming in from two sides. They come with balconies, terraces at roof level and several community facilities.

Energy requirements for heat: 11.37kWh/m²a at a cost of 41.31 EUR/m² due to passive house technology

Certificates:

Passivwohnbau nach Passivhaus Institut. (passive house technology according to Passivhaus Institut) „1.000 Punkte klima:aktiv Passivhaus in Massivbauweise“ (1,000 points klima:aktiv solid construction passive house)

Start of construction: late 2005 – ready for occupancy: late 2006

维也纳14区的新被动式能源建筑

这幢样板建筑是几位建筑师共同参与的结果，共完成了39套社会福利租房。

每套住房南北都有采光。南面的窗户设计比北面的相对要大。新建筑包括阳台、建筑顶部的露天花园以及各种公用设备。

暖气能耗: 11.37kWh/m²a, 一年只有41.31 EUR/m²的费用。

本建筑工程获得了被动式能源建筑研究院颁发的鉴定证书。

2005年年底开始建造, 2006年年底入住



Franz Kuzmich Architects 建筑设计简介 — Office Profile

建筑家F.Kuzmich的设计工作包括城市发展规划、城市设计、组织建筑竞赛、城市更新、住房建筑研究以及住户的参与。Participatory housing construction, housing construction research, urban renewal, rehabilitation of residential buildings, design for cities, urban development planning, organisation of procedures for architects' competitions



Vasko+Partner 工程顾问有限公司 — The General Consultant

VASKO+PARTNER工程顾问有限公司所提供的服务包括参与客户工程设计、经济、决策的具体化过程。在满足客户的构想, 需求的同时, VASKO+PARTNER工程顾问有限公司为客户研究工程效率和耗资问题。

We offer advisory services including decision-making, assistance in implementation and solving planning, economic and all other issues pertaining to the Client's project. In close cooperation with the architects the general consultant additionally studies the feasibility, efficiency and cost effectiveness of a project whilst implementing the Client's ideas and requirements.

Project Management 项目管理

General Planning 总体规划

Building Physics 建筑物理

Structural Design 结构设计

Mechanical, Electrical and Plumbing 机电设计、管道装置

建筑公司 — Developers:

HEIMAT ÖSTERREICH non-profit housing and settlement company

建筑家 — Architects:

Architekt Franz Kuzmich
Klagbaumgasse 9
1040 Vienna/Austria
tel. +43 1 5813565
fax. +43 1 5813568
www.architekt-kuzmich.com

In cooperation with
Schöberl & Pöll OEG
structural physics, consulting and
research specialised in multi-storey
passive house construction.

建筑物理结构研究顾问公司
多层被动式能源建筑工程

Ybbsstraße 6/30
1020 Vienna/Austria
tel. +43 1 7264566 0
fax. +43 1 7264566 18
office@schoeberlpoell.at
www.schoeberlpoell.at

参与企业 — Companies:

总策划 (包括花园):
General planning (incl. garden):
Schöberl-Pöll
电力供给: Energy: Wienstrom

建筑服务、建筑监督:
VASKO+PARTNER 工程师有限公司

Building services, construction
supervision:
VASKO+PARTNER
INGENIEURE ZT-GmbH
Grinzing Allee 3
1190 Vienna/Austria
tel. +43 1 32999 0
fax. +43 1 32999 333
office@vasko-partner.com
www.vasko-partner.com

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Utendorfsgasse 7,
1220 Vienna

多瑙河湿地环保建筑

五幢楼房中的四十六套住房采用了零能源、被动式能源建筑方式。

木结构建筑由于使用了廉价的建筑材料而得到了市政府的补贴。大规模的木质框架结构不但节省了大量的能源，而且营造了一种温馨的建筑气氛，已完成的木结构建筑部分使工程进度大大加快。建筑的设计非常适合多瑙河湿地周围的环境，比如儿童喜欢的人造沙滩。

木材结构的具体简介

多层木材结构建筑的厚度不超过40厘米，而且非常轻便。

新的试验计划包括利用建筑内外的不同气压，从而弥补了木材的裂纹缺陷，此外还有一个保温试验计划。木材结构住房的建筑音响效果远远超过社会福利住房的标准。

总建筑面积(包括阳台): 3.900 m²

这个被动式能源建筑是未来建筑的样板。
每年能耗 13.00 kWh/m²

获得了被动式能源建筑证书。



© Mantler-Repro



eco-living in the Danube wetlands

This residential estate consists of five buildings with 46 apartments and was built with the knowledge drawn from a series of research projects on zero-energy or passive houses.

The timber construction method was applied, taking into account the economic conditions set by housing subsidies. Requirements for high energy standards and optimum ambient climate were achieved economically using large-scale framework construction. Prefabricated cross-laminate timber elements ensured a smooth and speedy construction process. The estate is located in the Danube wetlands. Great emphasis was placed on creating harmony between exterior and interiors. The exterior was modelled on the surrounding wetlands (sandy areas put to many uses by the children).

Timber construction in detail

- light, multi-shell timber construction with a total construction width of 40 cm.
- airtight construction measured and tested with the 'Blower Door' method: excess or low pressure is formed in the apartments. Any remaining cracks or leaks are detected and closed. Airtight but not steam tight. Thermography is used for further testing
- sound ranging: modern, multi-shell wood constructions exceeded values required for subsidised housing.

Total net residential area: 3.900 m² incl. loggias
Passive house, demonstration object "house of the future"

Energy parameter 13.00 kWh/m²a
Certificate: klima.aktiv passive house

建筑公司 — Developers:

Familienhilfe – non-profit construction and settlement company
1220 Vienna / Austria

建筑家 — Architects:

Architekturbüro
DI Wener Hackermüller
Steckhovengasse 17/3
1130 Vienna / Austria
tel. +43 1 7158182 0
fax. +43 1 7158182 11
office@hackermueller.at
www.hackermueller.at

地址 — Address:

Esslinger Hauptstraße 17
1230 Vienna

Wener Hackermüller Architects 建筑设计简介 — Office Profile

公司着重于: Architects studio with emphasis on:

- 多层被动式能源建筑 — Multi-storey housing construction using the passive house method
- 木机构建筑 — Timber construction
- 质量管理 — Quality management
- 公共空间 — Open spaces
- 建筑的可持续性 — Sustainability

- | | |
|-------------|---|
| 对用户 | 首期能源效率(在建筑结构过程中, 考虑到生活循环因素)
节省自然原料(建筑和结构的生物化、水源管理、运输管理) |
| For users | Primary energy efficiency (during construction and maintenance, life cycle costing)
Saving resources (building and construction biology, water management, transport management) |
| 对社会 | 健康的生活环境(建筑和结构的生物化、室内小环保、静电感应、风水)
日常运作(建筑在费用可承受的情况下多样化地得到利用) |
| For society | Healthy living environment (building and construction biology, indoor climate, electromog, geomantics)
Everyday functionality (flexibility and open ways of utilisation, affordable overall costs incl. maintenance) |



© W. Hackermüller

创新的木材结构建筑

建筑福利住房是为了满足居民的不同需求，它包括儿童成长的自然环境和邻里沟通以及私家花园。

四五层楼的建筑因为花园和太阳能的原因，都设计朝南。封闭式天井使建筑的走廊、地下室和公共空间都有自然采光。现代木材建筑采用的是已完成的木材结构部件。

建筑蓝图完全符合被动式能源建筑的标准。建筑内的空间可以按住户的需求自由分割。而且离公共交通网很近。

本项目获得了被动式能源建筑证书。

78套住房
建筑总面积 6653 m²
每年能耗: 12.00 kWh/m²



kreativ.aktiv = holz.passiv – creative.active = wood.passive

The estate was built for children to grow up surrounded by nature, for residents to have their own gardens and design them individually, for neighbours to communicate with each other in the community areas furnished for the purpose and, last but not least, to contribute towards environmental and climate protection, all of which in the subsidised housing sector.

The four- to five-storey buildings consistently face south for optimum solar heat generation, which means they have their living and outdoor areas facing south. Community areas have natural lighting all the way down to the basement. All rooms are arranged around a huge glazed atrium.

Modern timber construction using prefabricated elements was applied for this project.

The ground plans for apartments were drawn in accordance with the passive house construction method. They have been left flexible so that apartments can be parcelled up or joined.

The estate has access to public transport.

Certificate: "klima.aktiv passive house"

78 apartments
net residential area: 6,653 m²
energy parameter: 12.00 kWh/m²a

建筑公司 — Developers:

Neues Leben

建筑家 — Architects:

Architekturbüro
Wener Hackermüller
Steckhovengasse 17/3
1130 Vienna / Austria
tel. +43 1 7158182 0
fax. +43 1 7158182 11
office@hackermueller.at
www.hackermueller.at

参与企业 — Companies:

建筑物理Bauphysik: IBO
窗户检验Prüfungen, Fenster: Ertl
电力供给Energie: Wienstrom

地址 — Address:

Quellenstraße 9-11,
1100 Vienna