

THE SUN SHIP

An ecological model for the future



The Sun Ship in Freiburg, Germany - meaningful, secure, profitable



- 5 Foreword Rolf Disch
- 7 The Solar Settlement
- 9 The Sun Ship
- 11 Concept and Design
- 13 Technical Innovations
- 15 PlusEnergy
- 17 Location and Transportation
- 19 Team Sprit and Synergy
- 21 Floorplans and Cross-Sections
- 23 Offices in the Sun Ship
- 25 The Penthouses
- 27 The Sun Ship Fund
- 29 Awards and Prizes
- 31 Press Review





*Solar architecture
is not about fashion -
it is about survival.*

Lord Norman Foster

solararchitect
rolf disch

"The sun doesn't send us a bill – the energy revolution is possible." What German journalist and activist Franz Alt thinks of as possible is actually materialized in the Sun Ship.

With sixty individually designed PlusEnergy homes, the Freiburg Solar Settlement is Europe's most modern residential development project. PlusEnergy building also gains a new dimension from the Sun Ship, which fits optimally with the concept of the Solar Settlement.

In technical terms, we have come up with altogether new standards. For a commercial and office building, it had never before been achieved to generate maximum solar energy and at the same time reduce the consumption to a minimum. The result: energy is not a cost factor, rather it produces ancillary income.

For many that seems too utopian. But just the contrary, we have remained realistic: because such a project can only be carried out, when it fits economically. We feel committed to the highest ecological, urban planning, and aesthetic standards. That enriches the value of the real estate and the attraction for our renters.

The Sun Ship is now occupied by a selected ensemble of commercial and service companies. These firms together share the belief in sustainability and

thus profit from the image and infrastructure, team spirit and synergy of the complex.

The penthouses offer exclusive residence options above the roofs of the young and pulsating Vauban quarter, only a few minutes from Freiburg's center. Embedded in an artistically designed roof garden landscape, you are able to see out from the Black Forest across the Rhine valley until the Vosges.

The 1st Sun Ship Fund covers the expansive commercial spaces of the building. After four successful Freiburg Solar Funds, this is again the opportunity for investments, return-rate security, and ecologic ethics to be combined. With an investment in trend-setting, secure solar real estate, the individual benefit will be reflected as a common benefit for the environment and generations to come.

The Sun Ship earned a variety of prizes and awards for its architecture, aesthetics and economic innovation. We are proud to present to you in pictures and words this built piece of the future, and we hope to wake your interest for this project and our offer.

Yours,

Rolf Disch
CEO and Architect of the Solar Settlement



A dream came true: the Schlierberg Solar Settlement in Freiburg's south. Completed in 2004, today it is visited and occupied by the residents of the solar terrace townhomes and penthouses, by passers-by and visitors, and by the employees and customers of the firms of the impressionable commercial complex: the Sun Ship.

From the roof gardens on the Sun Ship you can see children playing in the traffic-less, welcoming streets between the color-happy homes and gardens. The elegant blue roofs of the community shimmer in the sun. They are made completely of solar panels. They turn every home into a power plant.

The Beginnings

The sun delivers 20,000 times more energy to Earth than humans need. Shouldn't we use an opportunity like that? For thirty years the solar architect Rolf Disch has again and again given new, original and improved answers: individual single family homes, smaller terraced townhouse ensembles oriented to the sun, and also experimental solar automobiles were all created over time.

Photovoltaic and housing technology were further developed, and then the time for a flagship project had arrived: the Heliotrope, the world famous, cylindrical residence of the architect, which physically rotates with the pattern of the sun. All these experiences should now go towards an entire residential, commercial, and even urban planning project ...

Today

The Solar Settlement is the answer to three questions. What is ecologically, solar- and energy technically feasible? What is wished for aesthetically and urban planning-wise? And finally, what is economically realistic? These questions were answered, and the innovative power of the design idea was quickly recognized. The community was built as a project of the EXPO 2000.

The Solar Settlement is an ensemble of multistory and a commercial building, the Sun Ship, with retail, clinical practices, and office space, which fulfills various functions for the solar estate as well as the equally newly built "Vauban" quarter. Sixty solar residences divided upon 11,000 m² – including nine penthouses – with together 7,850 m² floor space. The Sun Ship, flanking the west edge of the property, seals the community in with 1,200 m² of commercial space and 3,600 m² of office space.

11,000 Square Meters of the Future

Even in respect to the financing and investment options, new surfaces were scratched with the Solar Settlement project. There are solutions, which are ethical and ecological, and which are economically profitable at the same time. We want to demonstrate what is possible and necessary for our future, from the Sun Ship, a PlusEnergy commercial building.

From the roof gardens of the Sun Ship you see, blue and beautiful, the shimmering solar roofs of the Solar Settlement. Every house a solar power plant, that generates more energy than it consumes. And you can see kids playing on the pathways between the bright colored homes and gardens.



THE SUN SHIP



When there is nobody left to elevate the trivial into the poetic, then you will hardly be able to speak of architecture any more.

Peter Behnisch, architect

The Sun Ship in Freiburg / Germany – an extraordinary building which offers you extraordinary opportunities:

Functionally

... the Sun Ship meets with the highest standards and the requirements of a variegated economic utilization. As a services centre for the internationally renowned Solar Settlement in Freiburg, it combines commerce and gastronomy on the ground floor, attractive office and medical practices space on the upper floors and exclusive penthouses, embedded into a beautiful roof garden landscape. This synthesis is already alive, it is being realised and implemented by an ensemble of sustainably managed companies and institutions. With the 2nd Sun Ship Real Estate Fund (2. Sonnenschiff-Fonds), you can profit from those synergy effects.

Ecologically

... the Sun Ship is a quantum leap in building technology. The Plusenergy House is our answer to the ecological challenges of the 21st century – a building that generates more energy than it consumes. The 2nd Sun Ship Real Estate Fund (2. Sonnenschiff-Fonds) is an investment into the future for yet another reason: Compared to conventional property, a solid and sustainable way of building with natural, high quality building materials result in a crucial plus in terms also of value stability. The fund building thus becomes even more exclusive – and your investment helps to keep the world a good place to live in even for your grandchildren.

Aesthetically

... the Sun Ship is a sign and signal which is perceived far beyond the borders of Germany and even of Europe. Striking and distinctive, yet elegant in its outline with its charmingly cheerful layout of colours, the very façade gives a promise – a promi-



se kept by the layout inside – to meaningful work, to thoughtful consumption, to exclusive living in rooms that are flooded with the light of the sun. You acquire shares of a truly unique building.

Economically

... you profit from our great wealth of experience with five previous Freiburg Solar Funds. The building, dynamically striving forward, incorporates the idea of a ship – at good speed towards a solar future. With the 2nd Sun Ship Real Estate Fund, you take a stake of one of the most innovative buildings in Europe. Combine financial security and regularly rising gains with your personal engagement for a sustainable, vital future! Get on board!



At the end of the 19th century Louis Sullivan, one of the great Chicago architects, expressed the legendary creed: "Form follows function". In the 100 years to follow, there were many styles and schools, approaches of genius and wit, yet all normally rather short-lived. But Sullivan's word remained the unchallenged leitmotif of the modern era. Especially architects who committed themselves to the ever changing findings of science and technology could not get past this word and followed Sullivan's progressive spirit.

Today, this is especially true for solar architecture, since where else would be a more indispensable obligation and orientation to technical conditions? It is no surprise, then, that it is exclusively functional aspects that also determine the use, form and aesthetics of the Sun Ship.

Form follows function." Only from the strict adherence to the necessity of economic utilization and ecological aims arises the formal outline of the Sun Ship, which, in times of grey architectural monotony, provides a signal for a vital future.

Confining

The first basic decision was one of urban planning: Since a sheltering cordon seemed to be apt for the Solar Settlement, we chose a structure that could fulfil this function: a 125 m long, continuous sonic-block along Merzhauser Street. This produces a secluded area of residential houses, as well as a prominent, solitaire building: the Sun Ship. Both of these together signalises unity and creates identification.

... and opening

To the north, only one public thoroughfare has been left out – and designed as a representative entrée. To the south a second passage, a footpath and cycle track, serves as a connection between the residential and recreational Schlierberg area and the newly built "Vauban" quarter.

Light

Our "Ship" now needed further steps in order to take shape: To make it as attractive as possible as a services centre, we chose a continuous glass façade. For the retail stores and offices, a great impression of floating transparency, of translucent airiness is created. The inside impression is accordant: altogether light flooded rooms.

Structuring

The unity of the façade now had to be playfully dissolved – and again the aesthetic impulse follows the functions: While the balconies, laid out over the eastern façade, together with the widely projecting fascia rather emphasize the horizontal structure of the Sun Ship,

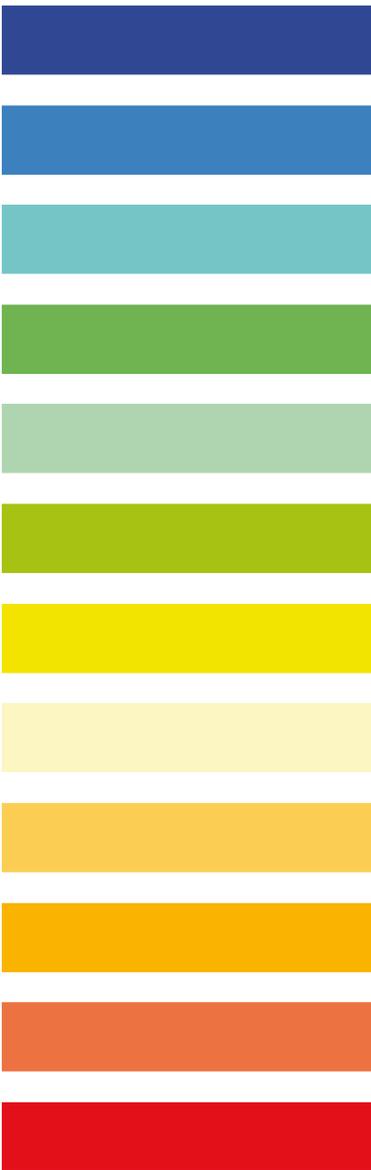
prominent vertical and diagonal elements – two lift and stairs towers and the "ship's staircases" at the eastern façade – interrupt the dominantly horizontal line of movement.

Colour

This interplay in the large-scale structuring is then replenished by means of scattered and serial elements – namely the multicoloured covers of the ventilation units. Here, "art for architecture" is not an ex post addition. Instead, the colour concept by the Berlin artist Erich Wiesner – called "the dyer" – was an integral part of the scheme from the scratch.

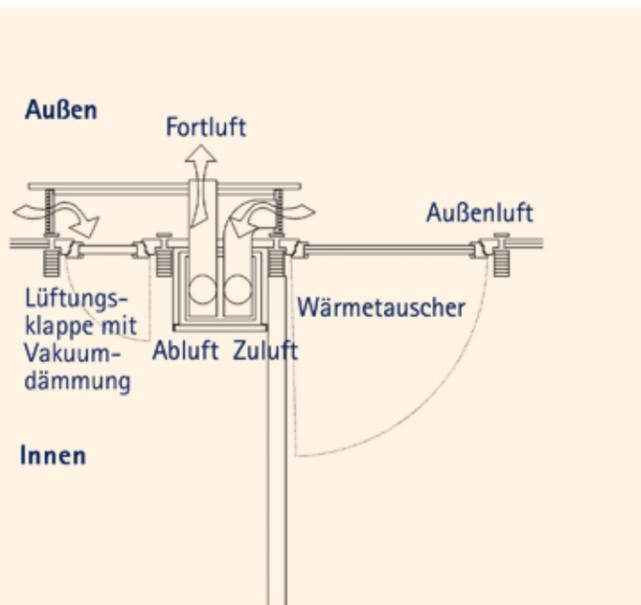
The Ship

Requirements of the renters, and self-imposed ecological, solar-technical aims, both of these together determine the formal concept of the Sun Ship. It results in a cheerful façade image with manifold forms, yet without impairing the dynamic unity. It is the idea of a ship which binds everything together. The head building, in its higher layout as "the bridge" of the ship, and the rhythmically positioned penthouses with their slanting solar panel roofs on the "sun deck" – everything talks of energy and breakup, direction and speed.



Aesthetics follows function.





Querschnitt des Lüftungssystems

The great progress into the solar age requires a multitude of architectural innovations. We have implemented the current "state of the art" of modern technology. The house as an energetic power station, this is one aspect – the other: to deal economically with the generated energy and to keep it inside the building.

Vacuum insulation

Outside walls, parapets and ventilation hatches are vacuum insulated. This guarantees ten times the efficiency than with conventional materials of the same thickness.

Activation of building mass

Building walls, ceilings and floors are in direct touch with the inside air. Thus, a part of the heat can be stored in the mass of the building structure. In summer, the effect is exactly reverse, due to night cooling.

Latent heat storage

The inside partition walls contain additional "cooling accumulators". Those latent heat storage devices change their state of aggregation at a temperature of 23 – 26 degrees centigrade. The molecules change from solid to liquid. This change absorbs energy from the rooms and has a cooling effect – without any additional energy input.

The roof as solar power station

Your own roof generates energy: On the penthouses the large scale, shimmering blue photovoltaic panels are not mounted on the roof – they are the roof. A high energy output is combined with an elegant form. Up-to-date solar technology is combined with the well-tried and old-established roof overhang, which shields off the high summer sun. But the rays of the low winter sun fall deep into the room.

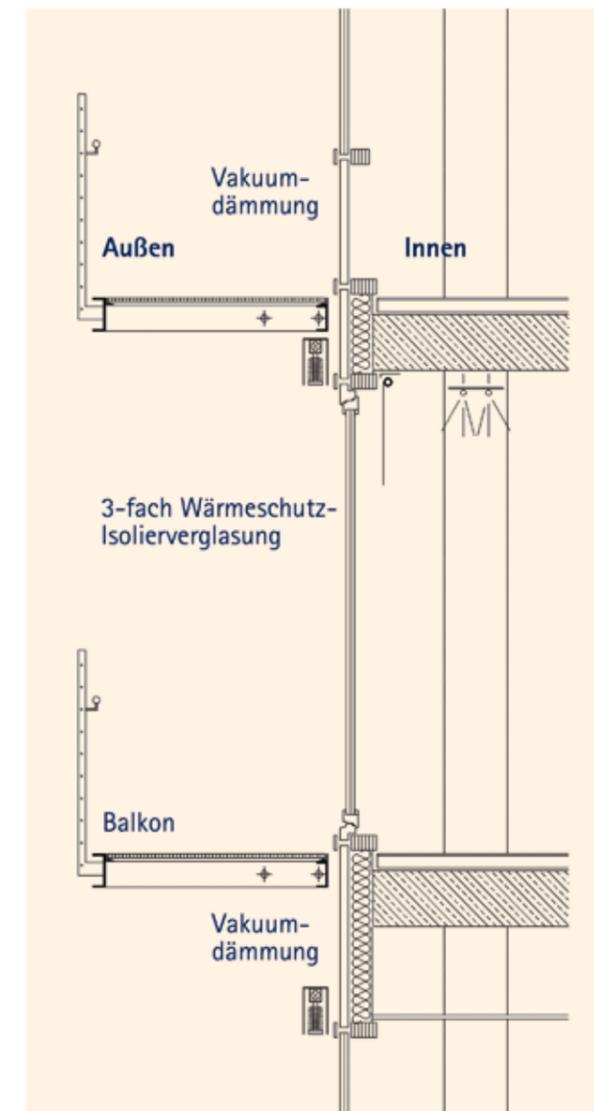
Passive heat use

The outer walls are glazed with large-scale, floor-to-ceiling special-glazed windows. They are heavily insulated, but allows a big part of the light to get into the rooms (U-value = 0.7 W/m²K, G-value = 0.6). In summer, the

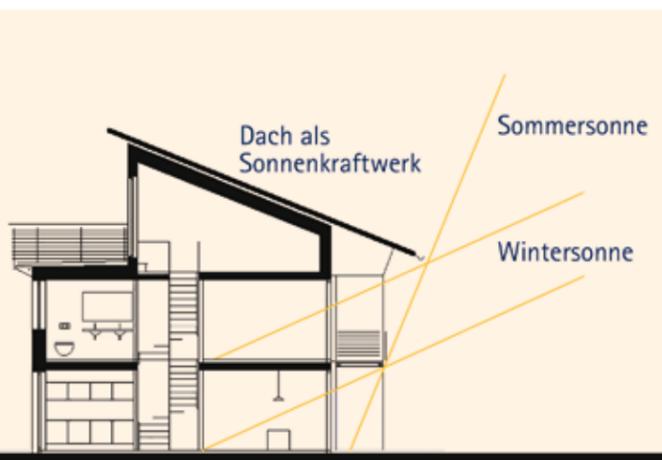
(U-value = 0.7 W/m²K, G-value = 0.6). In summer, the sun rays are screened off by the overhanging roofs and blinds. The light gets through the highly diaphanous windows, but the long-wave heat rays are held inside by an infrared reflection layer on the inner side of the window panes.

Ventilation system

The ventilation system guarantees a permanent supply of fresh air – almost without any loss of warmth. The simple and highly efficient system is hidden behind the colourful, soundproofed sheathings. For summer and winter, there is a ventilation device with heat recovery which keeps the inside temperature constant. The air flows through the grates on both sides of the sheathes directly into the rooms. In addition, room-high shutters can be manually opened and stay open for the cooling of the rooms during night time.



Längsschnitt der Fassade



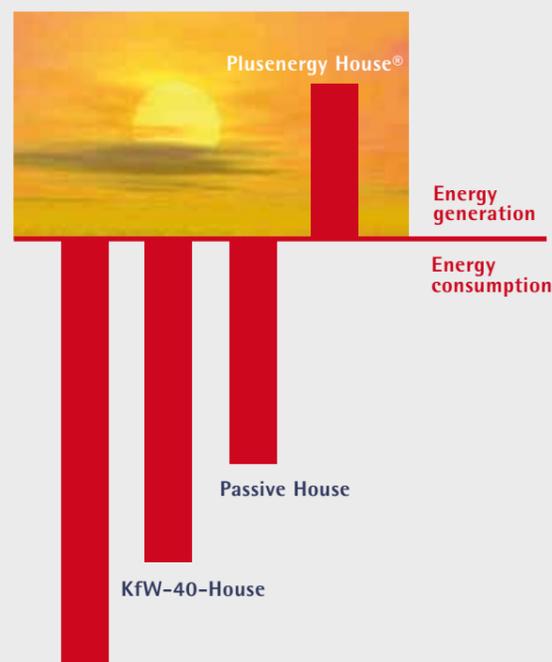
Das Dach als Sonnenkraftwerk

*Progress is the realisation of Utopias.
Oscar Wilde*



The energy balance of the Sun Ship and Solar Settlement

Contrary to conventional buildings, the Sun Ship and the houses of the Solar Settlement boast a positive Energy balance: They generate more energy than they consume.



Low-Energy-House
persuant to EneV (Status: Jan. 2008)

The energy savings and the gain of primary energy* by the Sun Ship and Solar Settlement equals about 2 Mio kWh per year. This is the equivalent of 200,000 litres of oil.

* Primary energy is the energy that must be provided by natural energy sources in order to be available as electric and heating power.

The fossil character of global economy and the impending ruin of all basic survival needs make an all-embracing orientation towards solar energy sources more and more exigent.

*Hermann Scheer,
Member of Parliament,
Alternative Nobel Prize
Laureate*

In the times of climate change and progressing destruction of the environment, the Sun Ship in Freiburg is a signal for change. With its net energy gains and efficiency in terms of resources, it is a role model to exert a significant influence. The Sun Ship: a beacon that shows us the way out of the fossil fuel era into the solar era.

PlusEnergy

The sun shines everywhere. And since it makes us independent from globally rising energy prices. That's because the Sun Ship is based on the PlusEnergy house – a building that produces more energy than it consumes. It is our first time – and the first time worldwide – for such generous dimensioned and exclusive commercial real estate to be adapted to the innovative PlusEnergy concept.

How does it work? Photovoltaic systems generate solar electric power. This is fed into the public electricity grid and paid for according to the Renewable Energy Act (EEG). A nearby cogeneration plant supplies the little remaining heat requirements out of regenerative bio mass for the Sun Ship. The calculation is as simple as this: additional costs become additional profit. This creates additional value and lower energy costs for tenants.

Sustainability

Ecology is basically economics: in times of over-use of resources and cynical games with nuclear risks, regenerative energy becomes a global economic factor. How rare, expensive, and hard-fought oil and gas truly are, we realize day by day: in world politics and in our wallet. And the price spiral will only continue to perpetuate.

In the energy sector many multinational concerns have in the meantime support for solar technology. Since long ago in Denmark and Sweden, in Brazil and Finland, up to 20% of their energy requirements are fulfilled by renewable energy sources. The PlusEnergy concept uses the economic advantages of solar energy: energy supply without transportation costs, without gigantic infrastructure, without large management expenditures. And – the sun certainly won't send a bill!

The Solar Plus

Ecology is also basically business management: you invest into an "inhabited power station," you combine the advantages of a real estate fund with those of a successful pioneering solar business. With the PlusEnergy concept the personal users, commercial tenants, residents and investors all contribute to a responsible, sustainable economy. All profit from the single profits of others.





Dachgarten mit Solarkraftwerken

Where Freiburg touches on the boundary of St. Georgen, there the wealthy Margrave country begins. And autumn arises from those heights, and my Breisgau, my islands flower before me. Late sun and the breath of vine leafs. May all stay. May nobody ever leave.



Unique location

What would Marie Luise Kaschnitz come upon today? In the south of Freiburg the Vauban quarter has developed into a pulsating part of the town, which connects the thriving quarters Wiehre and St. Georgen as well as the city centre. The Solar Settlement is situated at the meeting point of all these, in the midst of nature and culture – in short: a feel-good habitat.

Catchment area

Our commercial building fills a services gap for the newly developed quarter, it provides the infrastructure with services and shopping opportunities for a catchment area of 25,000 people – plus commuters. On top of that, many customers specially come from the city centre.

Transport connections

The road that connects with the A5 Rhine Valley motorway and the B 31 trunk road into the Black Forest are only a few kilometres away. The main station with its Intercity Express connections to all over Germany, Switzerland and France can be reached within five minutes. The Bale/Mulhouse airport is close, the airports of Frankfurt and Zurich are not far away.

Car parking is easily possible in an underground car park with 130 places. To the Freiburg Car Sharing Association, parking spaces have been preferentially allocated. A line 3 tram stop just opposite the Sun Ship ensures a direct connection with the city centre and the train station. Typically for Freiburg, a lot of people come by bike. Favourably situated as regards transport facilities, the Sun Ship can easily be reached by car, tram, bike or simply on foot.



MIETER UND NUTZER DES SONNENSCHIFFS

Manuela Accetturo
Praxis für Physiotherapie

Alnatura GmbH
Super Natur Markt

Amann & Jörgler
Wirtschaftsprüfer und Steuerberater

Aquantum - IT-Solutions

Architekturbüro Rolf Disch

Auron Healthcare GmbH

dm-Drogeriemarkt

Dr. Cornelia Speer
Praxis für Kieferorthopädie

GLS Gemeinschaftsbank

GTB - Good True Beautiful GmbH & Co. KG
Fair Trait Textilien

Ökoinstitut e.V.

Ökostrom Erzeugung GmbH

Opeker Multimedia

Particip GmbH
Consultants for development and environment

Rechtsanwalt Stephan Sattler

Ingenieurbüro Roth & Partner
Abfall, Altlasten, Wasser, Geotechnik

Solarsiedlung GmbH

Stiftung Zukunftserbe

Suisse Bar

The Sun Ship, which is committed to sustainability, lives from the careful selection of sustainable businesses. It is their ideas first that solidify the "built idea" of a responsibly thinking economy.

Identity

Spacious, modern architecture with harmonious, relaxing interiors. The Sun Ship has character. It delivers a "corporate identity" that demonstrates a business's commitment to sustainability. The Sun Ship focuses the feeling of community for the entire young, progressive quarter, for the surrounding communities and suburbs, for Freiburg, for the region. Cosmopolitan and familiar. - We'll meet in the Sun Ship...

Team Spirit

Its long list of services encompasses not only planning and consulting, rather it reaches from health and therapy to communication design. Likewise, that is how the ethically-ecologically engaged GLS Community Bank found its home here, and how the global reaching Öko-Institut e.V. (Eco-Institute) acquired the main head of the building for their headquarters. All in all: a well-balanced ensemble of commerce and service for the good of people and the environment.

Infrastructure

The synergy, born from the team spirit of the Sun Ship, is interesting for the individual commercial tenants. The reciprocal linkage of companies in the Sun Ship guarantees shorter distances for cooperation, better communication and inspiration. Due to this we have attractive offers in the same building: on the ground floor we offer Alnatura Super Natural Market with its "bio" & fair trade groceries. Adjacent one will find the quality products of dm-drug store. Or for coffees with colleagues, the midday snack or relaxing after work, the lounge atmosphere of the Suisse Bar with its fine Swiss specialties makes a great meeting point.

Economic Success

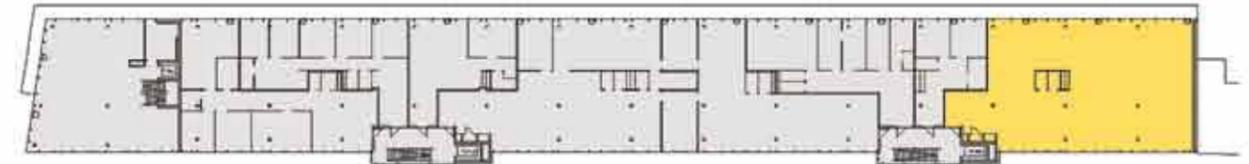
The economic success of every commercial real estate project is dependent on solvent tenants. With businesses from ecologically oriented retail and bank sectors, with ambitious gastronomy, with the widely known Öko-Institute and the many other firms and their business they were able to achieve three goals: the Sun Ship builds a powerful center for Freiburg's business, which affects well over just the surrounding area. It offers an animated environment and a functional infrastructure for more office and praxis tenants. And with the 1st Sun Ship Fund it offers an interesting investment opportunity.



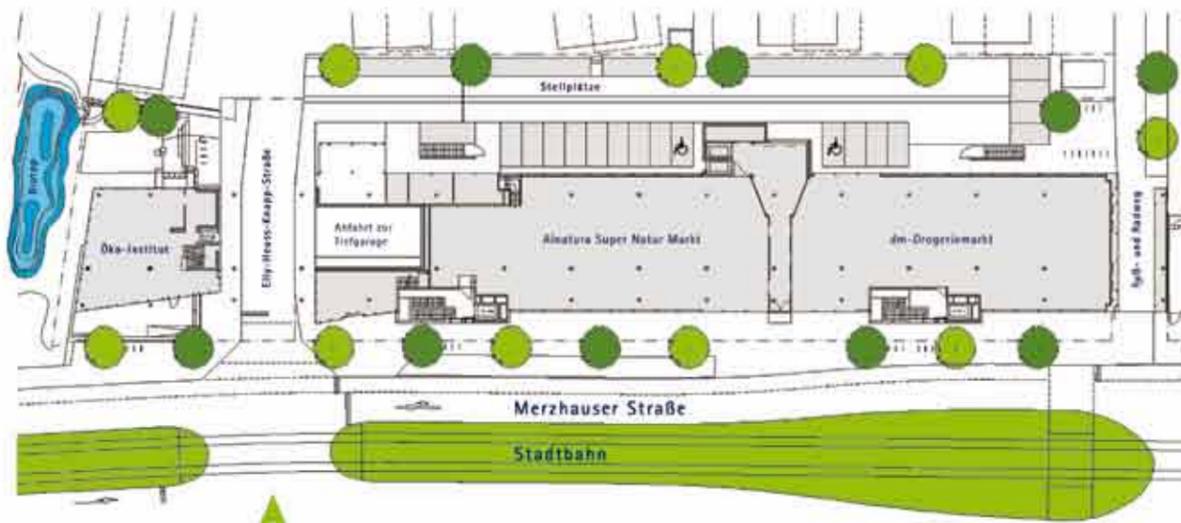
FLOORPLANS AND CROSS-SECTIONS



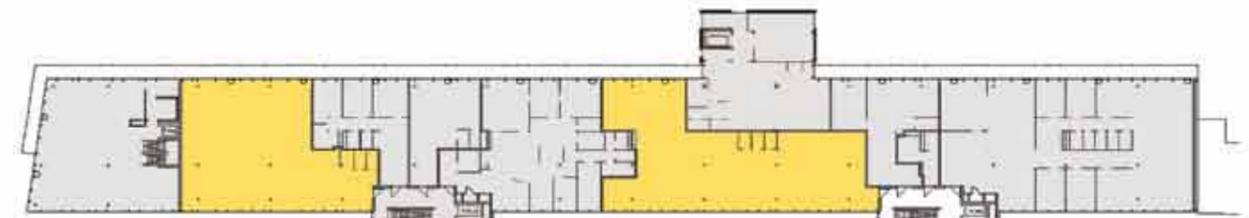
5th Floor



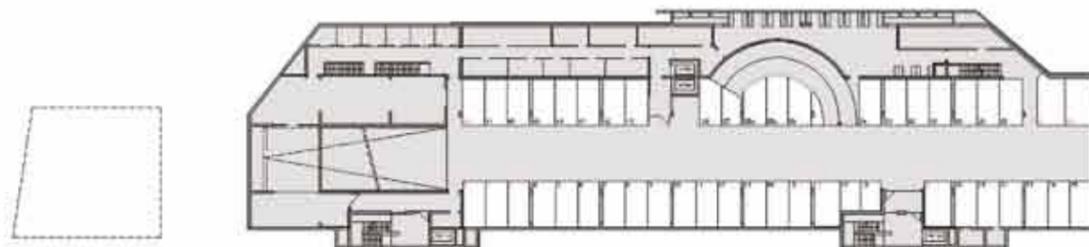
3rd Floor



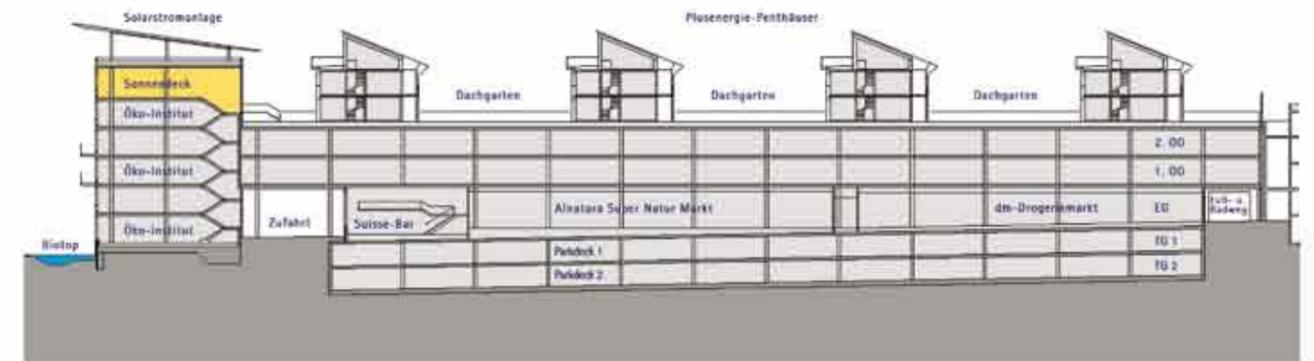
Ground Floor



2nd Floor



1st Parking Level



Long Cross-section of the Sun Ship



2nd Parking Level



The way you build is to do with quality of life. It is to do with feeling at ease and with feeling at home.

*Johannes Rau
Former German President*



The Sun Ship was the first address for sustainable businesses in Freiburg and the region. Ethical businesses who have found their place here profit from the collective image and vibrancy of the building, but also from the building advantages and the infrastructure that are offered.

Room for ideas

Flexibility, ambience, ecology – those are the design principles of the office and commercial space in the Sun Ship. A total floor space of 3,600 square meters is divided among different sized offices, so that individual needs can be accommodated. These are the rooms, in which business ideas can be realized; no back-breaking scriptoriums, rather work and living space that is representative – but remains affordable however.

Variability

The economic success of businesses in the Sun Ship remains the focus, and that is why for us the economic use and aesthetic design depend on the specifications of tenants. The variability of the rooms belong first to the architectural concept: support structures and installations are so in tune with one another to provide the upper limit of play space for individual planning. Partitioning and upgrading the office space are accommodated to the imagination of the tenants.

Ambience

actually we have known it for a long time: a motivational, cheerful, well-lit atmosphere together with a comfortable, healthy room temperature creates an environment, in which creativity and enthusiasm are woken within employees. The window fronts facing west give a full view of the young city quarter Vauban, and to the east of the shimmering blue roofs of the Solar Settlement and beyond into the Black Forest.

Healthy work in healthy rooms

Unhealthy emissions is not fate, rather the result of bad materials. Of course health-conscious building technology is possible. By using exclusively natural, renewable, and recyclable building material, there was no burden to the inner-rooms and the environment whatsoever. That together with the natural climatization ensures an altogether healthy working climate. Offices will be turned to feel-good room. Ecology is the orientation for the tenants and employees, the customers and the clients.

The Sun Deck

The Sun Ship additionally offers a generous dimensioned, light conference room on the top floor of the main building: the "Sun Deck" can be used by the tenants of the Sun Ship – for conferences, presentations, events – and it can be used further rented to other users as well.





Houses on the roof? Up here, in the penthouses among the roof gardens of the Sun Ship, life carries on, far from the rush of work life. Everything that living encompasses is offered up here: comfort, health, friendly neighbors – sun shine. And the spectacular view of the Black Forest, Rhine Valley, Kaiserstuhl, the Vosges ...

Exclusive and Natural

The penthouses have between 91 and 168 m2 floor space with three to five rooms. Integrated in 1,500 m2 dreamy roof garden landscape are sunny terraces and balconies. Most importantly, these are PlusEnergy homes. They have well-tested building methods guaranteed to have exceptional healthy and comfortable temperature thanks to natural, emissions-free building materials and light-flooded rooms with panoramic glazing. This is where you will see the especially attractive side of modern solar architecture: the homes are functional and individual, as well as simple and exclusive. As Oscar Wilde said, one can do without the necessities but not without the luxuries.

Consequently only healthy building materials were used. Simultaneously ventilation and sunlight en masse care for the freshness of the air.

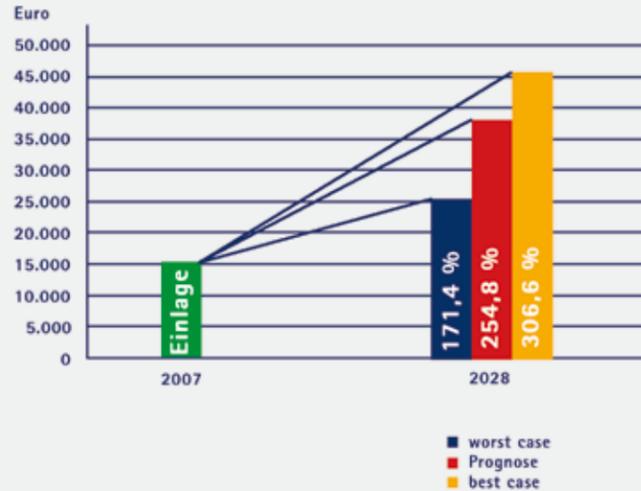
Savings and Profit

Natural building materials and updated building technology do not disagree. And both combined make an economic benefit. The savings with today's energy prices are about 1,100 to 1,800 Euros per year for heating depending on the home's size. That is because only little heating is needed. Additionally there are about 3,000 to 5,000 Euros annually in gains, created by the solar panels on the roof and which is guaranteed by law for 20 years. Whether it is for self-occupancy or leasing: a penthouse on the Sun Ship roof is an interesting capital investment, and because of the independence from energy crises and increasing prices, it is also a good safeguard for the future.

A penthouse on the Sun Ship, that's living between the sky and the earth, between idyllic landscape and a pulsating city. In other words: Live like God in Freiburg.



Before-tax performance



- Example: Investment of 15,000 Euros from 31st December 2007 over 20 years

Advantages of an investment into the 1st Sun Ship Fund

- No risk of building construction: the fund building is ready and fully let.
- The dividend payout rises to over 6.5 %
- Investments can start from only 5,000 Euros.
- Guaranteed interest rate until fund closure at the end of 2007
- Closing of the fund guaranteed by Solarsiedlung GmbH
- Four successful predecessor funds
- Active contribution to the protection of climate and resources

With the first Sun Ship Fund you can have a holding in the three largest commercial spaces on the ground floor. With the Swiss bar, dm drug store, and the eco-super market Alnatura all occupy this floor. So far the four successful solar funds have either met or over shot their prognoses. Not a single dividend payout has been reduced or fallen through.

Financing

Like with any long-term investment, the investor's proceeds lie in the economical use of financial resources of their purchase and sound financing. In the case of the Sun Ship, only 5.75% of the total volume was spent on conception and marketing. The rest goes completely into the purchase of the real estate and the necessary liquidity reserves. The purchase price was checked and attested as appropriate by an independent authorized expert. The financing is done with less than 32% of committed assets and more than 68% equity. Another advantage for the investor: the Sun Ship has already been completed. Thus, the investment company does not run any risk during the building process.

Income and expenditures

The tenancy contracts run over a period of ten years with an extension option. The main tenants dm drug store and Alnatura supermarket have together have a combined tenancy of over 30 years. Operation and administration expenses are only about 10%, the expense for interest rates and amortization are about 30% of the rental income. 60% of the rental income remains for the stockholders. The full amount of this surplus is meant to be paid-out to the stockholders every year.

Dividend payout

in the beginning phase, the payout amounts to a little more than 3.4% - related to the investment sum. Since the rents are bound to the cost of living index, the rents will rise too. Thus, the payout will rise until, in about 20 years, it will amount to about 6%. At that point, the investor will have been repaid the full amount of his investment. If the Sun Sip is sold at this point, he will additionally get his share of the sale proceeds. Altogether, on an investment of 15,000 euros, he will attain a return flow of 38,000 euros.

How safe is the investment?

Nobody can predict economic development over a long period of time. Yet it is possible to calculate, what the dividend payout could be, if certain development parameters are determined. From this it can be deduced quite precisely, how an investment will perform, if the development departs from the forecasts.

In a worst case scenario, the assumption is that the rental receipts will fall by 20% after 10 years. With rents being comparatively low under this assumption, the sale proceeds for the real estate would be about one third lower than planned. Both assumptions can only become real in an extremely bad economic situation. This worst case calculation would result in a return flow of 171.4%.

For an investment of 15,000 euros, the return flow to the investor would be 24,141 euros over the complete investment period. The dividend would then be 3.64%. For a "worst case," this value is very good.

As for a "best case," e.g. for a downright favorable development, the investor would even receive almost four times his investment.



The trophy case is full. In the last years, the Solar Settlement and the Sun Ship have been endowed with the most renowned national and international awards. Their architectural aesthetics, the innovative technology, and the sustainable urban planning concept of architect Rolf Disch have gained great recognition – and of course the entrepreneurial accomplishment.

The unique energy concept alone has achieved three distinguished promotion schemes: by the German Federal Environment Foundation, by the federal state of Baden-Württemberg, and by the Innovation Fund of local energy supplier Badenova AG.

Beyond all borders the solar service center is considered to be a pioneering project for future building construction, and for Freiburg's economy, it is a figurehead and trigger for innovations. For the commercial tenants, the high standing of this "res des" means a cash value advantage through image transfer. The high symbolic capital of the Sun Ship thus plays a considerable part in its stable value – and your return-on-investment.



2009
Utopia Award 2009

2008
German Local Sustainability Prize

2008
'Focus in silver' from Focus Green – International Design Prize Baden-Württemberg

2007 – 2008
Creativity Award from Japanese PEN-Magazine

2006
Germany's Most Beautiful Residential Community

2005
Wuppertaler Energy- and Environment Prize for the Sun Ship

2003
Global Energy Award

2002
European Solar Prize

2002
House of the Year from 'Häuser' Magazine along with the Reiner Foundation and the German Publishing Institute

2002
Special Prize for 'Residential Integrated Photovoltaic' by the German BP

2001
Photovoltaic Architecture Prize, Baden-Württemberg

2000
Creative wood integration prize from BUND for the Schlierberg Solar Settlement in Freiburg



Global Energy Award

With his Solar Settlement and the Sun Ship, Freiburg-based solar architect Rolf Disch has created an internationally recognized masterpiece, blending heavenly colors and shapes.

Kommunal Intern, 6/06

Heliotrope is, in a sense, a temple - a place for the worship of both ancient sunlight and groundbreaking design.

Azure, May 2007

Germany's most beautiful housing estate is in Freiburg.

Bauidee, 6/06

*Disch is without doubt
Germany's best-known
solar pioneer.* DIE ZEIT

The linkage of solar energy and the financial sector unleashes new potential. The future belongs to the renewables. And the present? Solar technology is already making a pioneering and stimulating contribution with cross-sector projects. Freiburg's Solar Settlement proves this clearly: The combination of innovative financial experts, the property industry, and solar technology made the housing estate possible in the first place

Die Welt, 4/04

Trendsetter for sun joy: the Schlierberg Solar Settlement in Freiburg, one of the most modern solar housing construction projects in Europe.

Hannoversche Allgemeine Zeitung, 2/06

The Solar Settlement in Freiburg shows that today financially attractive products that also appeal to the ideals are possible. Solarfonds as a real-estate fund already champions all the advantages that such an investment in an attractive region such as Freiburg offers, with the high level of rent prices, the strong increases in property values and the growing population there. Its particular appeal: it is a sustainable investment, offering earnings that go well beyond the customary good ROI.

Die Welt, 4/04

Making possible today what was impossible yesterday. Houses that produce more energy than their inhabitants can consume. A high quality of life thanks to healthy construction materials. Solar energy as the driving force in society. That is Rolf Disch's vision. And this vision is no utopia but a reality, as he and his team have proved. A large number of widely different construction projects already attest to this committed pioneer's design talent. Solar technology, cost/benefits, and architecture blend in Rolf Disch's oeuvre to offer a convincing alternative to conventional ways of building and living.

Badische Zeitung, 7/05

With the Schlierberg Solar Settlement, the company has set new standards for solar construction and residences in the 21st century. The Schlierberg Solar Settlement means that the future of solar construction and residence in harmony with nature is already a reality today.

Der Monat, 3/06

Disch's energy savings principles impact on the architectural forms chosen, because while the form is supposed to follow the building's function, the criterion of "form follows energy" is given an equal status here.

Family Home, 3/05





Solarsiedlung GmbH
Sonnenschiff
Merzhauser Straße 177
79100 Freiburg
Germany

Tel. 0761 / 49 / 459 44 30
Fax 0761 / 49 / 459 44 39

www.solarsiedlung.de
www.sonnenschiff-fonds.de

