

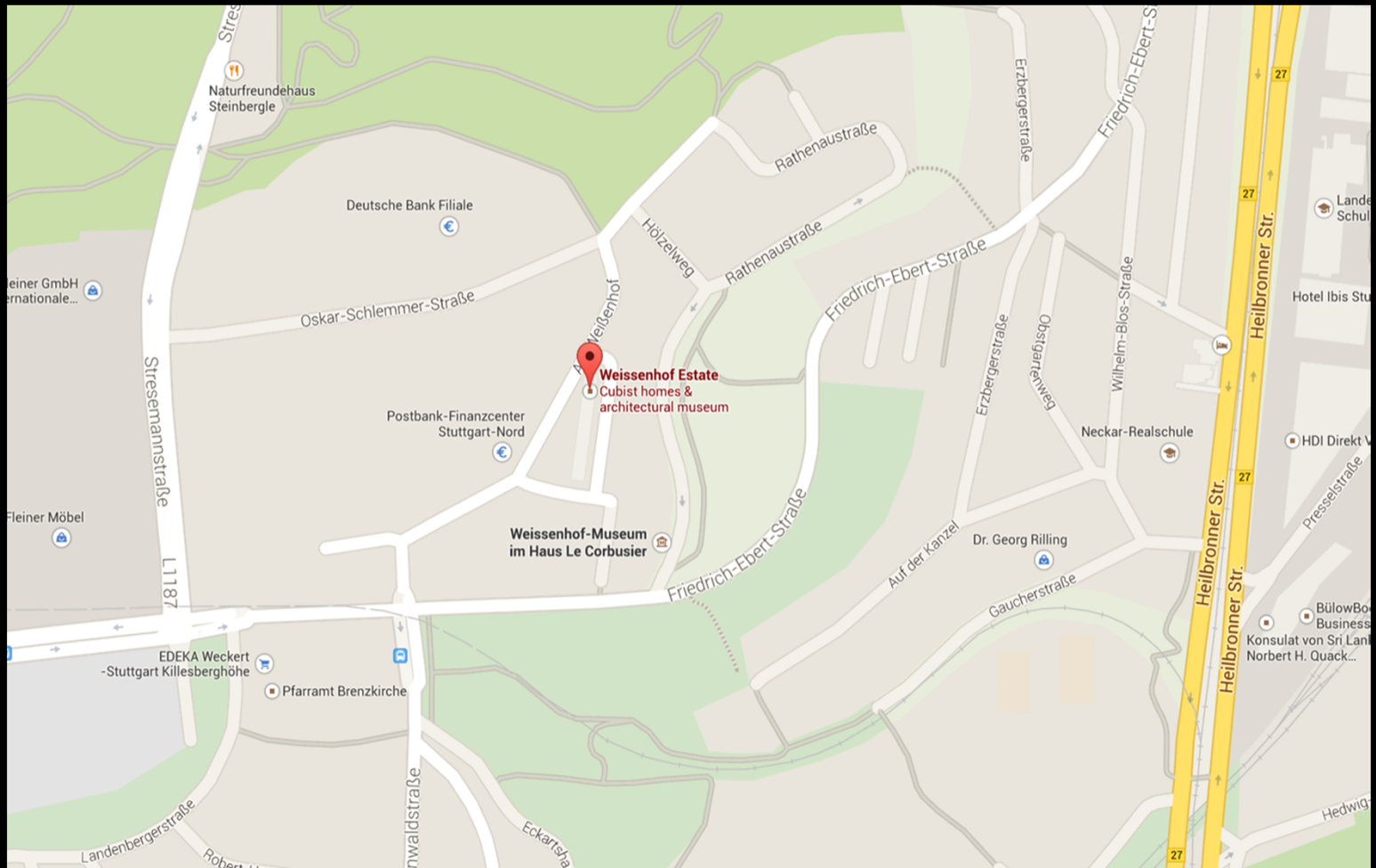
Rowhouses, Weissenhof

JJP Oud

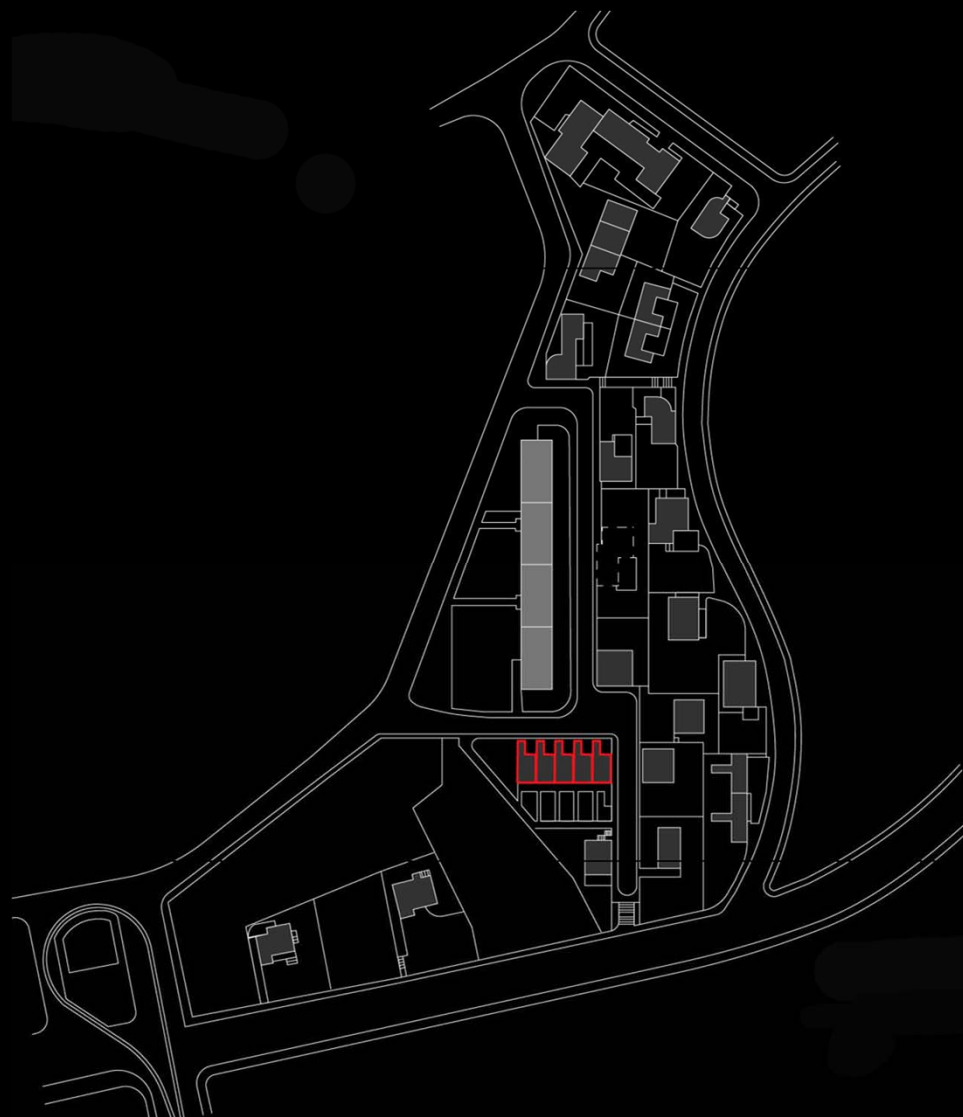
Stuttgart, 1927

Jan Chen
Janice Chen
Sissi Li
Amy Bao
CJ Yang









Rowhouses
JJP Oud

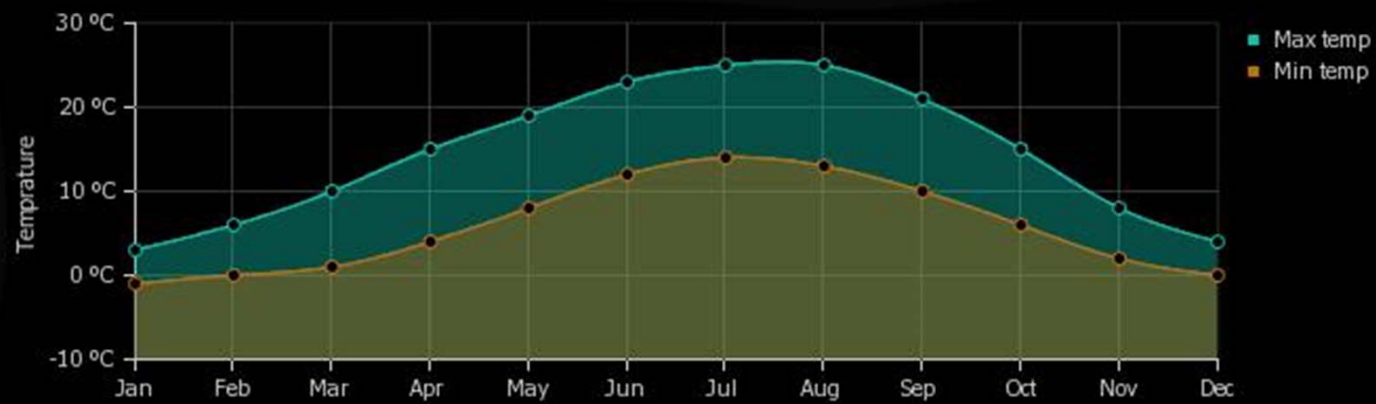




<http://www.planetminecraft.com/project/rowhouses-siedlung-am-weienhof/>



<http://www.planetminecraft.com/project/rowhouses-siedlung-am-weienhof/>



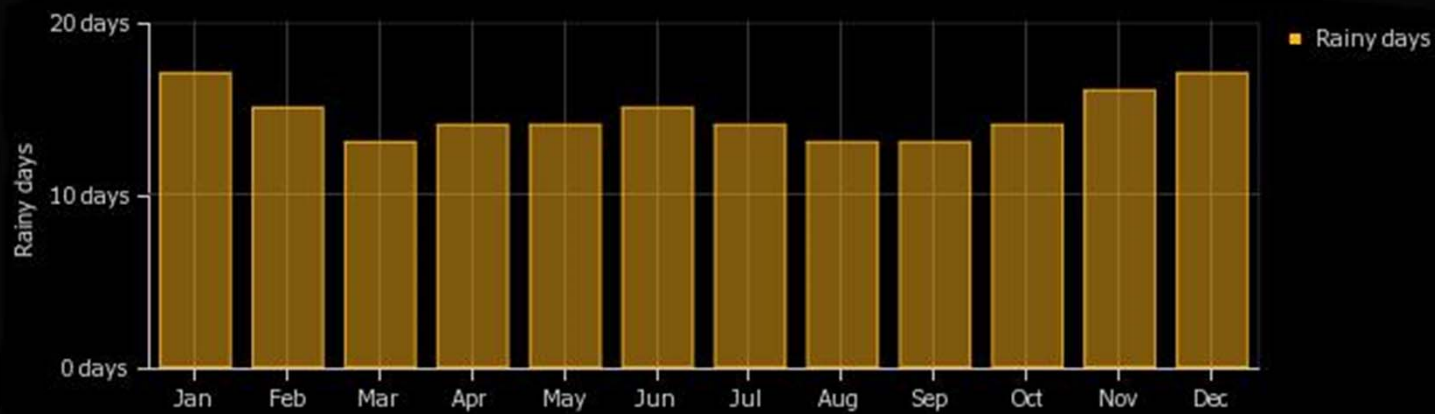
Average min and max temperatures in Stuttgart, Germany Copyright © 2015 www.weather-and-climate.com



Average monthly sunhours in Stuttgart, Germany Copyright © 2015 www.weather-and-climate.com



Average relative humidity in Stuttgart, Germany Copyright © 2015 www.weather-and-climate.com



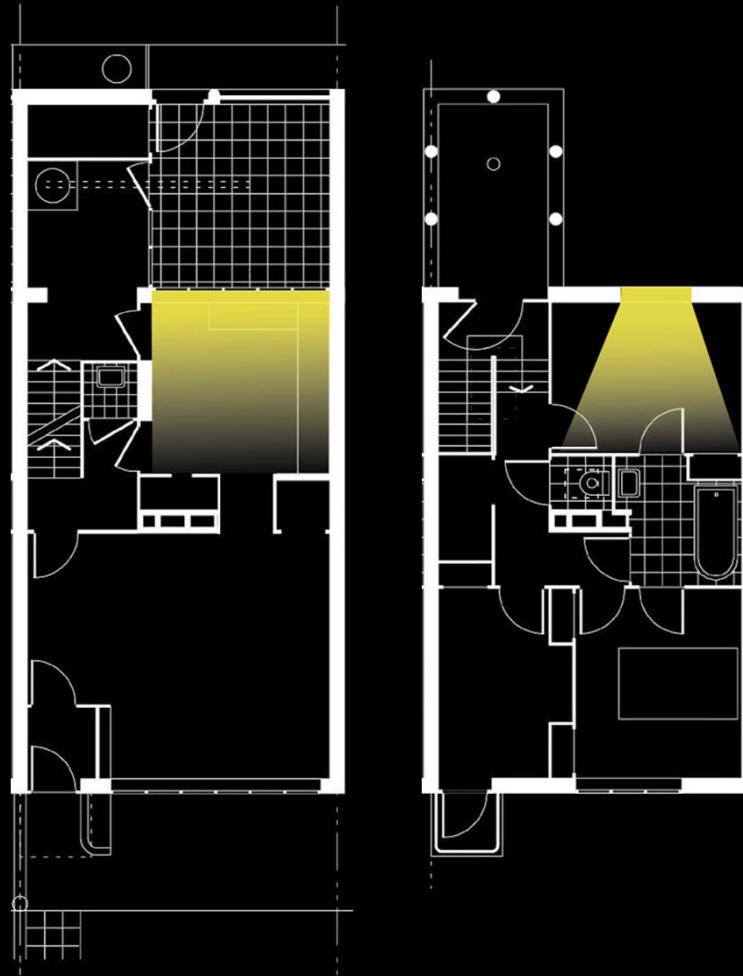
Average rainy days (rain/snow) in Stuttgart, Germany Copyright © 2015 www.weather-and-climate.com



Solar Access on Site

large window facing north

→ provides diffused and
constant light into the
kitchen

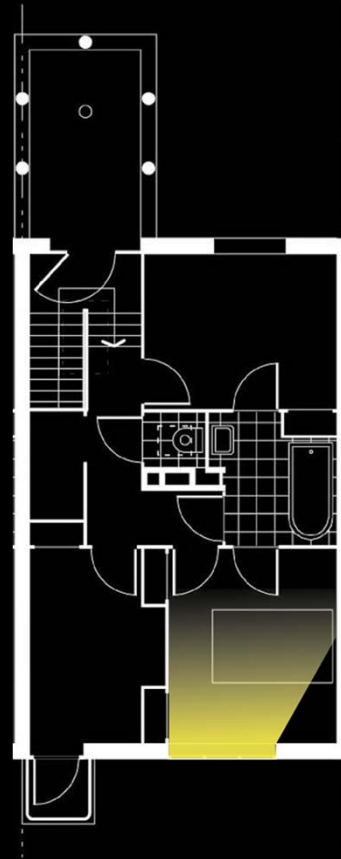
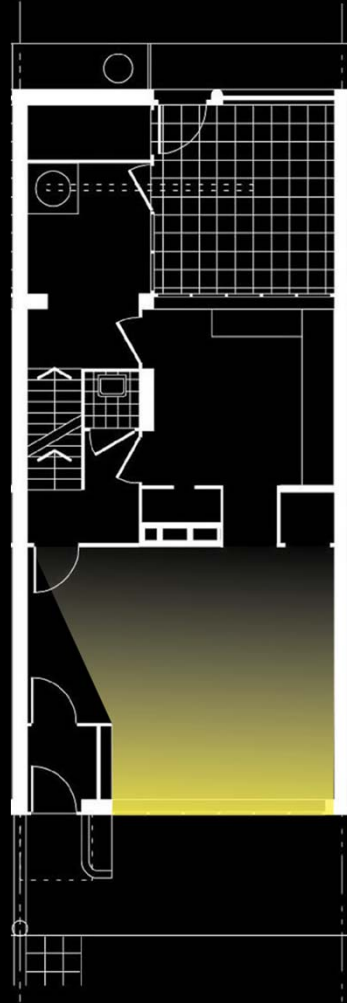




The Kitchen

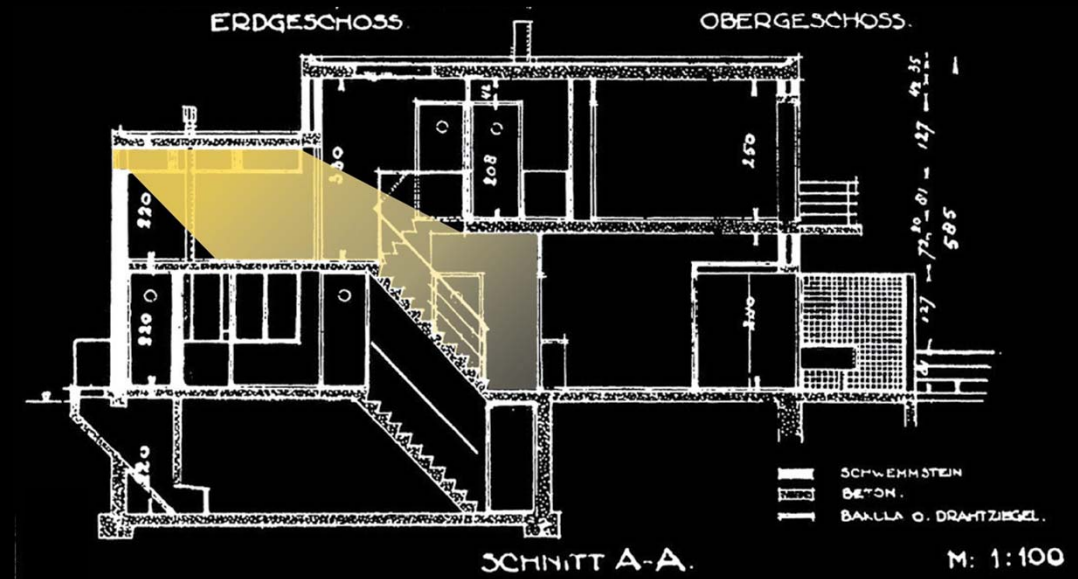
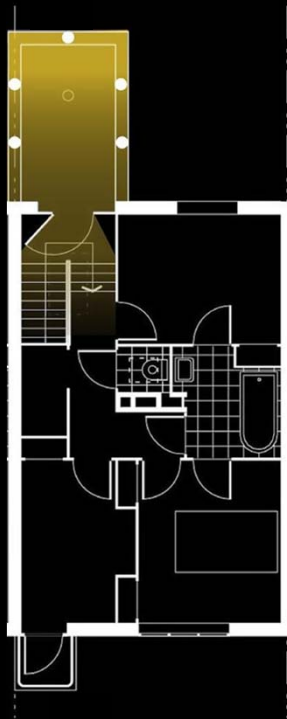
large window facing south

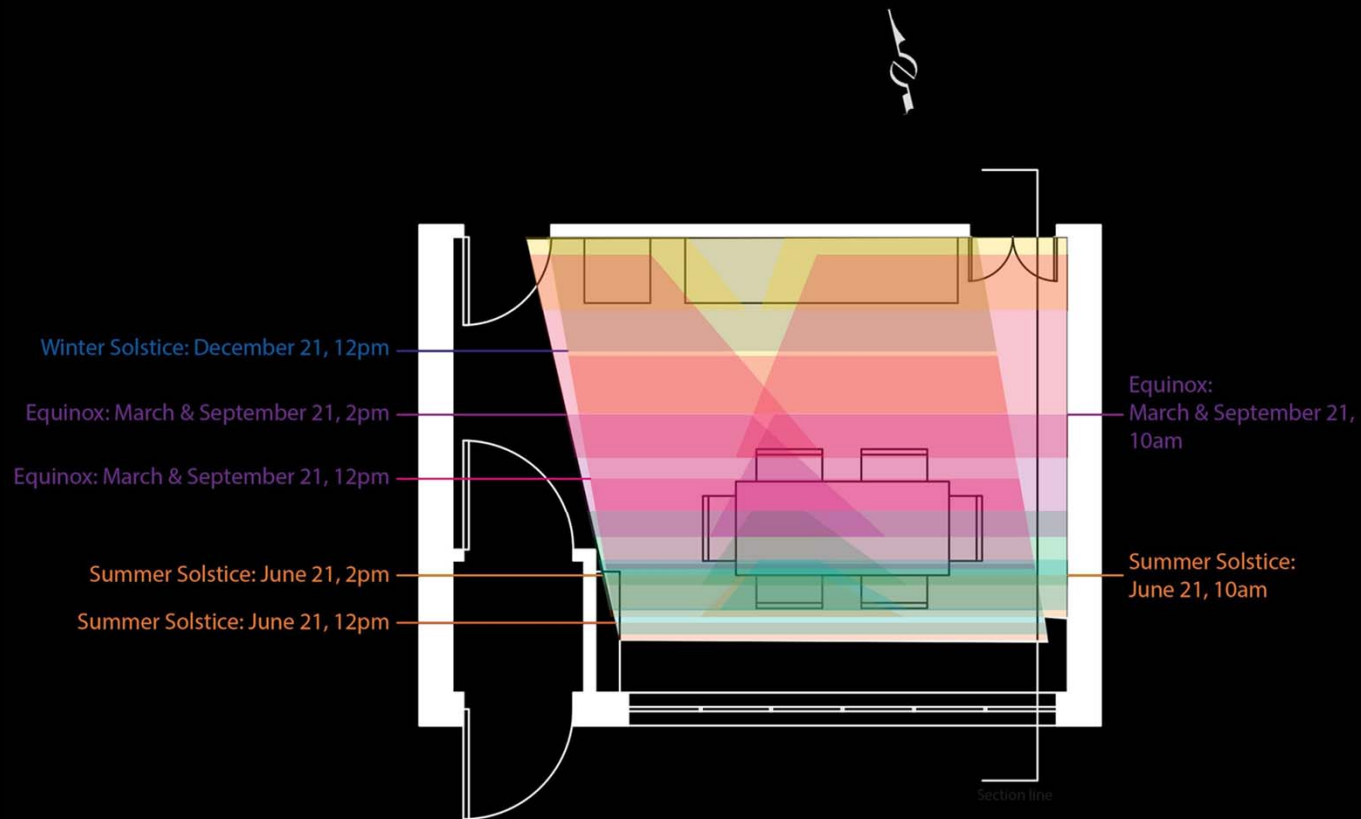
→ provides brightness to the
living room and the bedroom





The Living Room

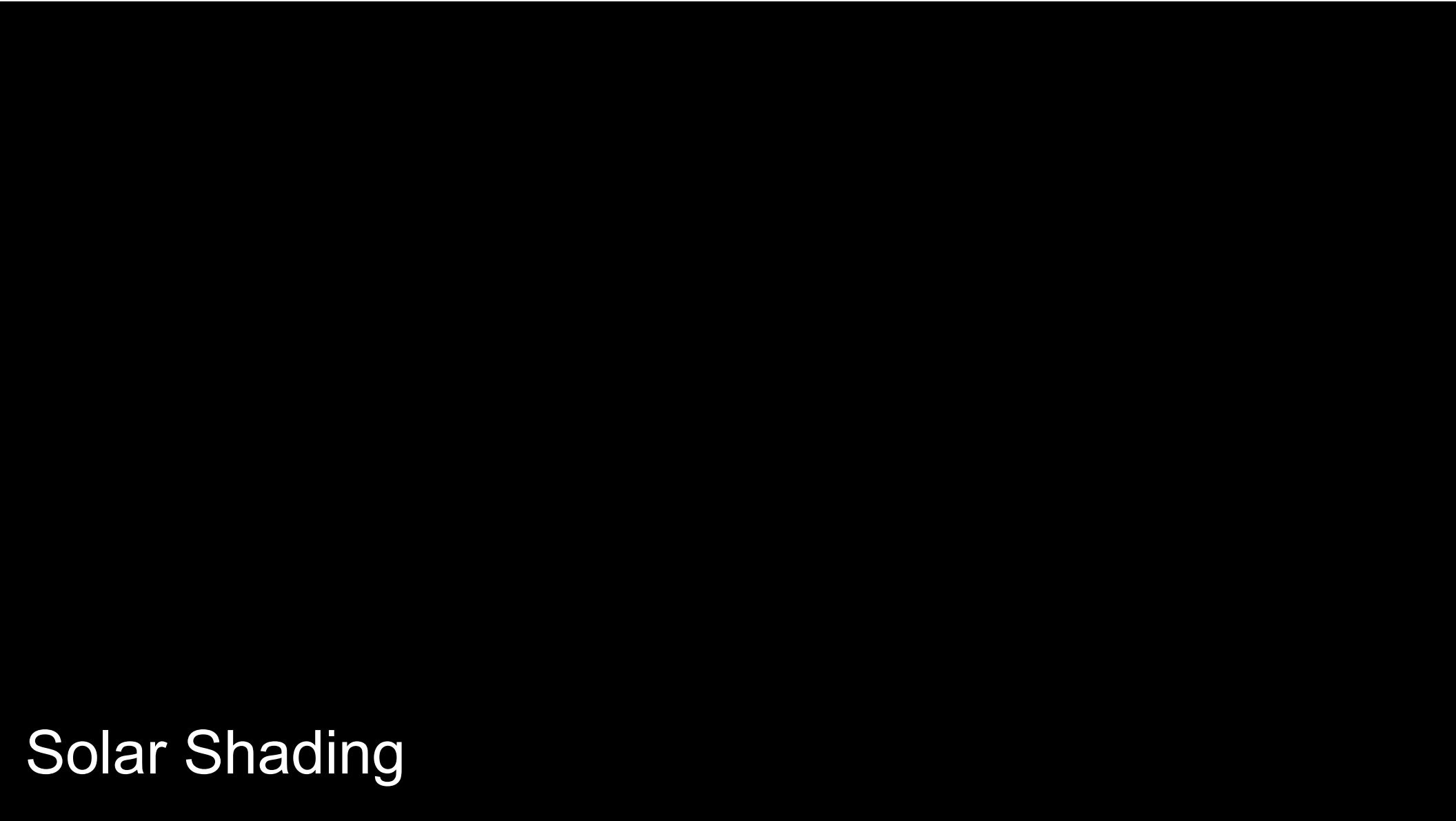




adequate amount of sunlight during summer
 \therefore doesn't heat up floors and the rooms too much

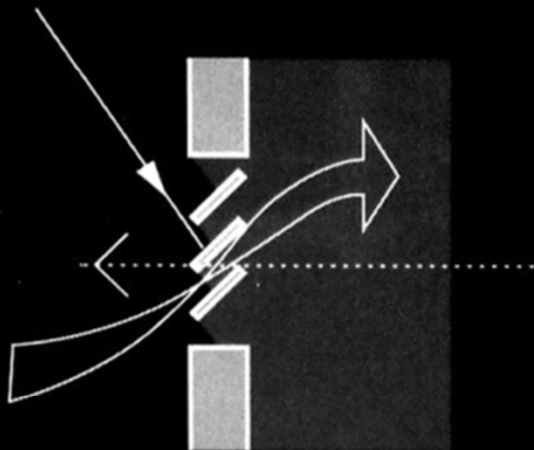
OTHER MONTHS:

- January & November 21
- February & October 21
- April & August 21
- May & July 21



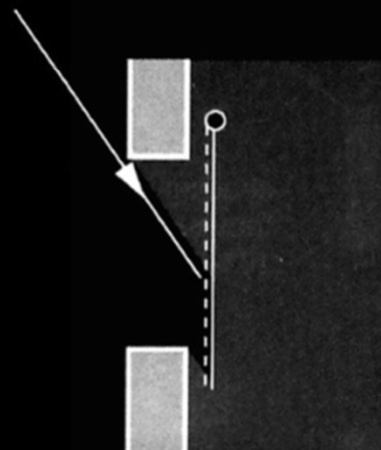
Solar Shading

louvres



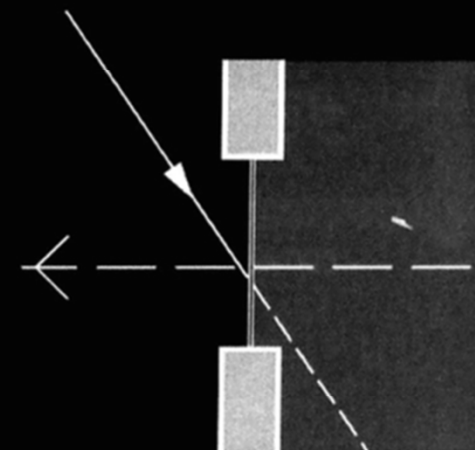
view
airflow ✓
✓✓

blind

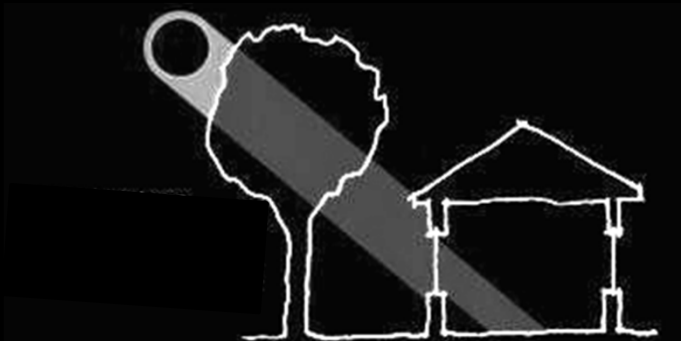


view
airflow

tinted or
reflective glass



view
airflow ✓✓



<http://buildingdignity.wscadv.org/site-design/empower/>

http://www.greatbuildings.com/gbc/images/cid_1344350.jpg



evergreen→ blocks summer & winter light



deciduous→ blocks summer sunlight, allow winter sunlight in

Ventilation

Natural ventilation is the process of supplying and removing air through an indoor space without using mechanical systems.

Day

Breezy with times of clouds
and sun



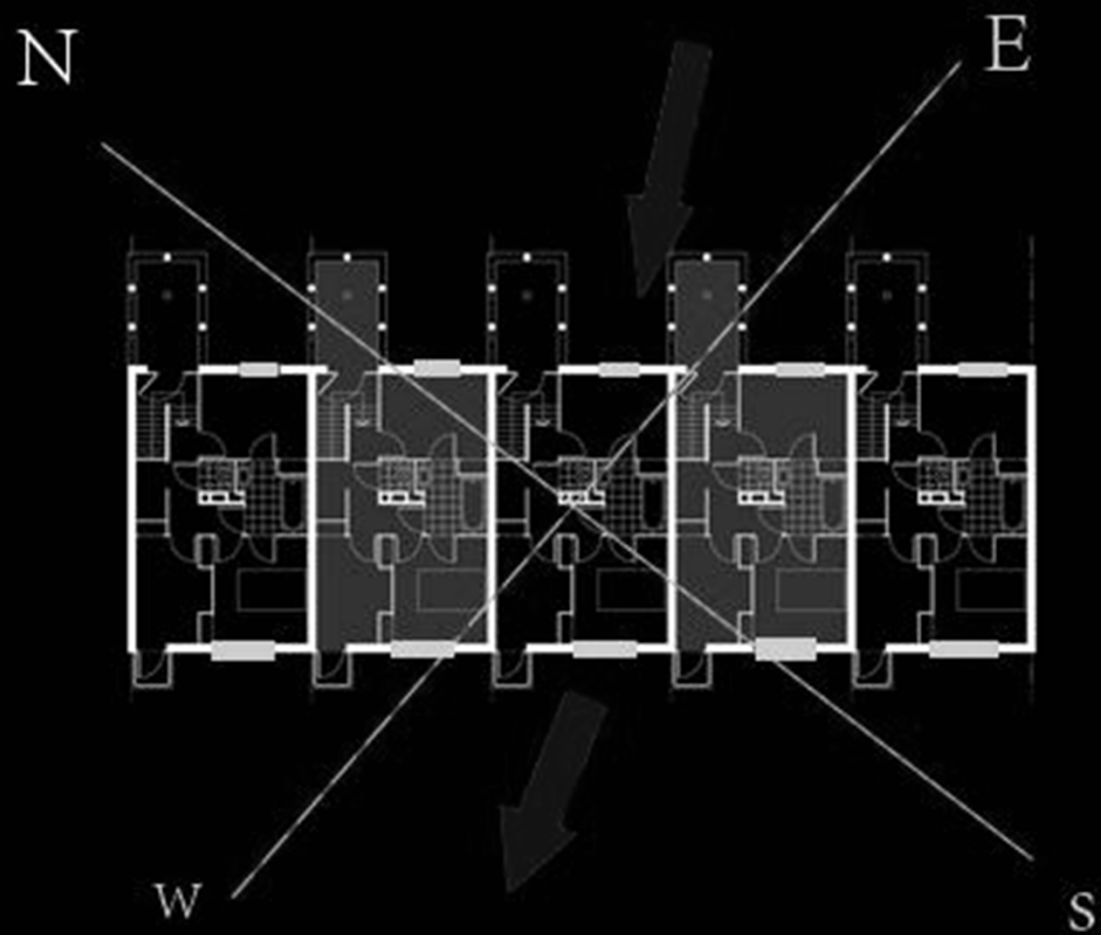
SW 26 km/h
Gusts: **39 km/h**

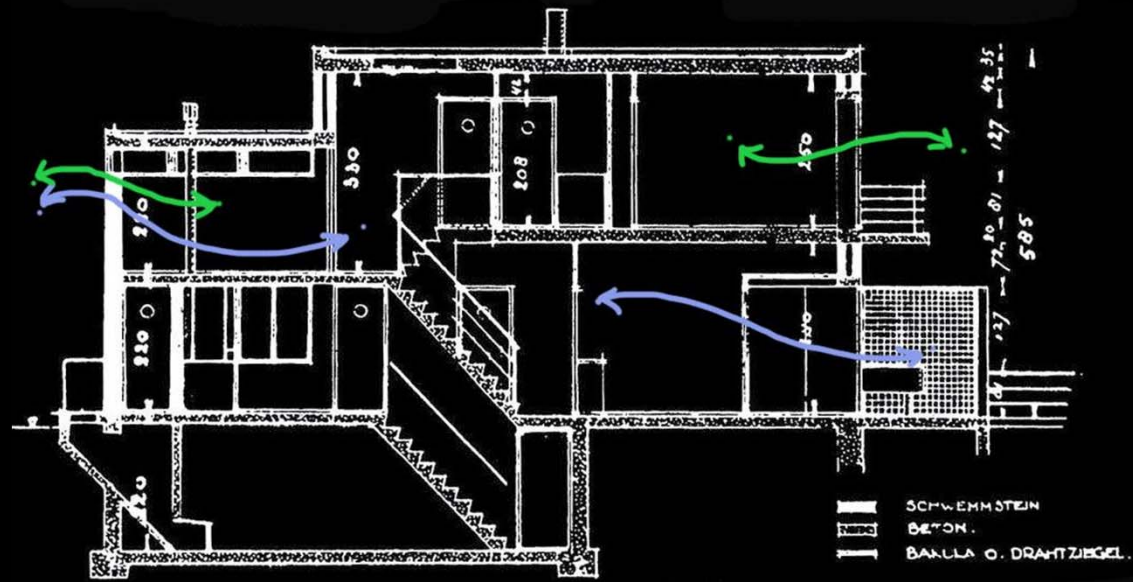
Night

Periods of snow



SW 17 km/h
Gusts: **28 km/h**





SCHNITT A-A.



Sustainability

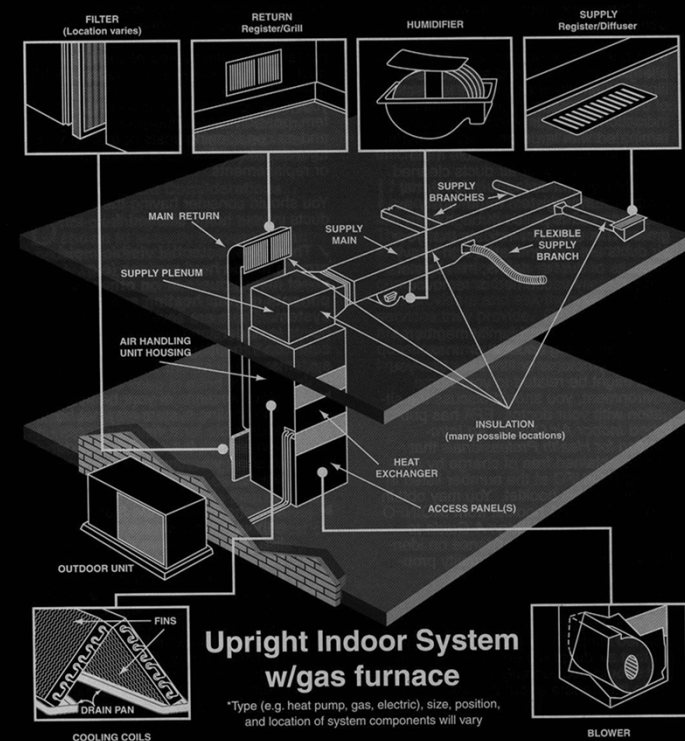
Sustainability



Energy Efficiency

- Heating, ventilation and cooling system (HVAC)
- Insulation

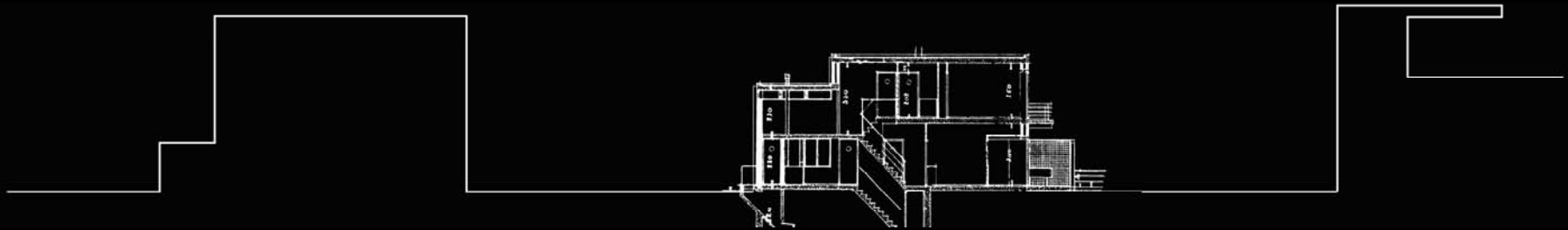
**Components of a Typical*
Residential Heating and
Cooling System**

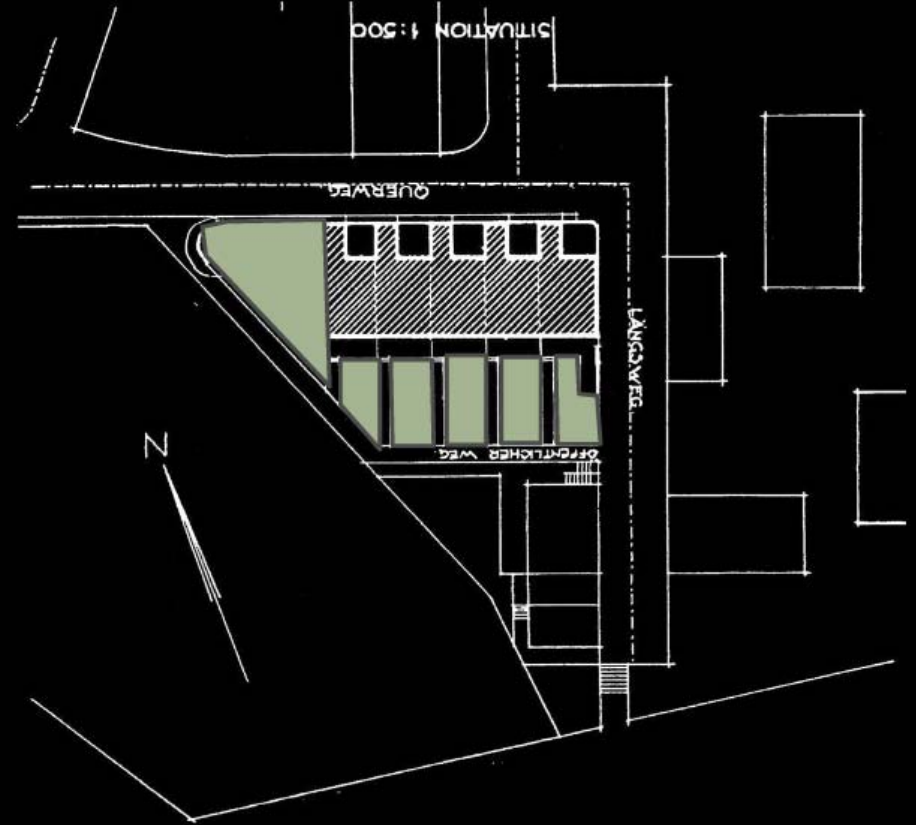


Sustainability



Site and Surroundings







<https://www.flickr.com/photos/8mobili/sets/72157613394393846/>

Sustainability



Materials

White Stucco

- Sand
- Portland Cement
- Lime
- Water
- Fibers
- Synthetic Acrylics



<http://www.getsomephotos.com/Weissenhof-Row-Houses-J-J-P-Oud-Stuttgart>

Sustainability



Materials

Gravel base concrete



<http://www.getsomephotos.com/Weissenhof-Row-Houses-J-J-P-Oud-Stuttgart>

Sustainability



Materials

Ruberoid



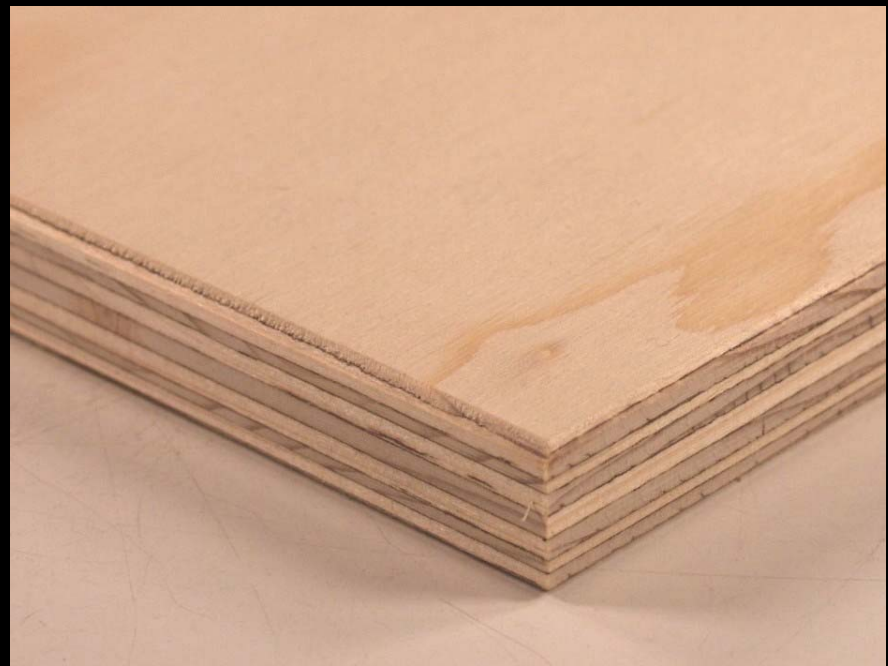
<http://www.getsomephotos.com/Weissenhof-Row-Houses-J-J-P-Oud-Stuttgart>

Sustainability



Materials

Plywood



<http://en.wikipedia.org/wiki/Plywood>

