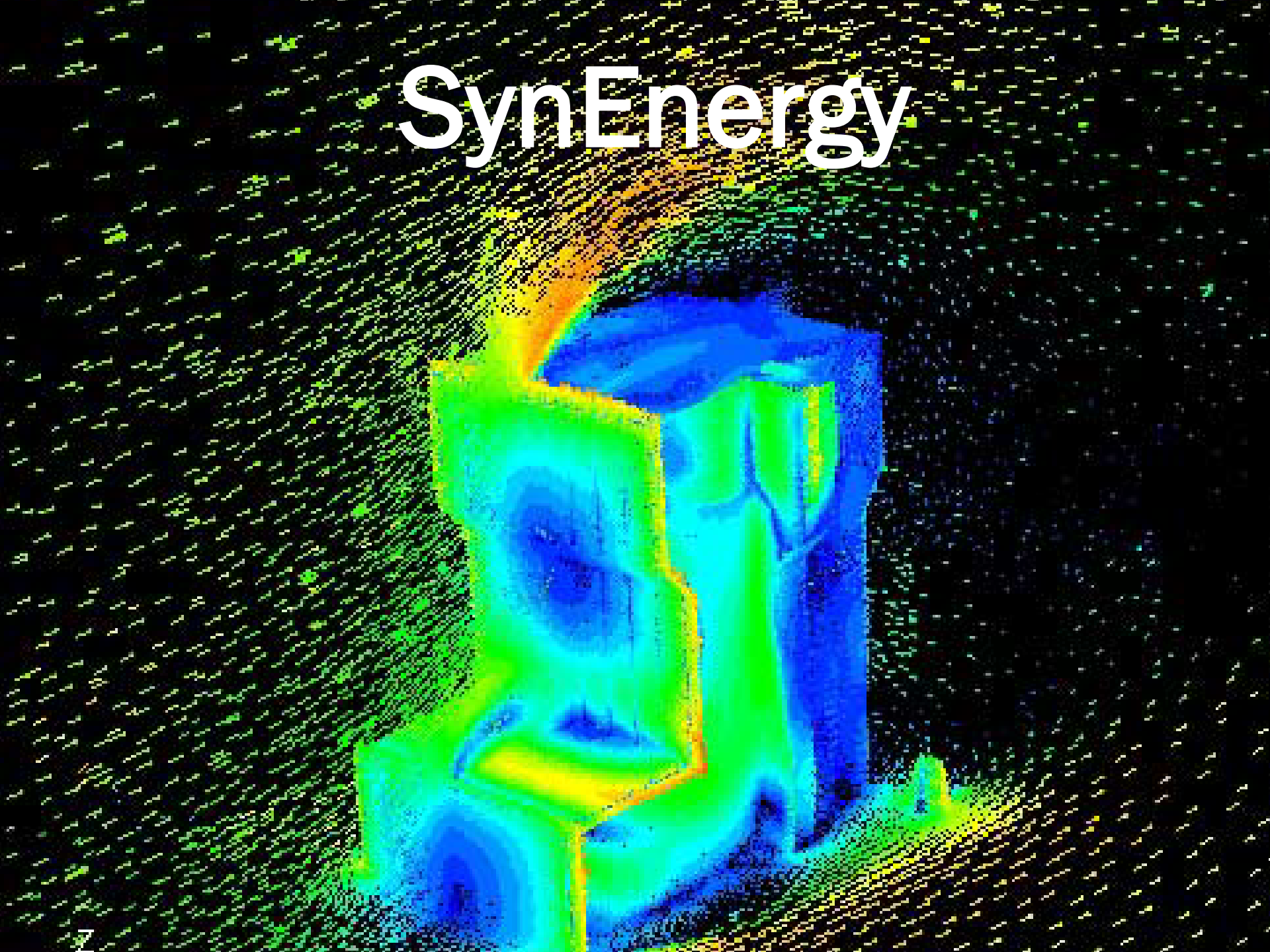
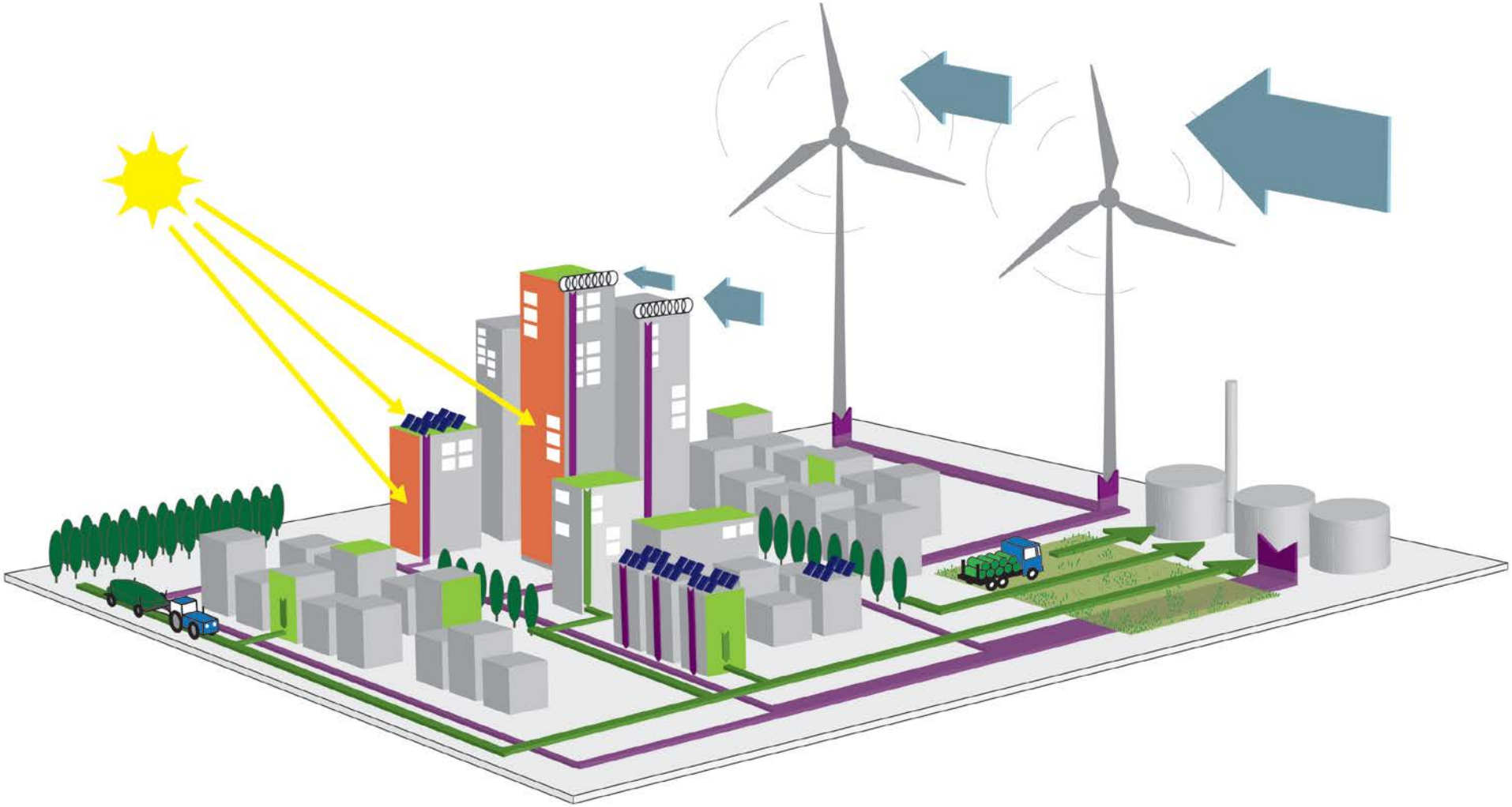
SynEnergy





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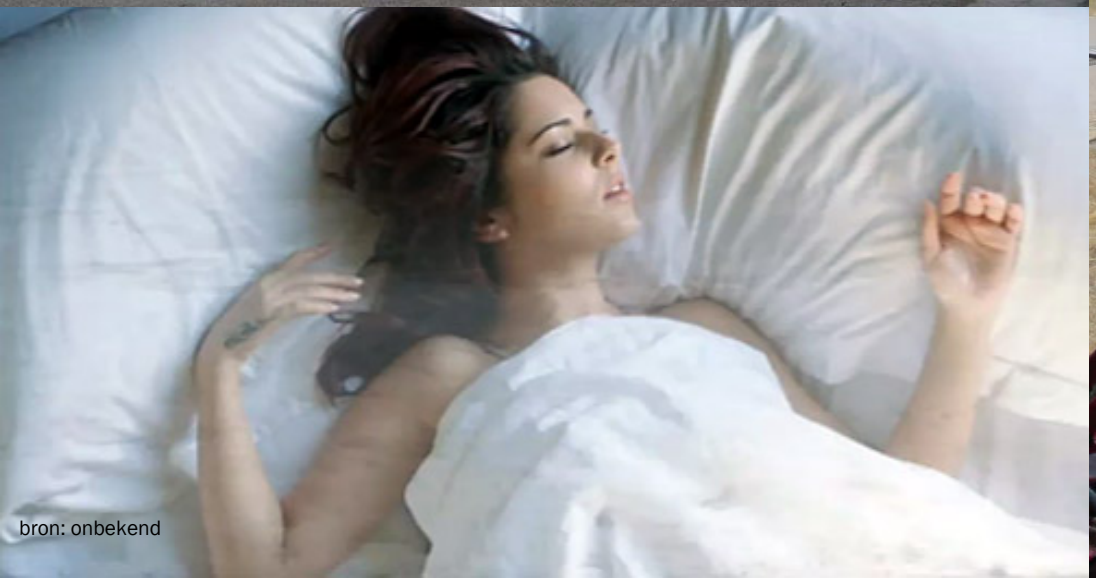
Hoe we stadsklimaat beleven: hitte



bron: onbekend

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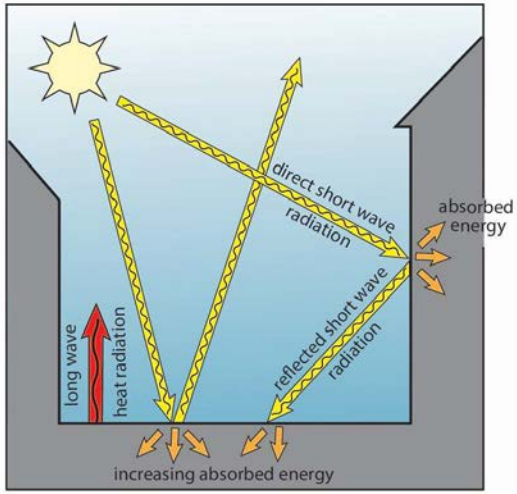
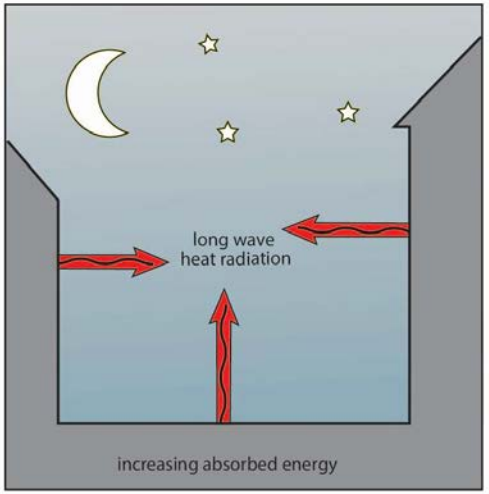
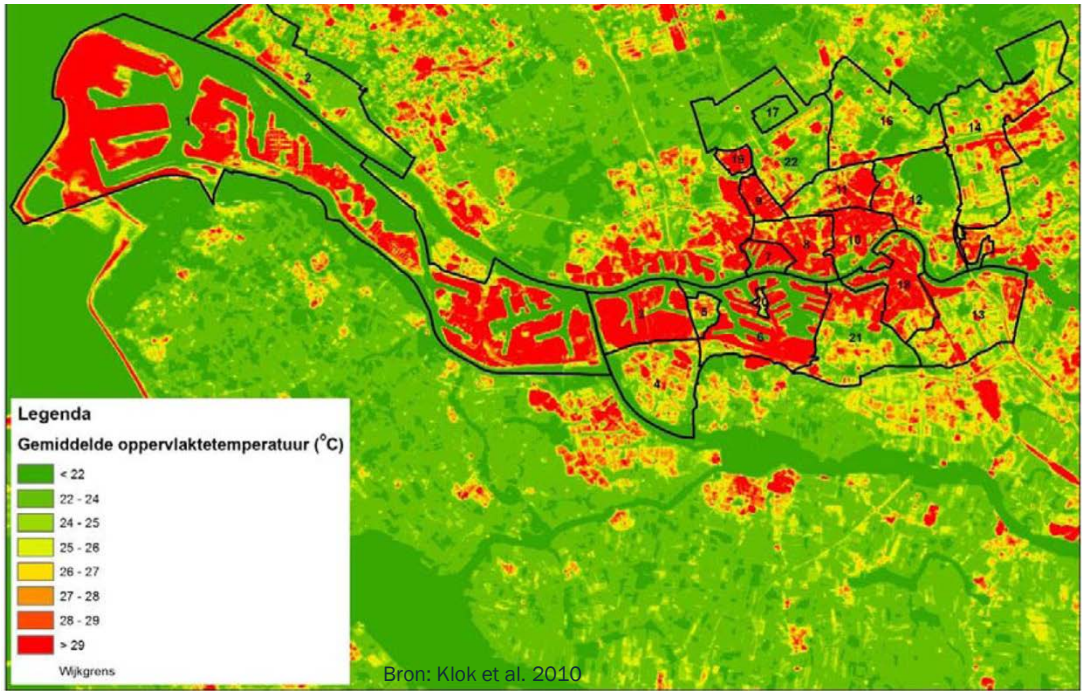
Gevangen langgolvige straling



Day



Night



Bron: Klok et al. 2010

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Hoe we stadsklimaat beleven: wind

bron: onbekend

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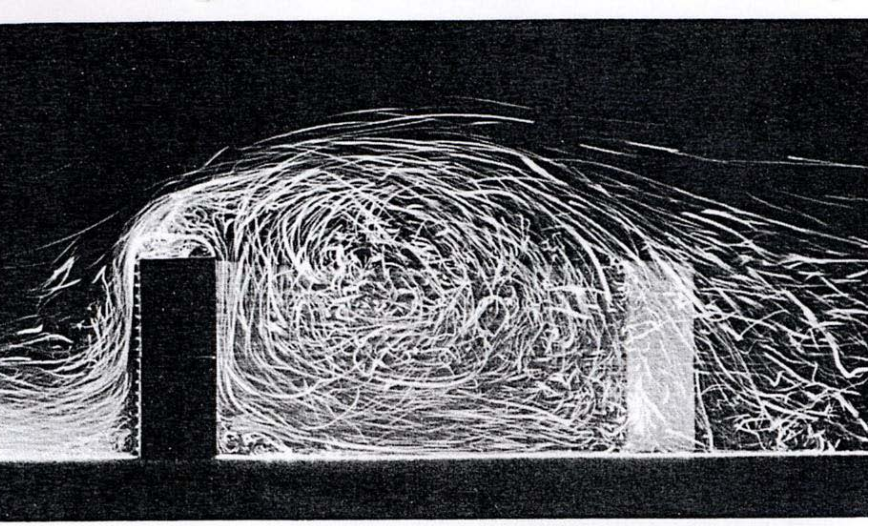
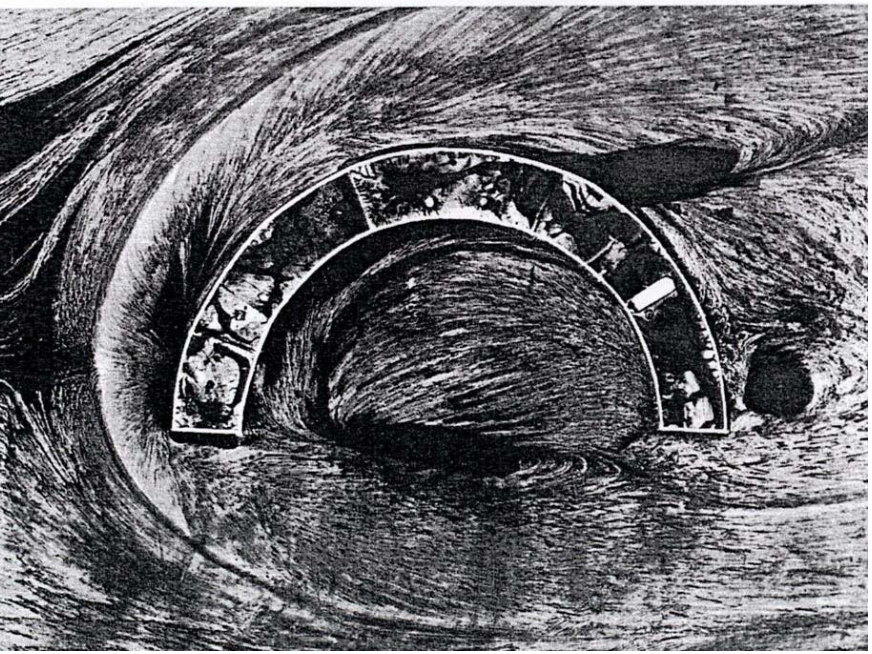
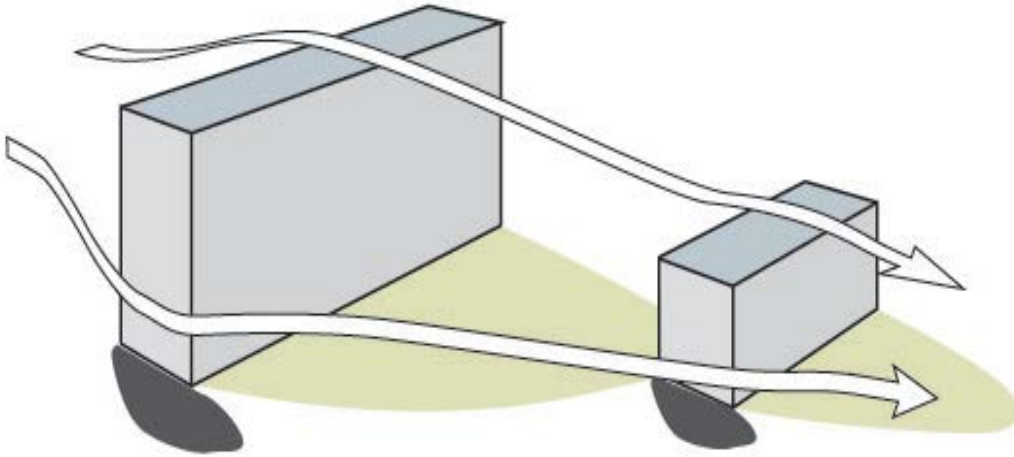
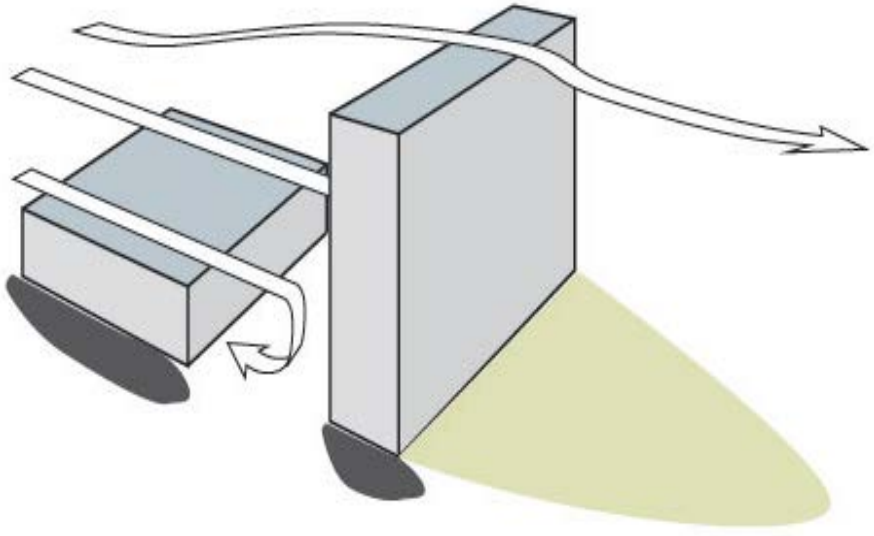
Wind rondom gebouwen en lokale windsystemen









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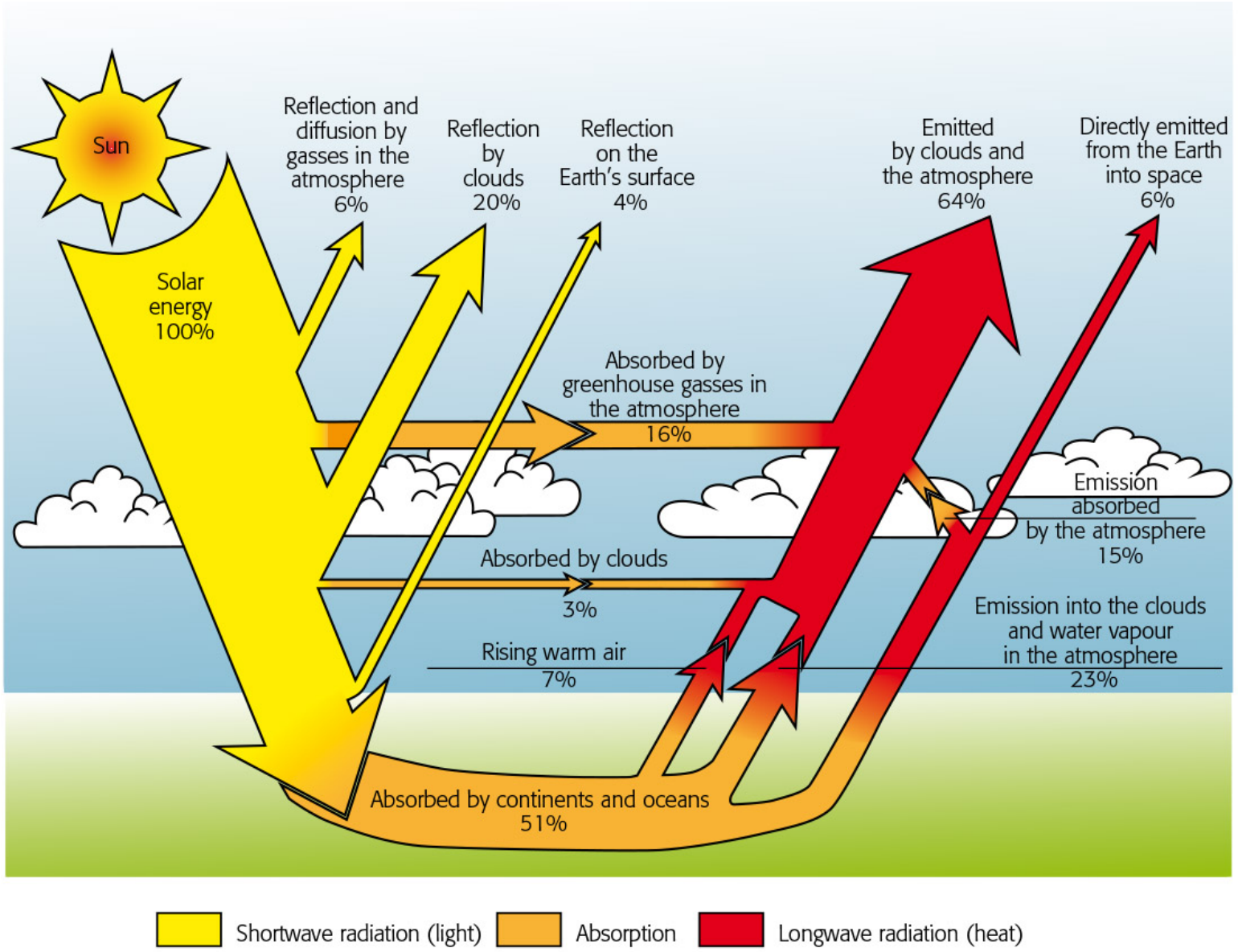
Earth's energy budget



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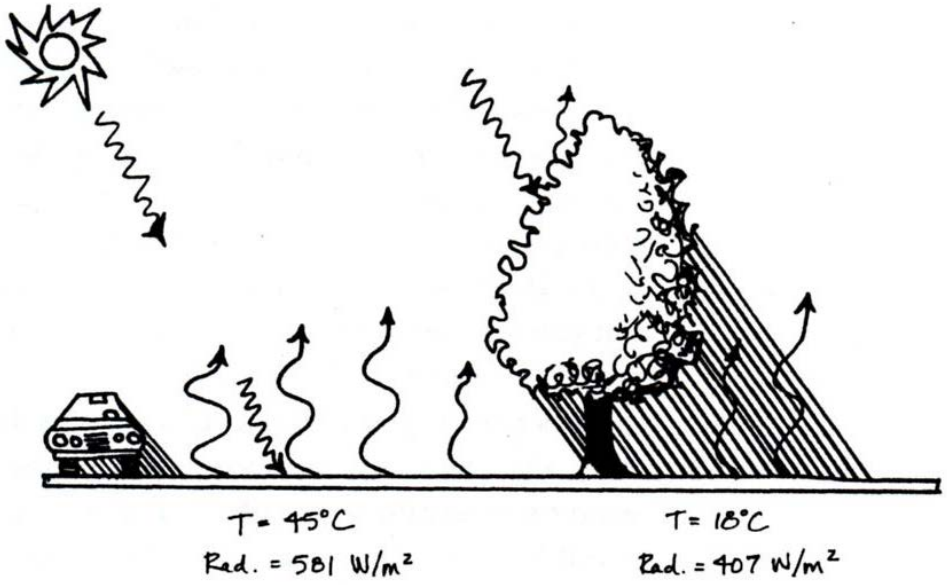
Radiation



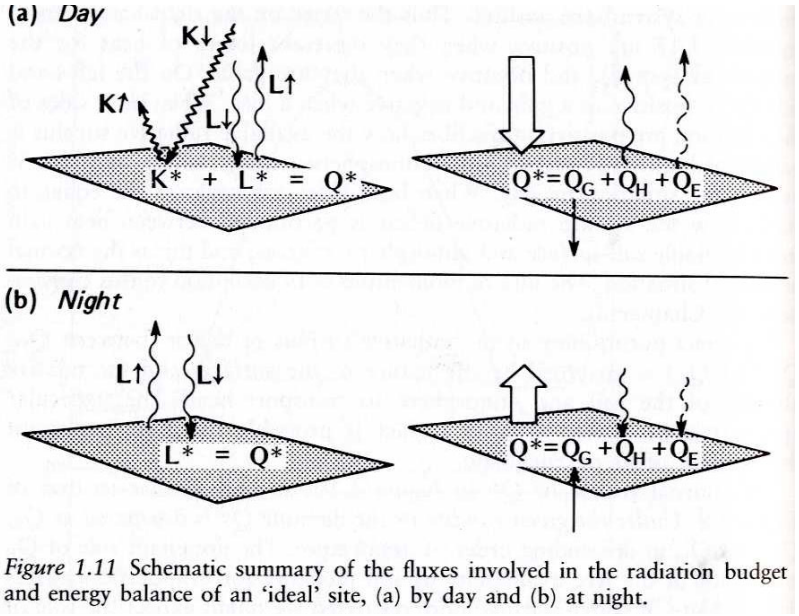
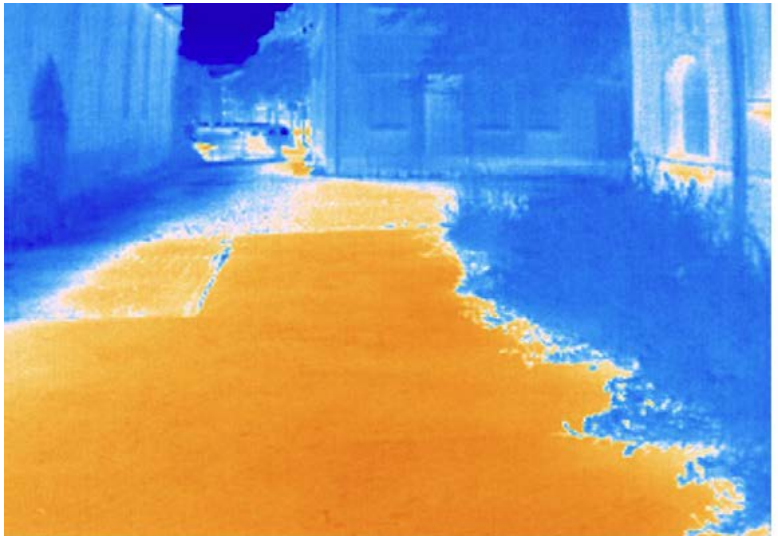


Figure 1.11 Schematic summary of the fluxes involved in the radiation budget and energy balance of an 'ideal' site, (a) by day and (b) at night.

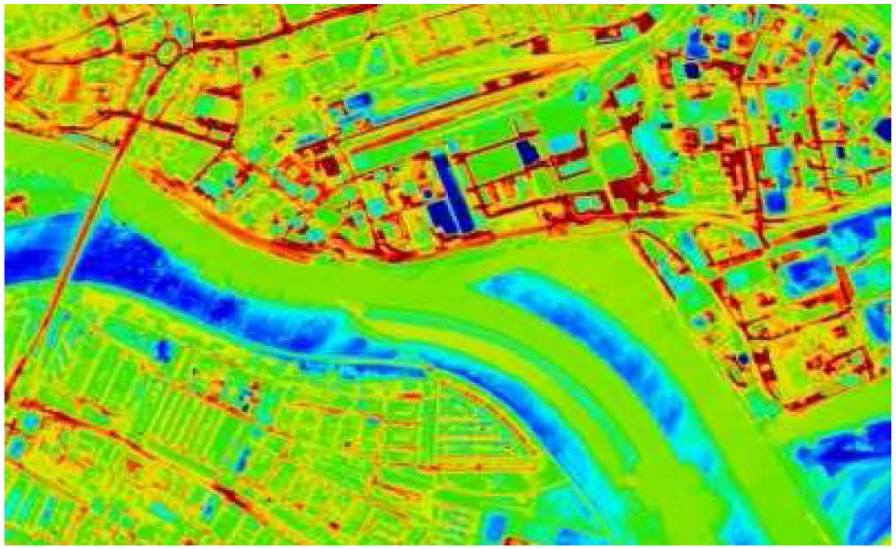
from: Brown, R. and Gillespie, J. Microclimatic landscape design, Wiley and sons, New York

from:Boundary layer climates, 1978, Oke, T.R., Methuen, London/ N.Y.

Influence of materials



From: Kassel University



From: Future Cities- Arnhem

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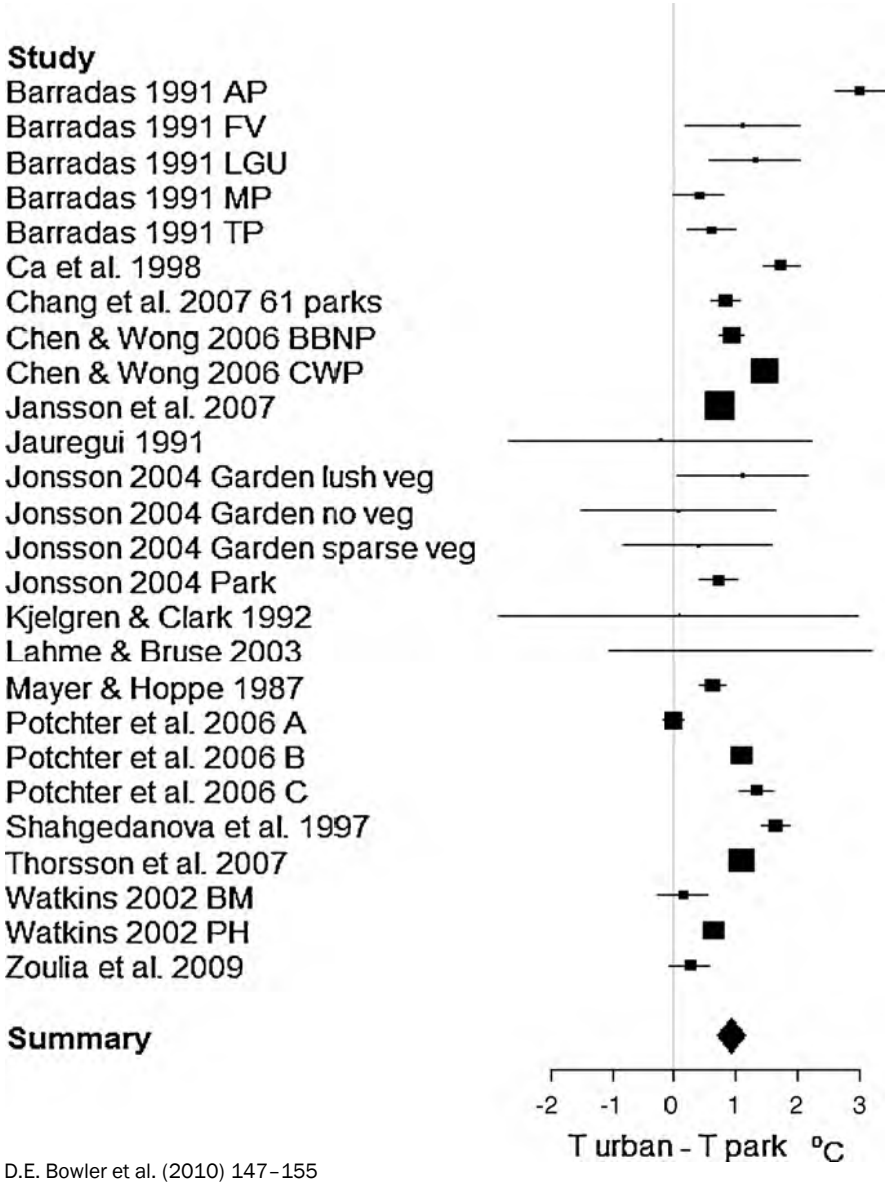
Reflectiviteit en warmteopslag

Table 6.5.2 Albedo and emissivity for selected surfaces

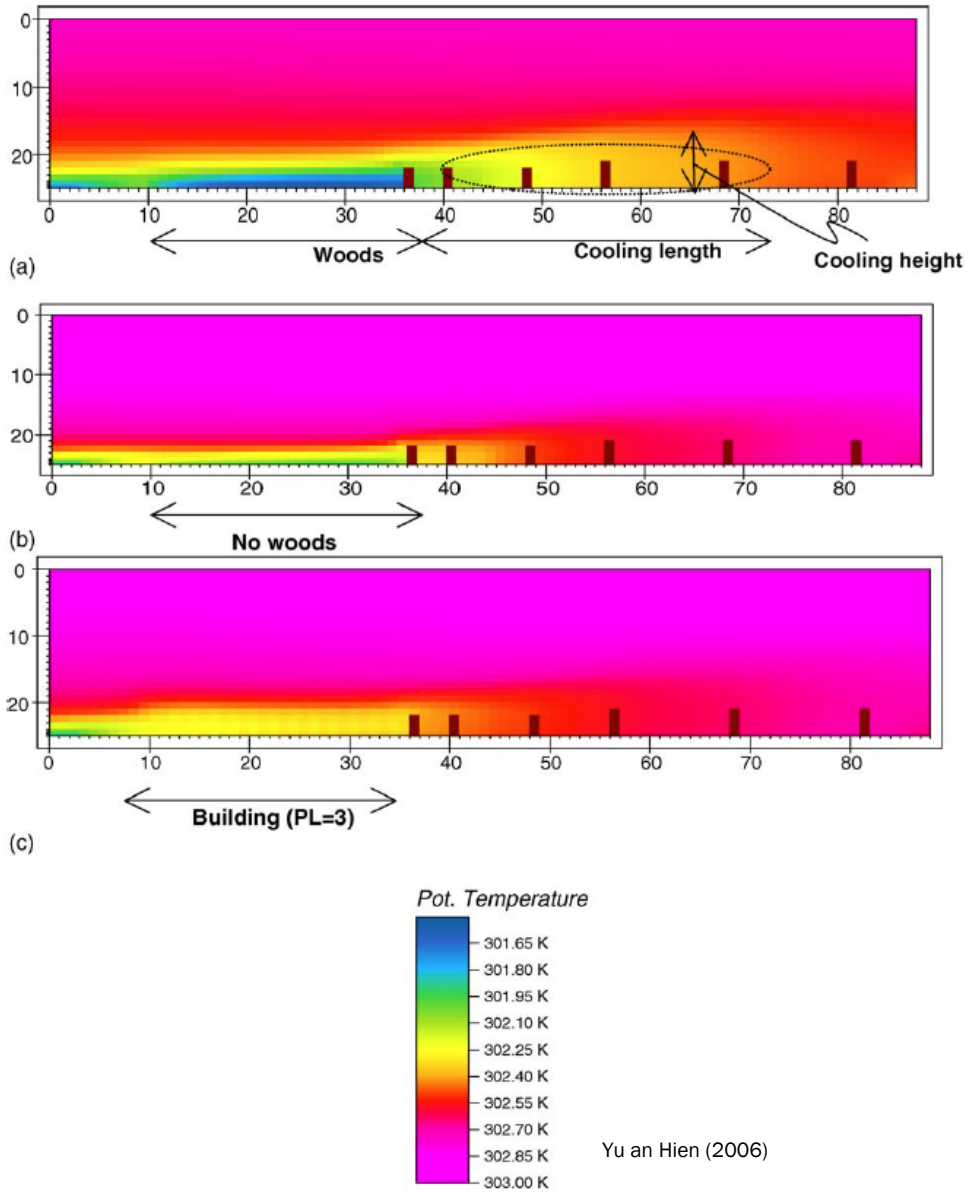
Material	Albedo	Emissivity
Concrete	0.3	0.94
Red brick	0.3	0.90
Building brick	—	0.45
Concrete tiles	—	0.63
Wood (freshly planed)	0.4	0.90
White paper	0.75	0.95
Tar paper	0.05	0.93
White plaster	0.93	0.91
Bright galvanized iron	0.35	0.13
Bright aluminum foil	0.85	0.04
White pigment	0.85	0.96
Grey pigment	0.03	0.87
Green pigment	0.73	0.95
White paint on aluminium	0.80	0.91
Black paint on aluminium	0.04	0.88
Aluminium paint	0.80	0.27–0.67
Gravel	0.72	0.28
Sand	0.24	0.76

from: Environmental Site layout planning, Littlefair, PJ, et al. , 2000, BRE publication, London,

Invloed van groen in de stad



D.E. Bowler et al. (2010) 147–155



Yu an Hien (2006)

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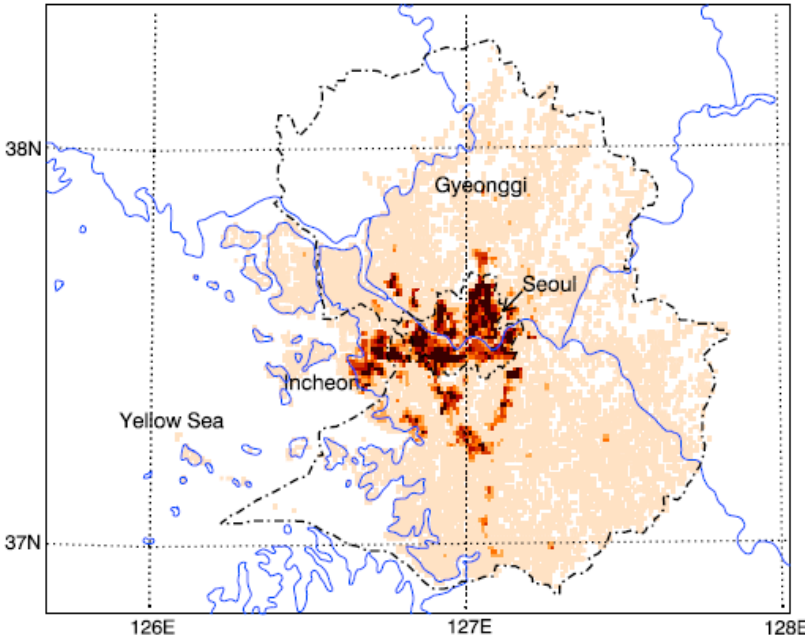
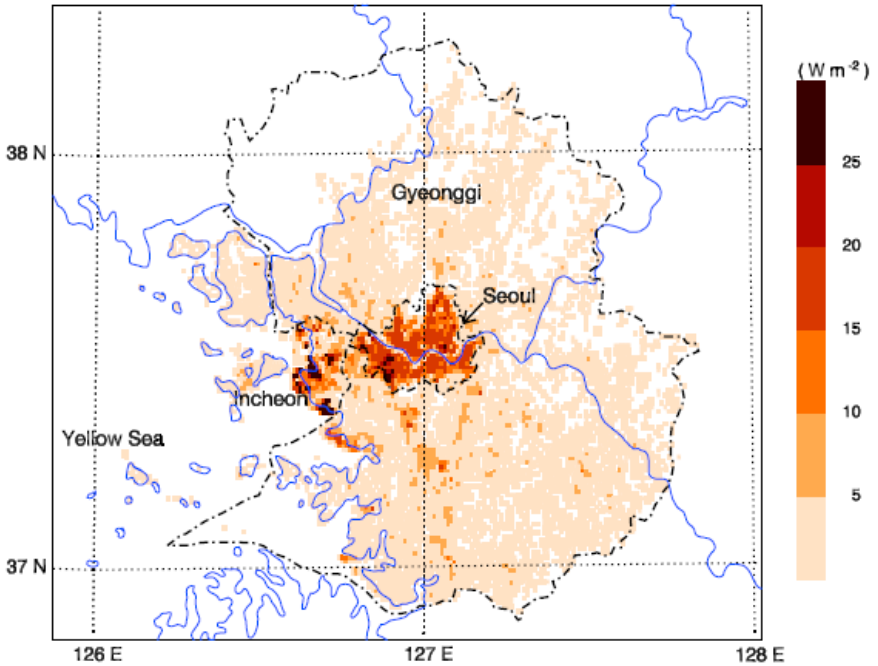
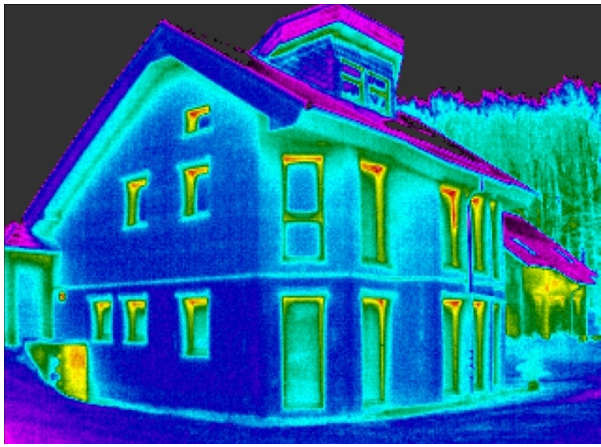
Anthropogene hitte





From: S.-H. Lee & C.-K. Song & J.-J. Baik & S.-U. Park (2009) Estimation of anthropogenic heat emission in the Gyeong-In region of Korea, Theor Appl Climatol 96:291–303



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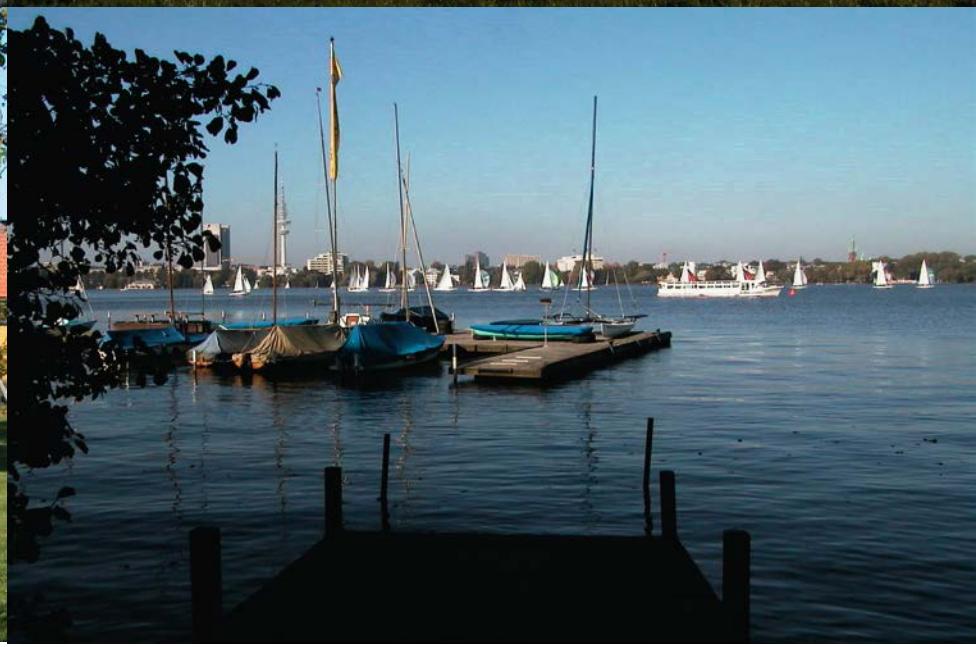
Klimatopen



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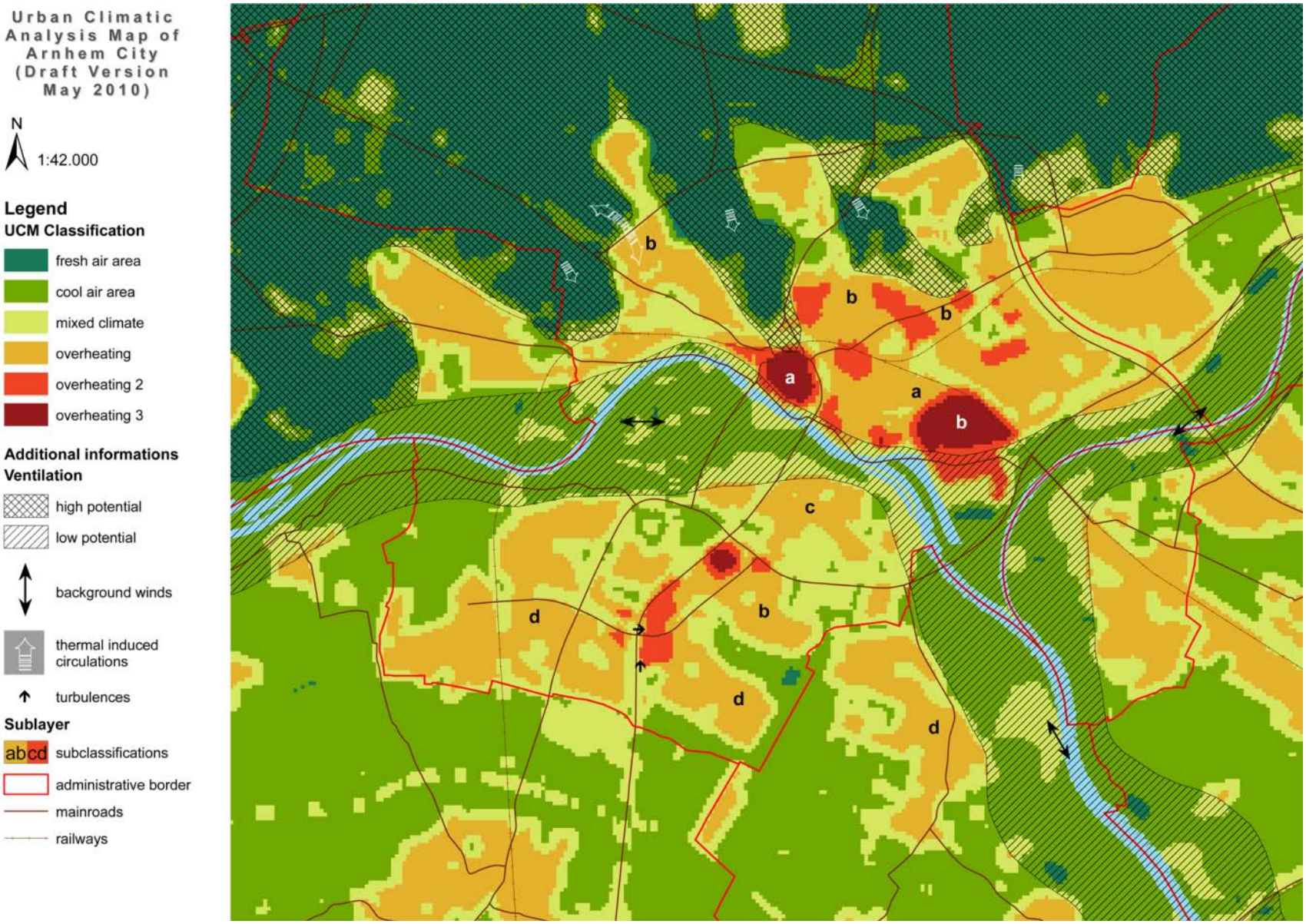
Stadsklimaatkaart Arnhem



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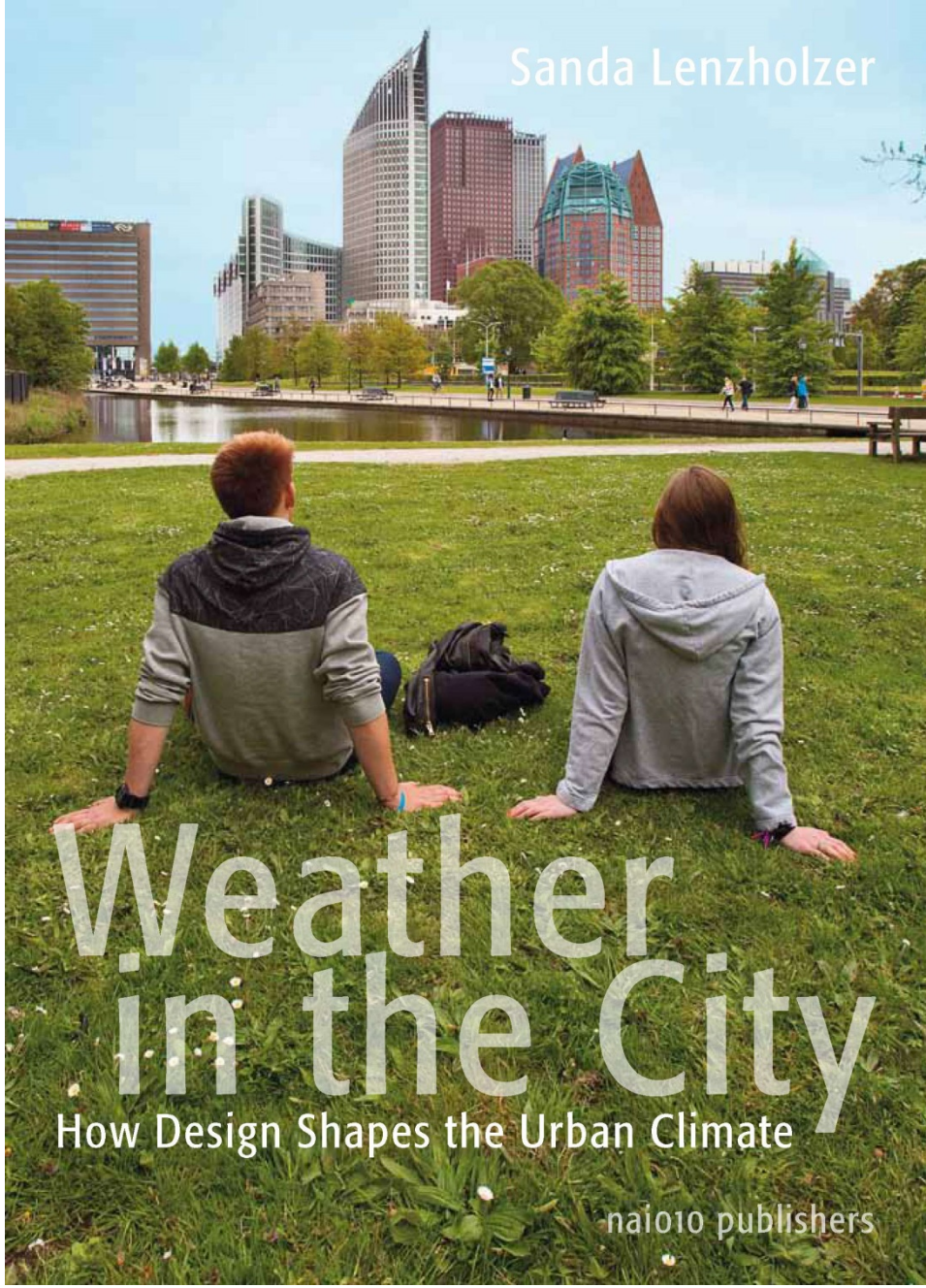

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