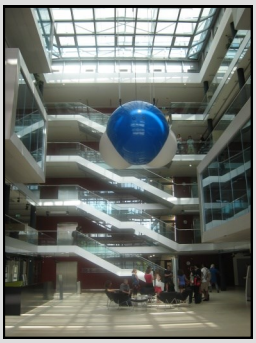
Jones Kopitsis

Building Physics - Bauphysik

Jones Kopitsis AG was formed in 2007. The Company has extensive experience of Sustainable Design and Building Physics.
The work has contributed to the successful performance of a range of building types, ensuring good quality environments, energy efficient design and integrating building physics into high standards of architecture.
Jones Kopitsis AG has carried out design and research in Middle East, China, Malaysia, and is experienced in addressing a range of local climate conditions.



www.joneskopitsis.com

JonesKopitsis

Content

About us

Prof. Dr. Phil Jones

- Partner of Jones Kopitsis AG
- Chair of Architectural Science, Welsh School of Architecture, Cardiff University
- Chair of Wales Low Carbon Research Institute (LCRI)
- MSc Sustainable Design of Buildings, British University in Dubai
- Visiting Professor: Tianjin, Chongqing, Putra, Xi'an, Hong Kong
- Chair Built Environment Sessions WFES Abu Dhabi 08 and 09
- Chair EU COST Action C23 Low Carbon Urban Environments
- PhD supervisor for over 30 students, including 2 Masdar staff
- Currently working on research and design projects in Middle East, China and Europe

Mr. Denis N. Kopitsis

- Owner and Director of Kopitsis Bauphysik AG, which is a building physics consultancy company based in Wohlen, Switzerland formed in 1986.
- Partner of Jones Kopitsis based in Kerns, Switzerland formed in 2007.
- Visiting Lecturer at the Welsh School of Architecture, Cardiff University (since 2001)
- Honorary Research Fellow at the Welsh School of Architecture, Cardiff University
- Member of:
  1. SIA Association of Swiss Engineers and Architects
  2. SGA Swiss Acoustical Society
  3. Chartered Institution of Building Services

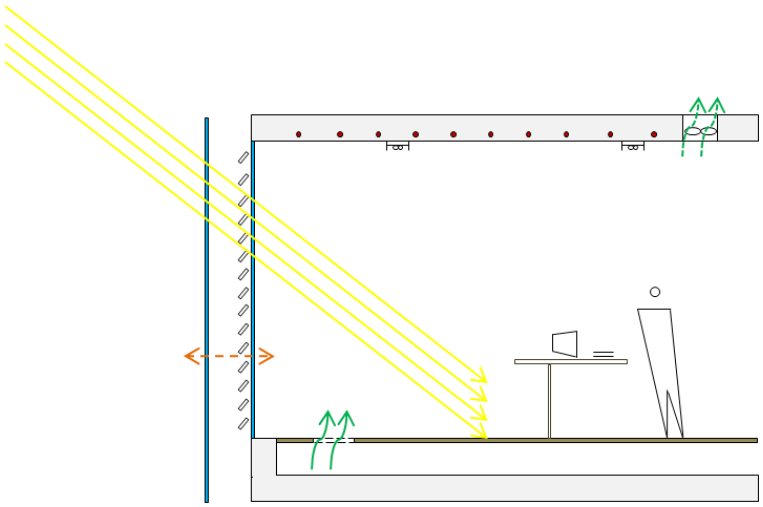
Expertise

Sustainable Design Consultancy
- Passive design strategies
- Efficient HVAC
- Renewable energy systems

Prediction of Building Performance
- Computer dynamic modelling of thermal comfort and energy use
- Air flow (CFD) modelling of ventilation and indoor air flow pattern
- Sunlight and daylight performance

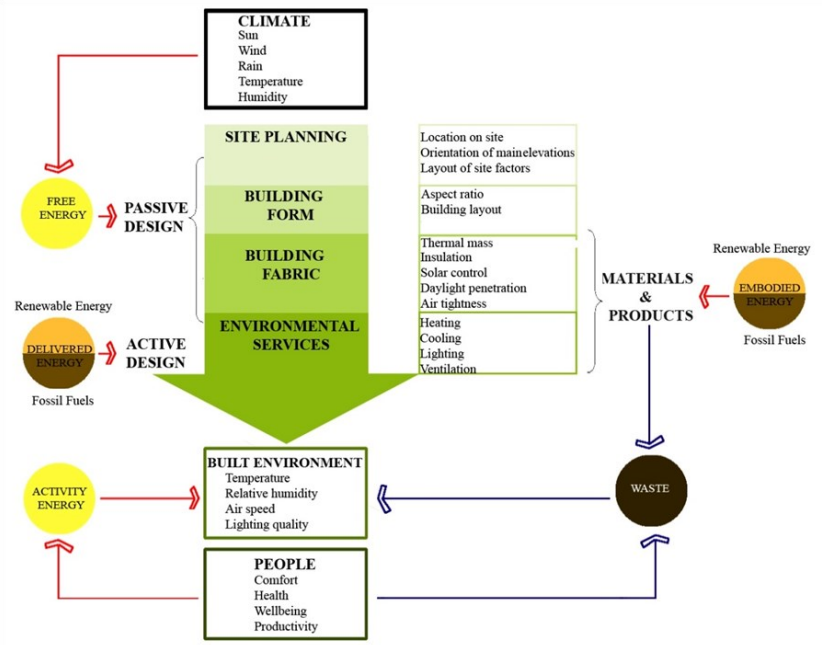
Energy simulation
- Sustainable Urban Planning
- Set targets and guidelines for sustainable urban planning
- Urban scale energy simulation
- Analysis of external environments

BREEAM, LEED, MINERGIE and SNBS Assessment
- Offer different schemes for a range of environmental assessment methods
- Work with the design team from the start to advise on how to achieve the desired rating



Sustainable Design Consultancy

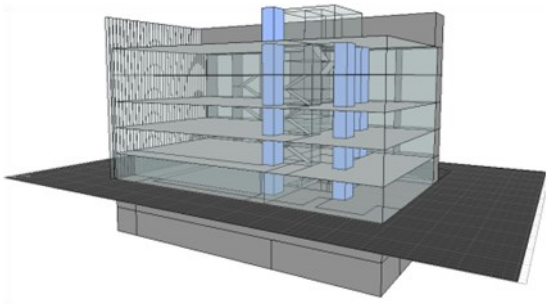
JonesKopitsis aims to work collaboratively with clients, architects, engineers to integrate sustainable design principles at the early stage of architectural design. Design consultancy provides professional advice on environmentally conscious design of buildings and energy efficient design, including passive design, efficient HVAC, renewable energies, waste management and water efficiency. We can carry out LEED projects and BREEAM International scheme assessment.



Reports we involved to develop

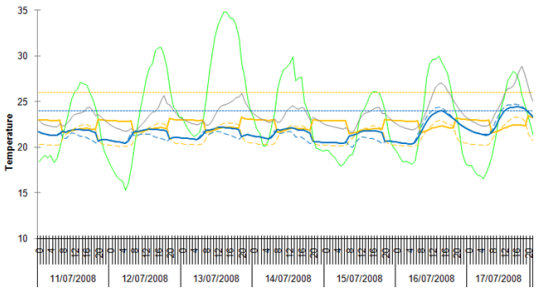
Prediction of Building Performance

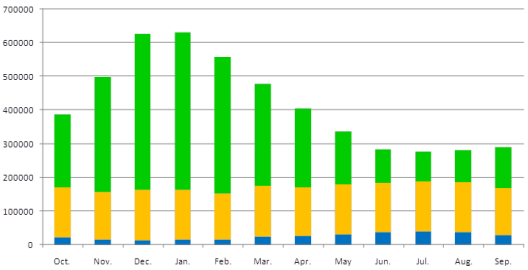
Our advanced prediction tools (computer assisted models and scale models) can provide visualized results which have been proved very close to reality.

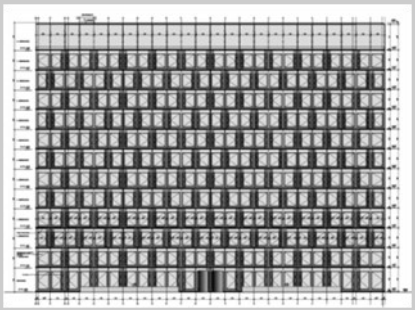


Architect: Rem Koolhaas

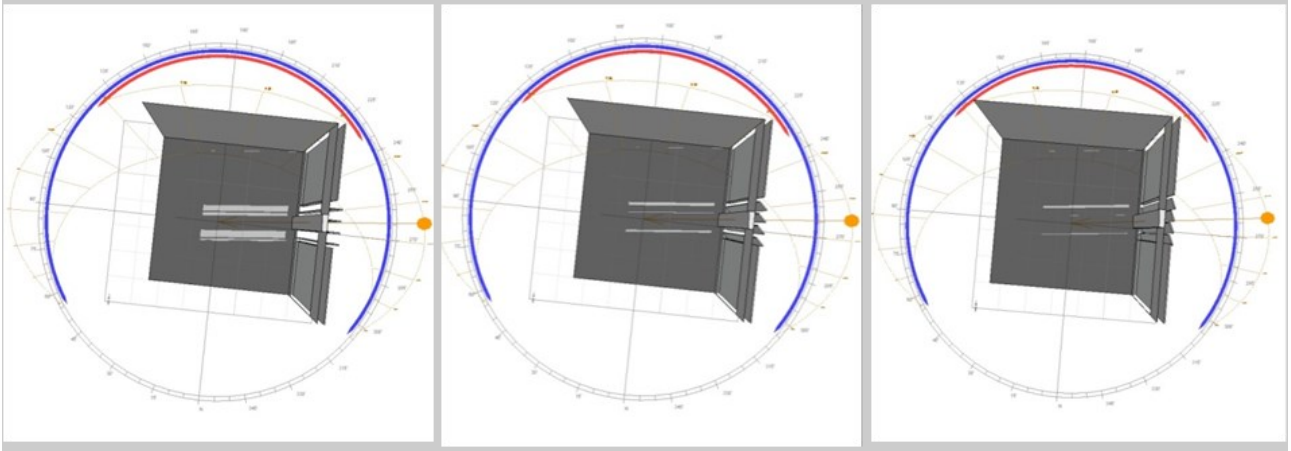
The **dynamic simulation** can explore the designed building in operation and produce accurate results of hourly thermal comfort, relative humidity and energy performance.







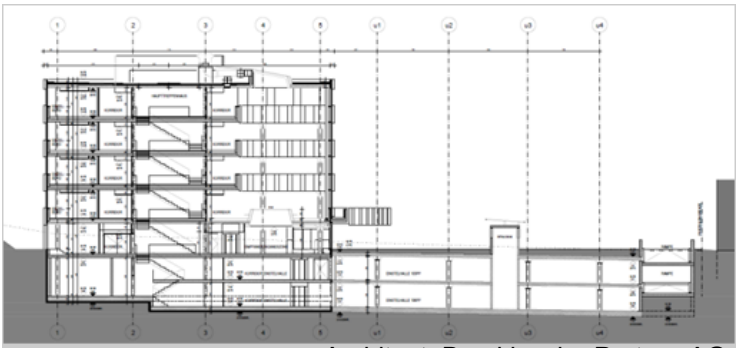
Architect: Burckhard + Partner AG



Prediction of Building Performance

Architect: David Chipperfield Architects

The air flow simulation works with the dynamic model can examine the air flow pattern, for example to check whether there will be downdraught again glazed facade. Meanwhile, innovation ventilation strategies can be tested.



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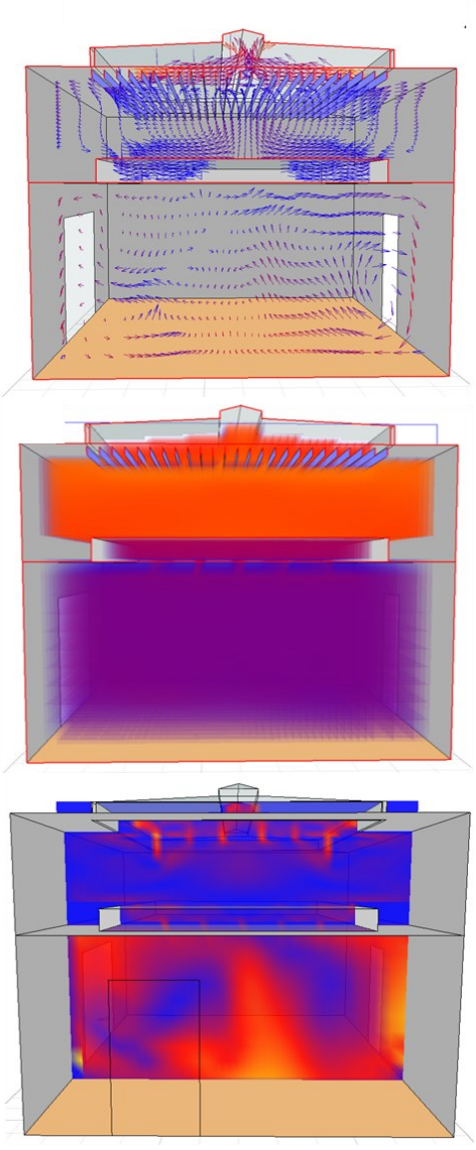
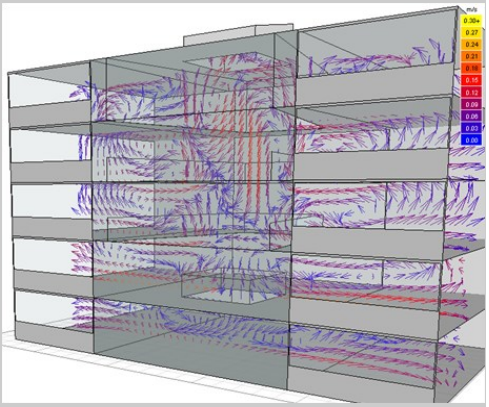
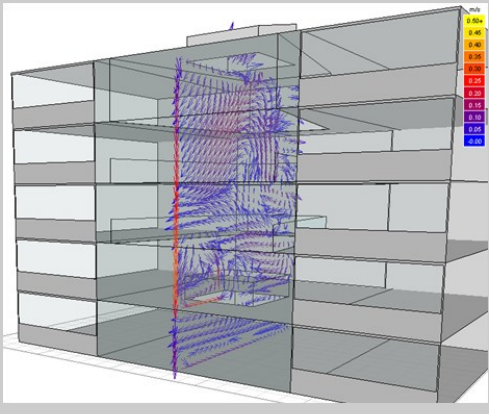


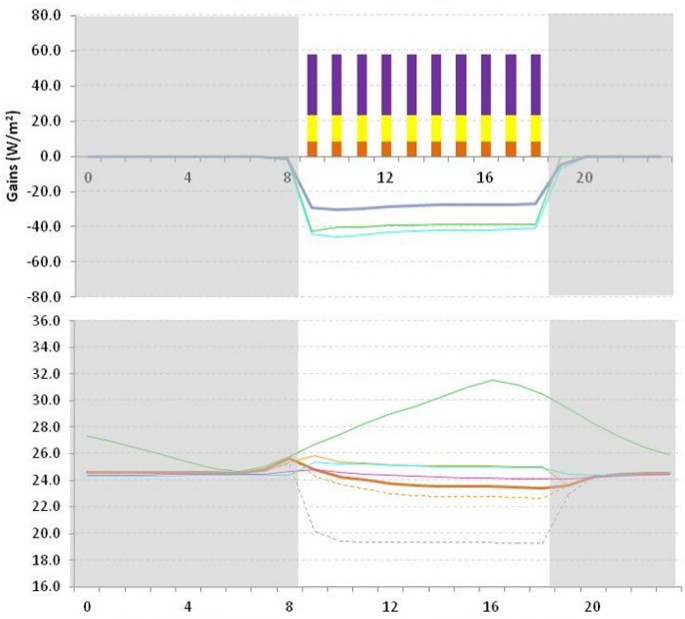


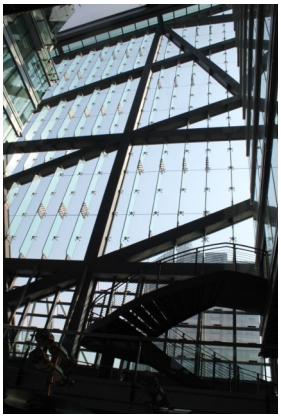


Prediction of Building Performance

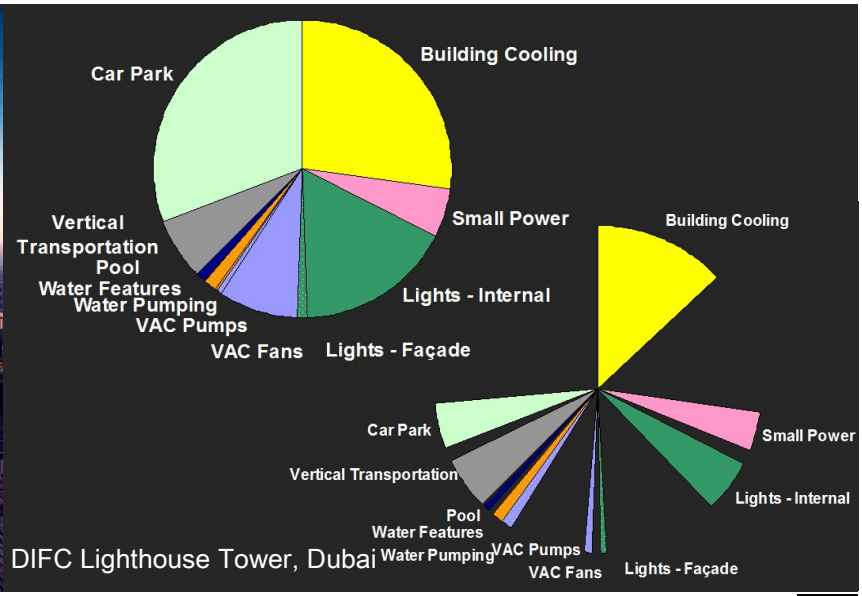
Projects:

Parkview Green is one of China's largest sustainable architecture projects. This hotel, shopping and commercial hub was designed with energy efficiency as its goal. The lighthouse tower is a green building with a huge emphasis put on reducing its carbon footprint and conserving energy.





Parkview Green, Beijing



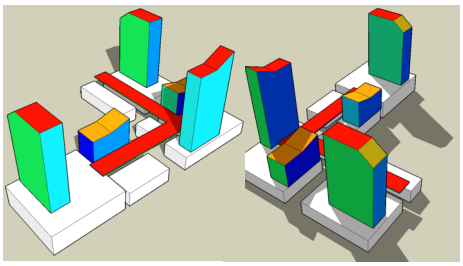
DIFC Lighthouse Tower, Dubai

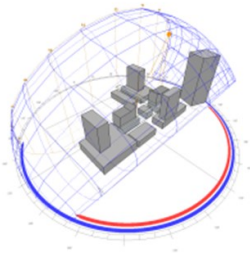
Prediction of Building Performance

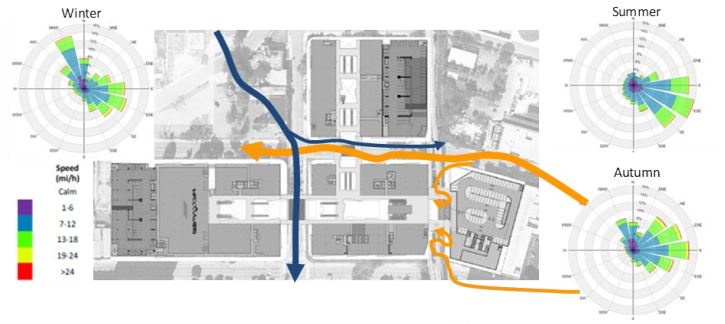
Projects:

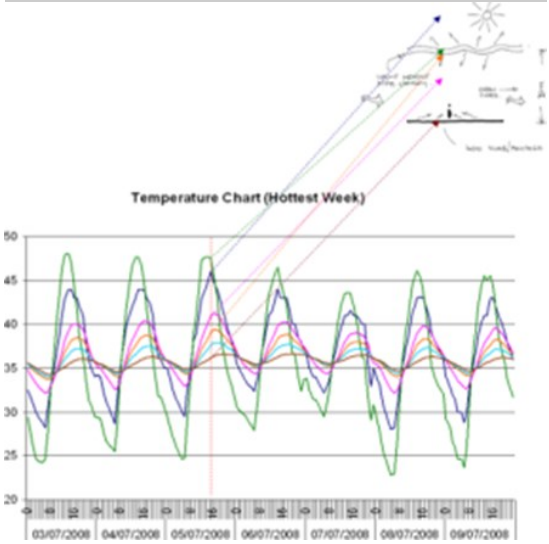
Naturally Ventilated Mall, Saudi Arabia

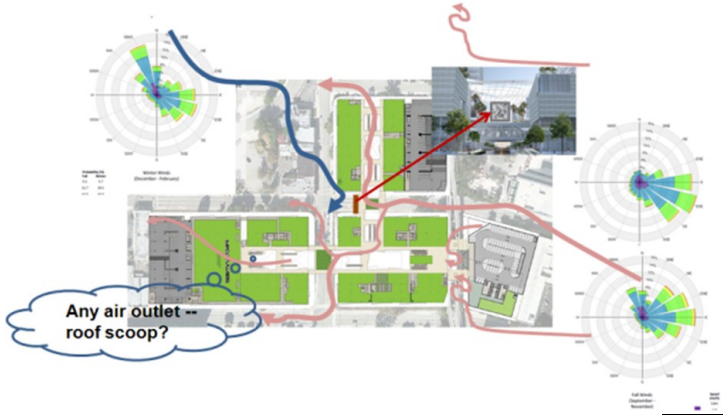
Brickell Citicentre, Miami, Florida







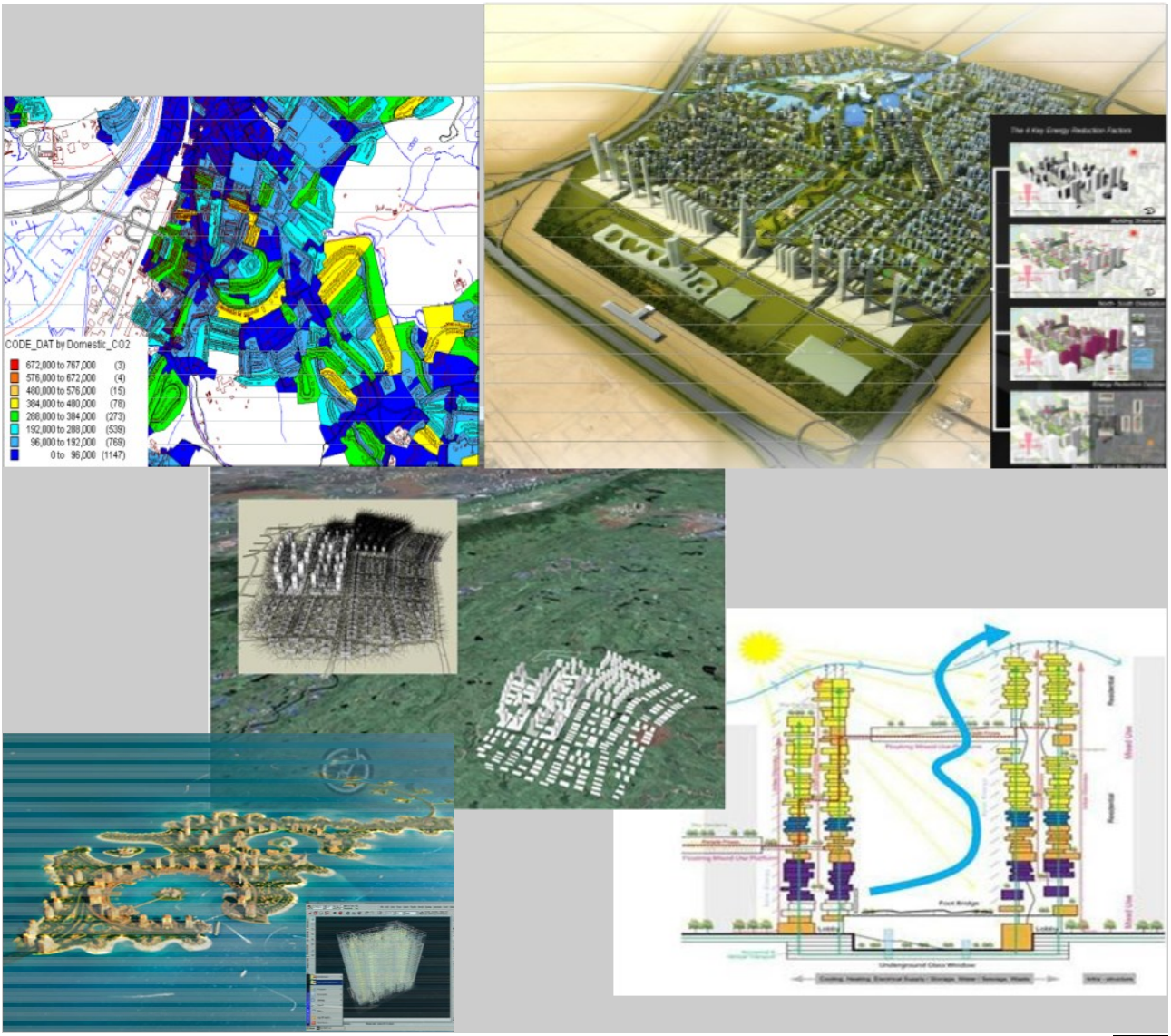




Sustainable Urban Planning

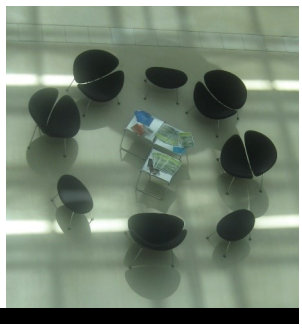
JonesKopitsis is experienced in delivering sustainable urban scale master planning. A system has been set up to taking into account of the seven main issues of urban planning: land use, accessibility, mobility, green/ blue structure, community, stakeholders and aesthetic.

Tianjin Eco-city, China



JonesKopitsis

Case studies

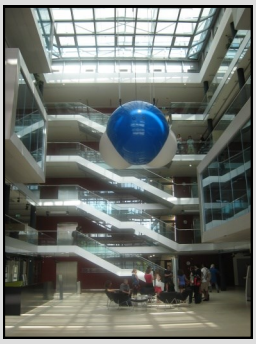


Jones Kopitsis

建筑技术

JonesKopitsis

Jones Kopitsis 在低碳设计和建筑技术方面拥有丰厚的经验。其业务已经成功帮助3500多座建筑实现其最优的建筑性能，包括高质量建筑环境，能源高效及高标准建筑设备整体设计。多年来该公司在中东，中国，马来西亚和欧洲各国开展了多项设计和研究，同时积累了一系列基于不同地方条件的设计和研究经验。



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目录

关于我们

菲尔 琼斯 教授

- 卡迪夫大学建筑学院院长
- 威尔士低碳研究中心主席
- 世界未来能源首脑会议 （2008/2009）主席
- 迪拜英国大学可持续发展建筑设计硕士课程创办人
- 天津大学，重庆大学，西安建筑科技大学，香港理工大学访问教授
- 指导过30多位博士生
- 目前致力于中国，中东和欧盟各国的研究和设计项目
- 建筑技术顾问公司Jones Kopitsis AG创始人及董事长

丹尼斯 考皮特西斯 先生

- 瑞士著名建筑技术顾问公司Kopitsis Bauphysik AG的创始人及董事长， 公司创建于1986年。
- 建筑技术顾问公司Jones Kopitsis AG 合伙人
- 瑞士工程师和建筑师协会成员， 瑞士声学研究会成员，注册建筑设备师
- 卡迪夫大学建筑学院访问教授
- 卡迪夫大学建筑学院荣誉高级研究员

专长

可持续建筑设计设计咨询

被动式设计手法

高效建筑设备设计

可再生能源利用

建筑性能预测

软件动态模拟室内热工环境和能源需求

CFD软件模拟自然通风条件和室内空气流动模式

物理模型模拟风对建筑物的影响， 及不同地区日照和自然采光情况

城市尺度可持续规划

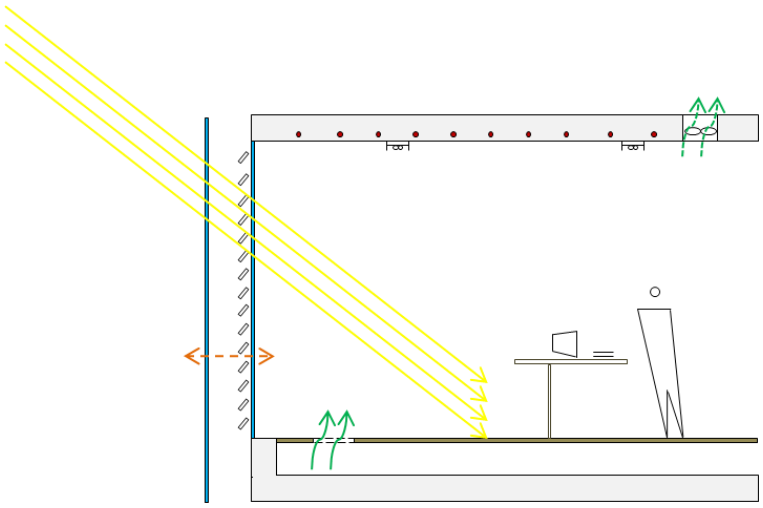
可持续城市规划目标设定

可持续城市规划导则编制

后期评估

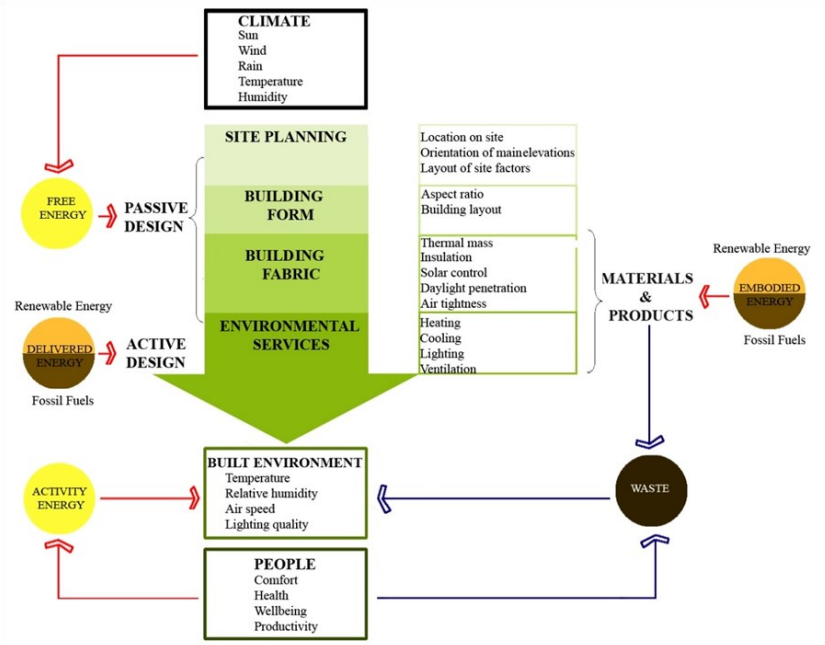
绿色建筑评估体系 (BREEAM, LEED, MINERGIE 和 SNBS）

帮助建筑团队实现需要的标准等级



可持续建筑设计咨询

JonesKopitsis 致力于如何在建筑设计早期与甲方，建筑师，工程师合作将整体式可持续设计手法应用于建筑设计中。建筑的环境设计，节能设计主要包括有效的被动式设计手法，高效的建筑设备设计， 可再生能源利用， 废弃物管理 和节水设计。

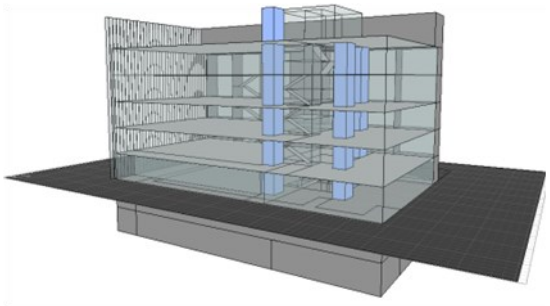


参与编制多国可持续设计的规范标准

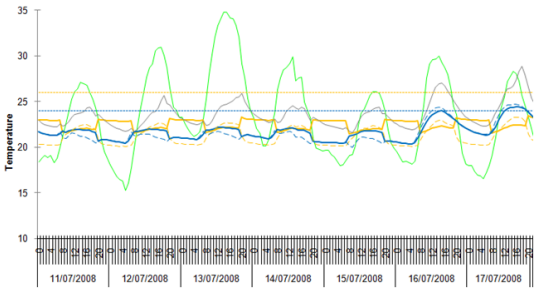
建筑性能预测

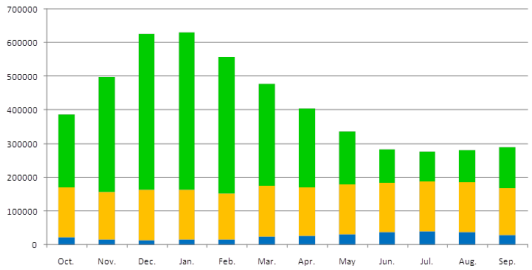
JonesKopitsis 运用先进的预测工具提供精准并且视觉化的模拟结果指导建筑设计。

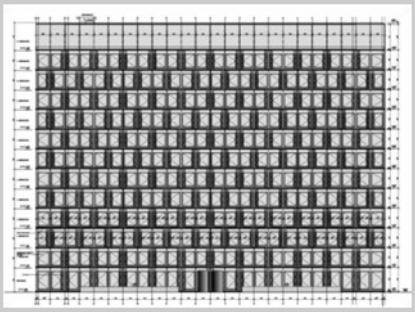
动态模拟软件通过结合当地室外气候情况探究建筑在使用过程中的热舒适度，相对湿度以及能源需求。模拟结果可以精确到小时乃至分钟。



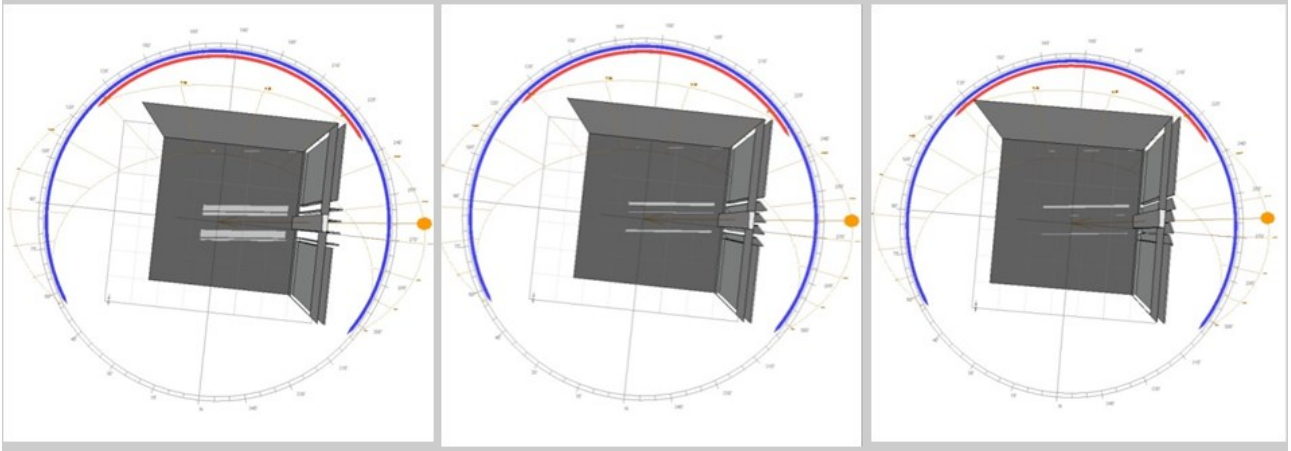
Architect: Rem Koolhaas







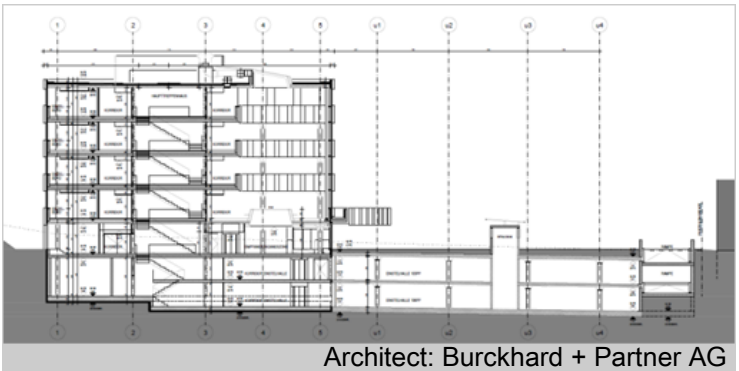
Architect: Burckhard + Partner AG



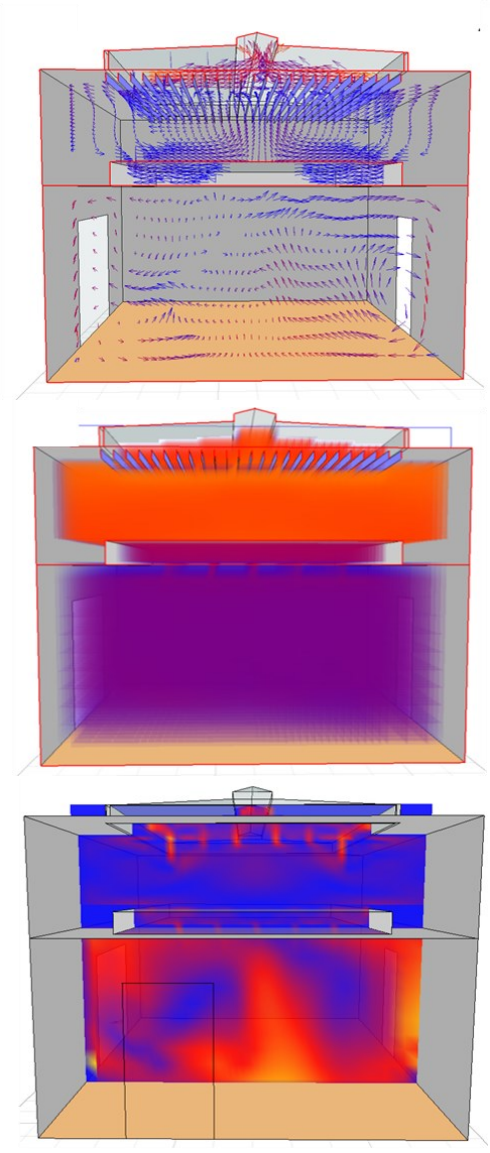
建筑性能预测

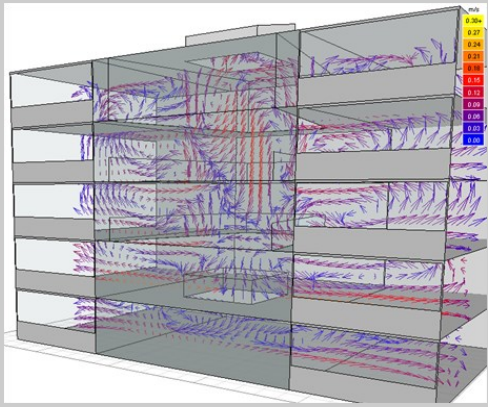
Architect: David Chipperfield Architects

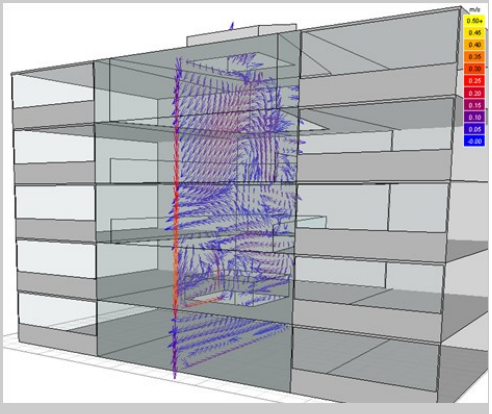
通过与动态模拟软件结合，CFD模型可以模拟室内自然通风条件和空气流动模式，如测试是否有冷空气沿窗内表面下沉。此外，CFD模型还可以辅助设计及测试创新的通风手法。



Architect: Burckhard + Partner AG





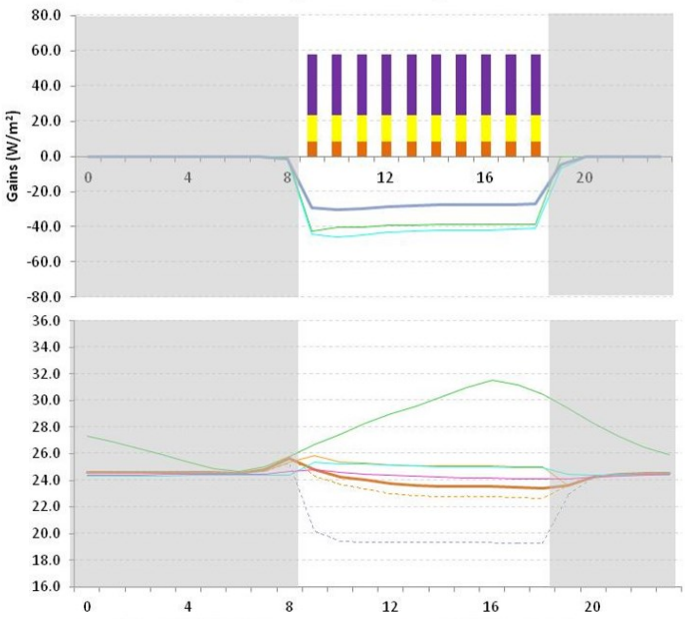


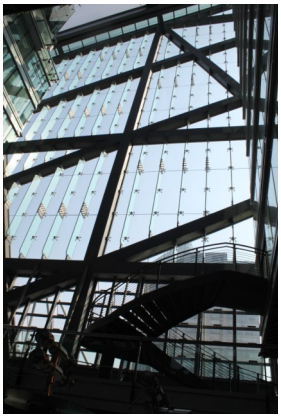
Prediction of Building Performance

项目实例:

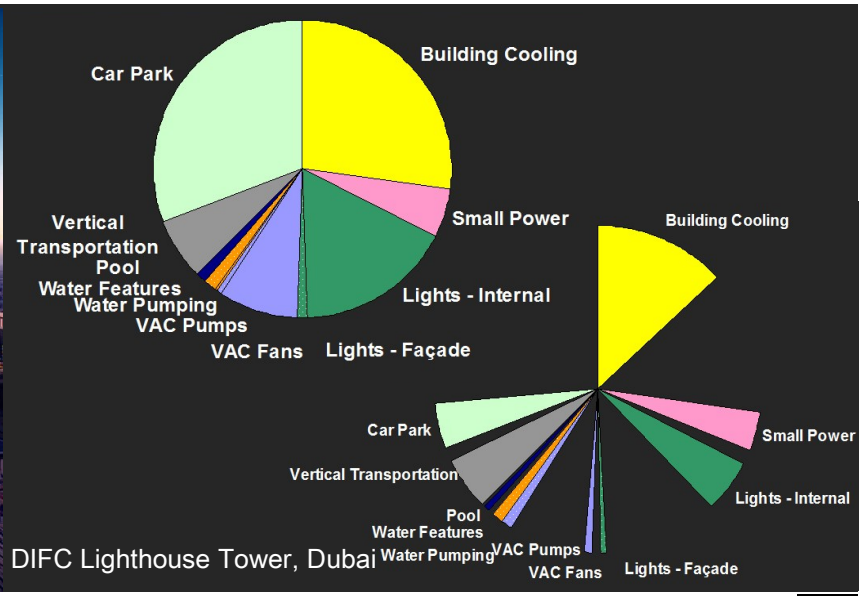
侨福芳草地项目是中国最大的以可持续发展为设计理念的项目之一。 这座集办公，商业及酒店一体的综合建筑以节约能源创造适宜的室内环节为设计目标。

迪拜灯塔是一座绿色摩天大楼，注重降低碳足迹以及节约能源。





Parkview Green, Beijing



DIFC Lighthouse Tower, Dubai

建筑性能预测

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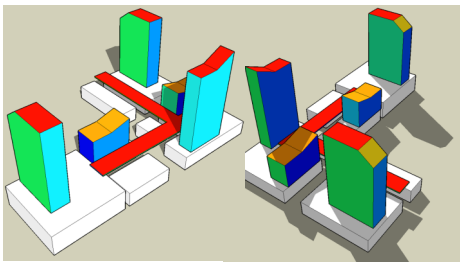
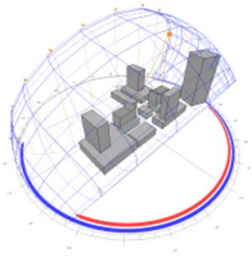
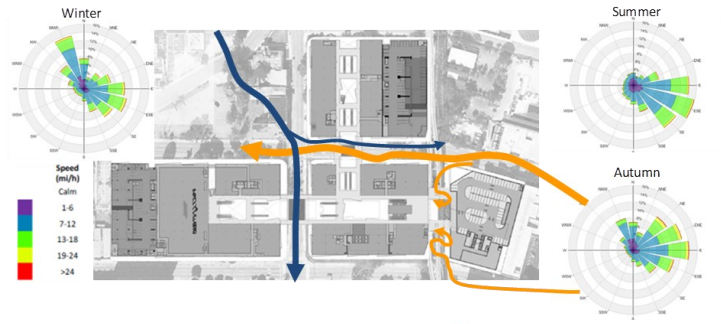
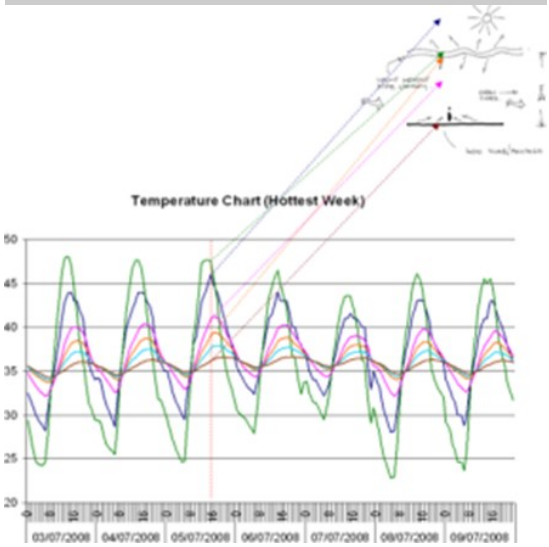
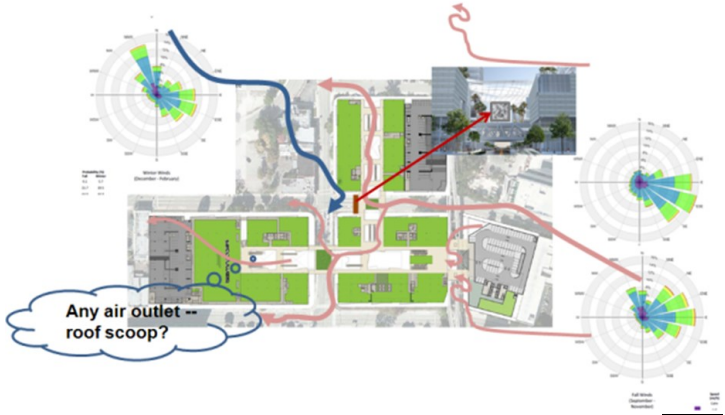






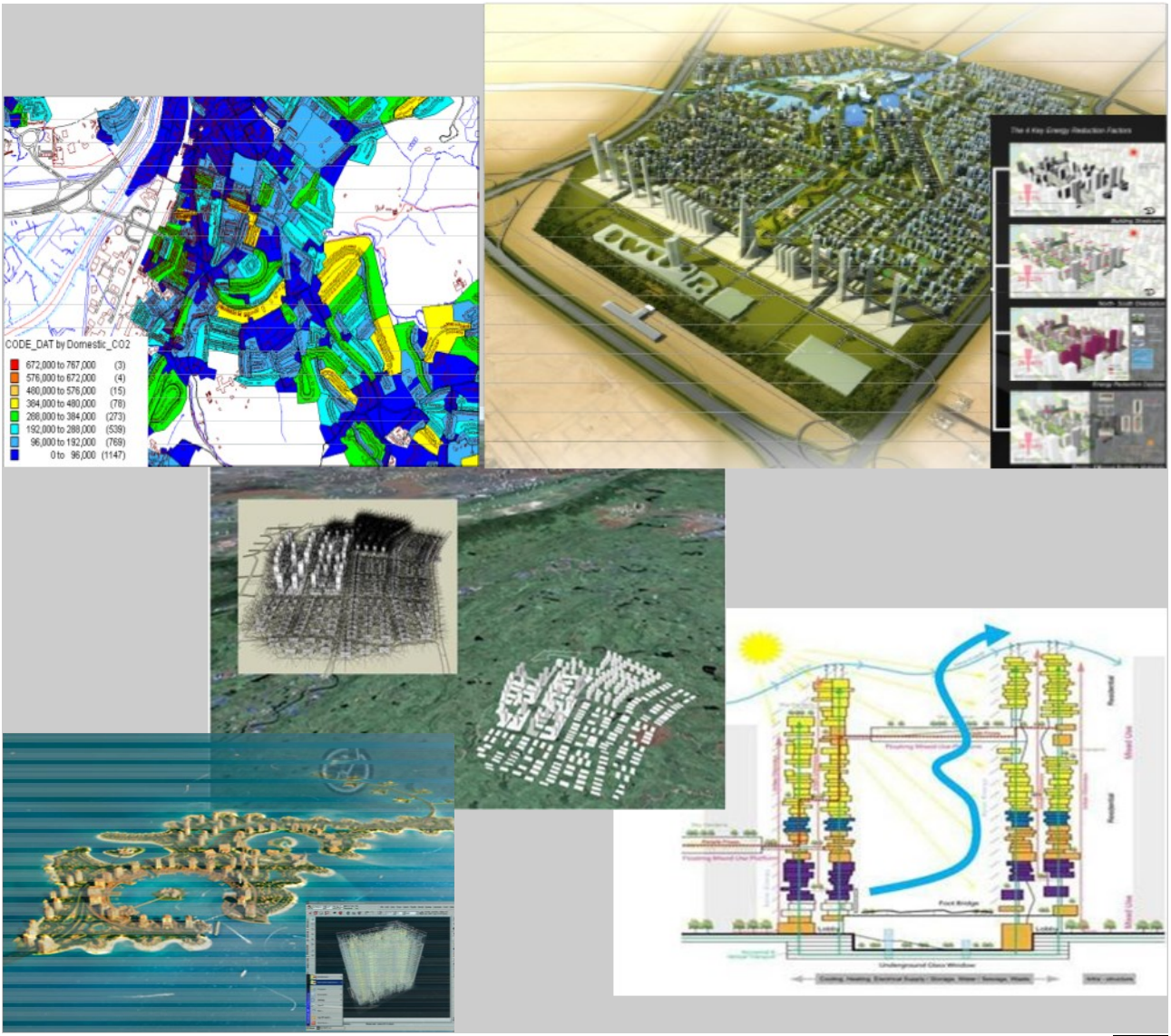




城市尺度可持续规划

JonesKopitsis 在城市尺度的可持续规划方面拥有丰富的经验， 包括可持续城市规划目标设定， 可持续城市规划导则编制和后期评估。JonesKopitsis 已经建立起一个对城市规划各要素全面考虑的系统，包括土地使用，可通达性，交通，水体/绿地设施，社区，股东和美观。

天津生态城，中国



JonesKopitsis

实例