



Tomas Gaertner

ARB RiBA, Passivhaus Designer. CEPH

Director/Architect, SE3Design

Tomas worked as an Architect in Germany before moving to the UK in 2007 to join a multidisciplinary practice of Architects and Mechanical Engineers. As a director and lead architect he was responsible for the practice's large scale, multi residential, commercial, care and leisure facility Passivhaus projects and also lead on some of the practice's government funded climate change research projects.

Tomas' passion is finding creative and innovative responses to deliver healthy, socioecological and life enhancing environments.

In 2018 he joined SE3Design as managing director and principal architect. SE3D are an integrated design lead team of architects, project managers, cost consultants and Passivhaus designers.

Tomas is a regular speaker at conferences like the UK Passivhaus conference, AECB conference and Ecobuild and has been working regularly with the RIBA to deliver the sustainability seminars on their Core CPD programme since 2018. He is a chartered member of the RIBA and ARB, Certified Building Biologist IBN and Certified Passivhaus Designer CEPH.

T O M A S G A E R T N E R

Healthy, Human Centred, High Performance Design

Buildings today often contain inherent chemical, physiological and biological risks as a result of materials and construction processes. On average we spend about 90% of our time indoors and 30% of our time in bedrooms. With these exposure times even low concentrations of potentially harmful substances can affect our health in the long term and cause chronic diseases. More vulnerable inhabitants like children

and elderly persons are particularly exposed to this risk.

Simultaneously national building codes and regulations have fallen behind WHO international standards for health and wellbeing.

Building Biology is the holistic study of the interrelationships between humans and their man-made environment. It is the science of creating healthy, life enhancing buildings. The Institute of Building Biology and Sustainability was founded in Germany in 1983 and from this the Building Biology Standard (Standard der Baubiologischen Messtechnik / SBM) was developed. This standard (most recently SBM-2015) gives an overview of the physical, chemical and biological, risks encountered in different parts of a building. The Building Biology movement is growing with over 6000 architects, doctors, surveyors and material suppliers trained internationally to create interiors which promote life within the built environment.

This session will outline the 25 building biology principles, give an overview of design strategies to meet this challenging standard, how other UK performance-, eco- and health standards compare and which of them are useful when assessing materials and products.

