

1992

CELEBRATING TWENTY YEARS

2012

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THE  
HANNOVER  
PRINCIPLES

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Design for Sustainability

WILLIAM MCDONOUGH & MICHAEL BRAUNGART

# THE HANNOVER PRINCIPLES

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## Design for Sustainability

1992

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2012

- 1 Insist on the right of humanity and nature to coexist** in a healthy, supportive, diverse and sustainable condition.
- 2 Recognize interdependence.** The elements of human design interact with and depend upon the natural world, with broad and diverse implications at every scale. Expand design considerations to recognize even distant effects.
- 3 Respect relationships between spirit and matter.** Consider all aspects of human settlement, including community, dwelling, industry and trade, in terms of existing and evolving connections between spiritual and material consciousness.
- 4 Accept responsibility for the consequences of design** decisions upon human well-being, the viability of natural systems and their right to coexist.
- 5 Create safe objects of long-term value.** Do not burden future generations with requirements for maintenance or vigilant administration of potential dangers due to the careless creation of products, processes or standards.

- 6 **Eliminate the concept of waste.** Evaluate and optimize the full life cycle of products and processes to approach the state of natural systems, in which there is no waste.
- 7 **Rely on natural energy flows.** Human designs should, like the living world, derive their creative force from perpetual solar income. Incorporate this energy efficiently and safely for responsible use.
- 8 **Understand the limitations of design.** No human creation lasts forever, and design does not solve all problems. Those who create and plan should practice humility in the face of nature. Treat nature as a model and mentor, not as an inconvenience to be evaded or controlled.
- 9 **Seek constant improvement by the sharing of knowledge.** Encourage direct and open communication between colleagues, patrons, manufacturers and users to link long-term sustainable considerations with ethical responsibility and to reestablish the integral relationship between natural processes and human activity.

The Hannover Principles are committed to transformation and growth in the understanding of our interdependence with nature and may be adapted as our knowledge of the world evolves.

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Prepared in 1992 by William McDonough Architects, NY.  
Commissioned by the City of Hannover, Germany, as design principles for Expo 2000, The World's Fair.

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As an architect and designer, I am someone who spends time thinking about how we can imagine a future of abundance for our children. In 1991, at the suggestion of Dr. Michael Braungart, I was commissioned by the City of Hannover, Germany, to craft sustainable design principles for Expo 2000, The World's Fair. The result was *The Hannover Principles: Design for Sustainability*, which was officially presented by Hannover as a gift to the 1992 Earth Summit's World Urban Forum in Rio de Janeiro, Brazil.

If design is the first signal of human intention, our intention today can be to love all ten billion people who will live on our planet by 2050. We can do this. If we imagine and embrace our cities as part of the same organism as the countryside, the rivers and the oceans, then we can celebrate ourselves, all species and the natural systems we support and that support us. This is our design assignment. If we are principled and have positive goals, we can rise to this occasion. It will take us all; it will take forever—that is the point.

*William McDonough, FAIA, Int. FRIBA*