Do we need another book on architecture? Aren’t the rows of books full of photos of the latest award-winning buildings more than enough to define what good architecture is? If we have any doubts, the leading architecture critics (Western, that is) will tell us in no uncertain terms who is a great architect today: world architecture is defined exclusively by those carefully-selected projects. After all, those individuals — champions of the largest construction companies and the biggest multinational engineering firms — do the most prestigious projects around the world. That alone should validate their work!

But... there is a nagging doubt. What if we look at or visit an award-winning building by a star architect and find the experience unsettling? How is it possible that we don’t appreciate this great piece of architecture by a famous person (universally praised, or at least the global media make it seem that way) and just can’t feel comfortable with it? What if the famous building makes us ill-at-ease and even sick to our stomach? Or if nothing is obviously wrong with it — perhaps it feels odd and awkward to be in — yet long-term exposure to it makes us increasingly depressed, and we find that we get sick much more often than before? Could something be happening here that we don’t know about, and which is never mentioned?

This collection of essays offers an unbiased view of what a group of friends and colleagues consider to be good (and bad) architecture. The book's goal is to change the way architecture is evaluated, and thus to change the way it is practiced. I present all of my arguments coming from science and the scientific method. A groundswell is taking place, with socially-responsible people turning to nature and science for techniques of building that will not destroy our planet. I describe essential new results I wish to introduce into the architecture curriculum. This material is not normally known to architects, and, moreover, is not easy to locate.

The innovative design tools collected here are intended to help young architects in their education, and consequently in their practice. These results are experimentally verifiable. Young practitioners and students from all over the world are desperately searching for precisely such methods, to free their creative potential while designing adaptive spaces that possess healing properties. New architectural principles such as Biophilia and Evidence-Based Design help to produce a substantially healthier environment for the inhabitants of buildings from what has
been taught up to now in the schools. Certainly, this is a criterion that many young architects wish to apply; yet in the past, the design tools were not available.

In my experience with architecture students, however, I find serious conceptual obstacles to teaching them adaptive design. Somehow, knowledge from their previous courses proves an obstacle to learning the new things I'm trying to teach. But it is not knowledge itself that is the problem, since incorrect knowledge is easily corrected after an explanation. Prior education and exposure to others' opinions narrows the students' worldview so much that it proves extremely difficult if not impossible for them to profit from new ideas.

An innovative approach to architectural education relevant for our times has to offer a foundations course early on. Already, some of my friends expressed doubts: "Can inexperienced students actually comprehend your scientific arguments? How can young people decide what is true or not true? They will become confused and frightened and dismiss what you are saying. They want to be architects so as to emulate today's great architects: while you, an outsider, criticize them!" Nevertheless, this is precisely why it is imperative to reach out to students at the very beginning of their architectural education: it is then that they pick up concepts that determine how they design.

And thus, this material is optimistically presented for use as a textbook in an introductory architecture course. In the context of generally improving architectural education, it is not necessary that all of the chapters be covered then and there. There is so much material new to the present-day architecture curriculum that adopting any portion of it would be immensely beneficial. Instructors might be attracted by all the new and unfamiliar material. The book helps to inform an instructor of results that he or she was not aware of, and would then consider presenting in class.

What used to be taught everywhere fits into a very narrow and restricted niche, and also studiously skirts around the topic of human adaptation. Many of my architectural colleagues typically adopt for their courses several books chosen from literature, music criticism, philosophy, etc. While interesting enough in themselves, they thoroughly distract the student from the meaning of architecture. The actual course consists of being shown buildings by famous architects, while the instructor praises them as having outstanding qualities. Students are expected to copy those, even though their value is never explained.

I'm providing tools that students can use to liberate their own creativity, unrestricted by fashion or convention, and to produce new marvelously adaptive and human buildings. At the same time, any building judged to be poorly designed should not be copied just because its architect is famous. Criteria are not applied in post-occupancy evaluation, when it is too late to fix the major problems, but to identify problems already in the design stage. We know with some degree of accuracy beforehand whether or not a building will provide a physiologically and psychologically healthy environment, and can indeed anticipate difficulties in how it will interact with its users.
And this is where I run into trouble with my architectural colleagues. They get excited whenever the scientific method presented here explains a successful aspect of a building by a famous architect. They immediately see that we have new tools for analyzing form, and users’ responses to it. The analysis seems like a very good idea. However, they ignore those same results if another iconic building is judged as deficient. Those persons have a strongly negative reaction whenever the value of an architectural icon is questioned. They are terrified by the risk that new developments pose for the established order. Their admiration for the wonderful explanatory and predictive power of the present results turns into alarm: the implications are far too dangerous.

Is architecture then a service profession providing housing, working spaces, and environmental wellbeing for humanity? Architecture schools loudly proclaim that their real goal is how to better serve humankind; but instead they teach students how to copy the rich and famous architects. Architectural academia makes the basic error of equating what’s good for the star architects and multinationals with what’s good for the people. It unfortunately fails to resolve this basic contradiction: could architecture be an extremely expensive fetish of erecting giant sculptures that look stunning on the covers of architectural magazines? A question that not many people try to address, since the answer turns out to be very embarrassing indeed.