

And again:—

Nature has neither kernel nor shell,
It is she that is All and All at once.*

What is even more detrimental to the general understanding of nature as a whole than this one-sided tendency, is *the want of a philosophical culture*, and this applies to most of the naturalists of the present day. The various errors of the earlier speculative nature-philosophy made during the first thirty years of our century, have brought the whole of philosophy into such bad repute with the exact empirical naturalists, that they live in the strange delusion that it is possible to erect the edifice of natural science out of mere facts, without their philosophic connection; in short, out of mere knowledge, without the understanding of it. But as a purely speculative and absolutely philosophical system, which does not concern itself with the indispensable foundation of empirical facts, becomes a castle in the air, which the first real experiment throws to the winds; so, on the other hand, a purely empirical system, constructed of nothing but facts, remains a disorderly heap of stones, which will never deserve the name of an edifice. Bare facts established by experience are nothing but rude stones, and without their thoughtful valuation, without their philosophic connection, no science can be established. As I have already tried to impress upon my reader, the *strong edifice of true monistic science*, or what is the same thing, the *Science of Nature*, exists only by the closest interaction, and the reciprocal penetration of philosophy and empirical knowledge.

* Natur hat weder Kern noch Schale,
Alles ist sie mit einem Male.