

BOOK REVIEW

by
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“Survival Skills for Scientists”, by Federico Rosei and Tudor Johnston

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Undoubtedly, one of the distinguishing peculiarities of our Era is the tremendous, and increasing, role that scientific knowledge plays in society, not only from the standpoint of the technological developments that impact humanity, on almost day-to-day basis, but mainly on the sociological and philosophical arenas. Indeed, science, as a profession, is a rather modern concept, for nearly 80% of scientists who have ever lived are still alive today! Not long ago, scientific pursuits were regarded, from a social point of view, either as a sort of eccentricity, a domain for impractical individuals, or as a curious hobby for those rare individuals who could afford to spend time, resources and effort in a non-profitable activity, comparable to collecting particular items, sometimes at a high cost. On the other hand, from the point of view of our very conception of Nature and our relationship with the phenomena around us, science has occupied, in the collective unconscious of today's human beings, and within a very restricted time frame, the key function that ancient archetypes

fulfilled for hundreds, if not thousands, of years. As a result, the phrase “society of knowledge” involves more than the simplistic description of the enormous volume of data available to nearly everyone nowadays, but rather the conceptualization of cognizance as a key element in the social network which represents human relations now and in the near future.

What results then is paradoxical, in view of the relevance of science, both as an intellectual concept as well as an important economic and sociological enterprise, in that there is an almost absolute lack of a conceptual framework that enables, on the one hand, the understanding of how modern science really works, as a human undertaking and, on the other, for the very practitioners of science very little understanding of the basic, severe and unwritten rules underlying their functioning as scientists, even though ignoring those rules can easily ruin a promising talent. In particular, those new to science find themselves often lost

in deciding many aspects: what specific problem to study within his/her area of expertise, where and how to publish, to whom to present results for support, to what extent a discovery of potential technological relevance should be disclosed, methods to avoid misstatements (or perhaps to profit by them!), why some colleagues are highly regarded and some others, perhaps just as good scientists as the former, are not, and many other questions that, rather than existing as abstract puzzles, represent the daily concerns of people starting a scientific career.

In this general context, Federico Rosei and Tudor Johnston's *Survival Skills for Scientists* not only fills a yawning gap in the literature, (for which the book deserves the attention of those interested, from whatever perspective in the science in today's world) but will likely stand as a keystone for an emerging area in "hard" and "soft" sciences: the analysis of science itself, both as an important new profession and as a social phenomenon of our day.

The combination of their personal characteristics of the authors are quite interesting: a young and promising talent and a well established scholar with years of experience; a Canadian-born citizen, educated in the post-WW II era some fifty years ago, and a recent European immigrant to the Americas, formed in the discipline of Materials Science which is undergoing explosive growth at the opening of the century. This attractive combination not only shows the merging of two different cultural perspectives, but also the encounter of two generations of professional scientists, whose perspectives and goals, although different from each other by necessity, contain in themselves the very core of science: the pursuit of (everyone's) truth. The book is organized into 7 chapters, from the Basic Choices to the "concluding verses" (*l'envoi* of

classic French poetry) dedicated to the real targets of the text: young scientists eager to make the best of their lifetime choice. More than a collection of personal experiences and opinions, the book presents an overview of all what an aspiring adept* to the world of science must know in order to survive in a very demanding and fascinating, yet sometimes cruel, game, as they properly describe in the chapter where a discussion of the "ecology" of professional science is presented. One particular serious problem of younger scientists is addressed in a full chapter: effective communication. The anecdotes of the chapter on "Cautionary Tales" could bear anyone's name and circumstances, and more than one reader will surely identify him/herself with some situations.

Finally, for colleagues in the natural sciences, the fact that "the map is the territory" has probably never been made clearer before the appearance of Federico and Tudor's book, which is not only delightful reading, but also an excuse for reflection on our own lifepaths, no matter at what stage we are.

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*** Footnote**

Lawrence M. Principe: "The Aspiring Adept: Robert Boyle and his Alchemical Quest", Princeton University Press (1998). This science was considered to be a gift of God, who solely decided whether an "adept" will reach the secrets of the Great Art.