becomes a branch of projective geometry.

These two points of view dominated the development of geometry during much of the 19th and early 20th centuries. Each made notable contributions to mathematical knowledge, but the paths of development were so divergent that the differential geometer and the algebraic geometer of 40 years ago often had little in common. Yet new concepts were quietly in the making; even though Kähler's original note, in 1933, created no great stir, today there are signs of a developing unity within geometry that attest to the importance of Kähler's concept and of recent work by Hodge, Kodaira, and others.

Although a Kählerian space, like the surfaces of classical differential geometry, carries a Riemannian metric, it is a complex analytic manifold rather than a sufficiently differentiable real one. In the second place, a Kählerian space induces in its tangent space (the space of differentials) a Hermitian geometry rather than an elliptic geometry. As a result, the class of Kählerian spaces includes not only the space of all linear subspaces (of a given dimension) of projective space but, more generally, any subspace which is algebraic and without multiple points.

Weil has done mathematics a great service, for his introduction to the subject should stimulate many mathematicians toward a more active interest in this new area of mathematics. His employment of the techniques of modern algebra and topology is effective and elegant. Of particular interest to the classical algebraic geometer is his treatment, in the final chapter, of theta functions and Abelian varieties.

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Nuclear Scattering. K. B. Mather and P. Swan. Cambridge University Press, New York, 1958. viii + 469 pp. Illus. $14.50.

The title of this book provides an accurate description of the contents. The authors begin with a brief sketch of the relationship between nuclear scattering information and nuclear forces. A considerable fraction (35 percent) of the book is then devoted to a description of experimental techniques used in charged-particle and neutron scattering experiments. The remainder of the book concerns itself with an extensive description of the analysis of nuclear scattering data, beginning with nucleon-nucleon scattering and extending to a discussion of the scattering by more complex systems using an optical model.

The chapter on the scattering of nucleons by few-nucleon targets provides a useful, concise review of past work in this area. The authors have also summarized certain aspects of high-energy scattering that have not heretofore appeared in book form. There is a very nice discussion (in one of the two appendices) of the way in which the scattering phase shift at zero energy measures the number of bound states in a potential.

It is not clear to me for what audience the authors intended their book. The 164 pages devoted to experimental technique, containing such information as the temperature dependence of the densities of Octoil S and Apiezon B (important as these may be), are not very conducive to keeping the reader's attention focused on the strength and range of the nuclear forces mentioned in the authors' opening remarks. Similar consideration is not given in the book to the problem of extracting reliable numbers from a high-speed digital computer! The treatment of complex systems is rather cursory. Although a great deal of discussion is devoted to stripping reactions, the fission reaction is not listed in the index. Almost no comment is made concerning recent data on either the average or the statistical properties of nuclear scattering widths and spacings. Heavy-ion scattering is also ignored.

Technically, the book is very good. Aside from a few misprints, it is easy to read, and the figures are clear. There are a few stylistic novelties, such as the use of *unreal axis* in place of *imaginary axis* and a carefully alphabetized reference to "Various authors." Because of the considerable amount of research work surveyed by this book, it will be a valuable addition to the research library of any institution engaged in nuclear physics. Considering the cost per page, probably most physicists will watch for it there.

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Nuclear Engineering Handbook. Harold Etherington, Ed. McGraw-Hill, New York, 1958. xv + 1857 pp. Illus. $25.

The growth in the number of university courses in nuclear engineering, the publication of textbooks on the subject, and hints of realistic cost estimates for nuclear power indicate that the field of nuclear engineering is approaching adolescence, if not maturity. The appearance of the *Nuclear Engineering Handbook* is another such sign—and a welcome one. This book provides some 1800 pages of useful, well-organized, and authoritative information, and is an excellent one-volume reference for the entire field.

There are 14 sections: "Mathematical data and general tables" (156 pages); "Nuclear data" (36 pages); "Mathematics" (148 pages); "Nuclear physics" (103 pages); "Experimental techniques" (145 pages); "Reactor physics" (121 pages); "Radiation and radiological protection" (142 pages); "Control of reactors" (88 pages); "Fluid and heat flow" (116 pages); "Reactor materials" (192 pages); "Chemistry and chemical engineering" (149 pages); "Nuclear-powerplant selection" (155 pages); "Mechanical design and operation of reactors" (155 pages); and "Isotopes" (58 pages).

It is, of course, impossible to discuss a handbook of this nature in detail in a brief review. The treatment is as up-to-date as the problems of compiling and publishing a handbook permit. The mistakes I have found during a quick survey of the book are such as could easily be corrected in a second edition. The coverage of the material is thorough. I have only one serious reservation with regard to content. There are many data not included in this volume; some can be found, in *Reactor Physics Constants* (ANL-5800), prepared at the Argonne National Laboratory and available at $7 or so per copy from the U.S. Government Printing Office, Washington, D.C. Examples of such data are constants for multigroup calculations; tables of reactivity versus reactor period; more calculation methods; and so on. I would like to see this additional information in future editions of the *Nuclear Engineering Handbook,* so that the cost of keeping up with advances in the field may be kept from multiplying too much.

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Modern Materials. Advances in development and applications. vol. 1. Henry H. Hausner, Ed. Academic Press, New York, 1958. xi + 402 pp. $12.50.

This volume is the first of a new series on modern materials. It has been prepared especially for the engineer with broad interests and for the specialist who wants information on materials other than those in his own field of specialization. In these days of rapid development of new materials the engineer has had to become more materials-minded and must therefore acquaint himself with the properties and commercial applications of the many new materials that come on the market.

The editor has assembled the following eight chapters: "Some new developments in wood as a material," by Carl de Zeeuw (59 pages and 11 references);