

age samples of their races, as Porteus insists? I doubt it. The *average* Japanese or Chinese laborer does not leave his home and travel thousands of miles across the water. An unusual degree of determination, energy, curiosity, and the spirit of adventure, as well as a fairly high degree of physical strength and courage, are required to pry a man loose from his home, his family, his language, and his ancestors. Among the Chinese we seem to have independent evidence that this is the case. In "The Character of Races" I have shown that the Hakkas are a very competent and highly selected group of Chinese. Now Hakkas are proportionally far more numerous in Hawaii than in China. They are relatively still more numerous among the school children. In the only graduating class at the University of Hawaii, as to which I have information, four of the five Chinese were Hakkas. Such facts suggest that the Japanese, Chinese, Filipinos, Porto Ricans, and others may not be fair representatives of their respective races. But this does not alter the fact that Porteus has developed an extremely well rounded and rational method of finding out to what degree and in what way one race differs from another in inheritance as well as in training.

Classical Education

ROMAN EDUCATION FROM CICERO TO QUINTILIAN. By AUBREY GWYNN. New York: Oxford University Press. 1926.

Reviewed by FRANCIS G. ALLINSON
Brown University

THIS book is an outgrowth of an earlier thesis, "Roman Education under the Empire" for which the writer received a degree at Oxford in 1919. It is a scholarly but stimulating presentation of the underlying principles of Greek and Roman education—the "austere home-bred morality" and traditions of Roman character upon which, without obliterating the Roman type, was superimposed the wider intellectual and ethical originality of the Greek. The ultimate outcome of the hybrid Græco-Roman civilization, however, was of necessity a somewhat hyphenated culture, and the author, in his conclusion, points out how the civilization inherited from Hellas had "worn thin" in the course of centuries. "Cicero, Seneca, Quintilian, Fronto, Ausonius; these are names which suggest the successive stages of a gradual decline."

Already Seneca, in his time, could criticize the Greek schools of rhetoric as educating "for the class-room not for life." Mr. Gwynn illustrates neatly by the similar decay of athletics. "The curse of professionalism," as he says, "had long since come upon Greek athletics." He might have illustrated further the contrast between the "grand" atmosphere of Hippocrates and this hybrid age when, in the second century, Galen, the great psychiatrist, could demean himself to be the physical director of the imperial gladiator, Commodus.

Mr. Gwynn develops his subject with Cicero, Seneca, and Quintilian as main centres. He knows his men, their background and their foreground. He is properly critical but has the indispensable sympathy which will not suffer the great qualities of great men to be obscured by their foibles. He can even appraise justly the long-winded Isocrates.

He launches his first chapter, "Early Roman Traditions," with a citation from Cicero's "De Republica" to emphasize that most Roman institution the *patria potestas*, an underlying mortgage, so to say, on the education of the Roman boy. In this passage Cicero refers to "my guest, Polybius," and Mr. Gwynn avails himself happily of the divergence in opinion between Cicero, "the most competent Roman interpreter of Greek civilization," and Polybius, "the most competent Greek critic of Roman history," who maintains that the "neglect of public education" was the chief defect in Roman institutions. Aghast as we are today, at the disastrous decay, in our own public schools, of all *potestas*, whether paternal or maternal, we are fain to admire with Cicero this powerful, if antiquated, factor in the transmission of character.

In some of the succeeding chapters, for example, the "De Oratore," and "The New Rhetoric," and in the long chapter on "Quintilian," Mr. Gwynn is necessarily occupied so largely with oratory and rhetoric that the superficial tinkers with our contemporary curricula might find little pabulum in this treatise and might easily overlook principles of universal import which could serve as correctives to

the current "quick-lunch" attitude of our "educators."

The Ciceronian *humanitas*, fostered by a curriculum based on "literature, rhetoric, history, law, philosophy," seems like "too narrow an undertaking" to liberally minded scholars today who now include, as a matter of course, *pure* science among the "humanities." In general, it may be noted, mathematics—like "poet" a word significant in its derivation—played a far greater rôle in Greek culture than in the practical Roman education. Cicero himself, however, speaks of the *artes* taught in the schools of his day as: "philosophy, mathematics, music, literature, and rhetoric," to which he adds elsewhere in the "De Oratore" "geometry and astronomy," thus completing the seven *artes liberales* of the Middle Ages.

Mr. Gwynn emphasizes duly one difference, vital to our modern attitude, between the aims of Greek and of Roman Education in the matter of scientific inquiry. The Roman writer gave his public only a "popular account of Greek scientific theories and discoveries; the Roman Empire never produced a discovery that has been of permanent use to mankind."

Quintilian, his *terminus ad quem*, is the subject of some sixty pages of critical but sympathetic discussion. His work, we are told, is "a culmination and had no successor." We could wish, however, that Mr. Gwynn, who has made so careful a study down to this date of Greek and Roman rhetoric and other educational factors, might pursue the subject on into the *milieu* of Lucian and Galen.

A citation from Quintilian is characteristic of his whole thesis: "The Greeks may excel in precept, but the Romans excel in what is greater, example." Incidentally, we may add, Mr. Gwynn's book throughout makes clear the impossibility of any divorce between Greek and Latin for the student who would appraise at first hand the complex of the mighty Roman Empire.

The English style of Mr. Gwynn's prose is good, the proof-reading excellent. There is one oversight on page 113, an acute for a grave accent!

Pepys and His Time

PRIVATE CORRESPONDENCE AND MISCELLANEOUS PAPERS OF SAMUEL PEPYS, 1679-1703, in the possession of J. Pepys Cockerell. Edited by J. R. TANNER. New York: Harcourt, Brace & Co. 1926. \$12.50.

Reviewed by WILBUR C. ABBOTT
Harvard University

THIS book," the purveyors of fiction are apt to say of their latest candidate for popular favor, "is the greatest work of this gifted author since his last great story." It is often somewhat doubtful praise, and one hesitates to use this formula in introducing what is not only Mr. Tanner's greatest contribution to Pepysian literature since his edition of the Pepys naval papers, his journal of the Admiralty, and his Life of Pepys, but is the greatest contribution to our knowledge of the diarist since Mr. Wheatley's edition—and there could hardly be higher praise. No one, not even Braybrooke or Wheatley, has made greater contribution to Pepysiana than Mr. Tanner, and no lover of the diarist, or student of the seventeenth century, but must acknowledge his great debt to the editor of the present volumes. With them and with the previous contributions which Mr. Tanner has made, he has provided a body of material illuminating the life and works of the Secretary of the Admiralty which may well be set beside the Diary itself, and may serve as a salutary corrective to much loose talk and writing which has flooded the world since the Diary first appeared, to the detriment of the talents and character of the diarist.

The papers which are here printed consist of some 530 documents, chiefly letters from or to Pepys. Of these some have seen the light of print before, a few in Smith, others in the *Academy*, and half a hundred or so in Braybrooke. Yet this fact, in a sense, scarcely lessens the value of the present edition, for, apart from the "bowdlerizing" of the letters printed by Braybrooke, a collection such as this is one of those instances in the world of a thing which is greater than the sum of its parts. It affords a view of the whole which is invaluable in estimating the character of a man and his period. Of this nothing is more striking than the mere list of correspondents. It includes some of the most interesting men in late seventeenth century England—

Sir Godfrey Kneller, John Evelyn, the Duke of York, Sir Isaac Newton, Lord Reay, among them.

Nor are the subjects less entertaining. A correspondence with Sir Isaac Newton on the odds or chances in a game of dice is to be compared with one with Lord Reay on the question of second sight among the Highlanders, and these with Dr. Wallis's contribution on Dr. Gregory's observations of the late eclipse. Nor are the letters the only matters of interest. It so happened that Pepys's nephew and heir, John Jackson, in these years made the grand tour of the continent and in a long series of communications he presents the view of a young man of means, if not of the most acute intelligence, of a thoroughly planned and conscientiously performed journey, probably unparalleled in literature. Besides these still may be found here notes of the English naval strength against Spain in 1588, papers by the astronomer Halley, the document establishing the Boyle lectures, John Locke's system of making a "common-place book," and a great amount of material relating to the political events in these eventful years. Moreover we find here Pepys's favorable report on Mr. Wanley's "proposition of a general survey to be taken of all the present public libraries of Europe," and Dr. Gregory's new method of teaching mathematics which was, in effect, carried out later, and did much to revolutionize education in that field. Finally, not to make this list too long, there is a remarkable "Account of His Majesty King James II's going from Whitehall" on that historic 18th of December, 1688, followed by the warrant for the arrest of "Sir Anthony Deane, Samuel Pepys, and—Hewer . . . who are suspected of dangerous and treasonable practices against His Majesty's Government," dated June 18, 1689.

In short, rich as this collection is in material relating to and illuminating the character and career of Samuel Pepys, it is apparent from the briefest recital of some of its contents that it is even more than this. It is, in no small measure, as valuable for its period in the same sense and in no inconsiderable degree as the Diary is for an earlier day. It is a perfect mine not only of fact but of entertainment. It is not merely invaluable for any student or lover of Pepys. It is equally important for any one interested for whatever reason in the late seventeenth century, as well as for that far larger body who are interested in that peculiar and multifarious set of concerns which we call "life." To all such it may be commended, not only for the information it contains but for that "human interest" which, above even his other qualities of head and heart, makes Samuel Pepys still interesting to so many men of so many different minds. For that we all owe a debt of gratitude to Mr. Tanner, and await with the greater interest that Life of Samuel Pepys which it may be hoped he will presently offer us.

Americana

(Continued from page 913)

confused when they faced the complexity of civilization, were nevertheless so very important in the kind of history making that counts. Perhaps vanity and an acuter sense of our history as a great common people are partly responsible for the vogue of Americana.

Nevertheless, the prime cause of these many books in which the American past becomes vivid and often romantic is that nineteenth century America is gone, is dead except in its influences, is historically remote, and widely different from our present. We read of the New England 'forties or of the South in Reconstruction or of Henry Ward Beecher or Grover Cleveland as we read in Plutarch, Clarendon, or Macaulay.

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HENRY SEIDEL CANBY Editor
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The Child's Mental Status

THE MENTAL GROWTH OF THE PRE-SCHOOL CHILD. A Psychological Outline of Normal Development from Birth to the Sixth Year, Including a System of Developmental Diagnosis. By ARNOLD GESELL. New York: The Macmillan Company. 1925. \$3.50.

Reviewed by ROBERT MORRIS OGDEN
Cornell University

MENTAL tests are now to be administered to infants; and Professor Gesell, the pioneer in this enterprise, describes his procedure and results with sufficient detail so that others may follow him and refine upon his methods.

The desirability of extending mental measurements to infancy is obvious. For if the mind of a six-year-old child can be measured with sufficient accuracy to warrant a classification which holds approximately true throughout his subsequent life, a trustworthy diagnosis made at an earlier time would enable us to lay out a complete program of education suitable to each child's mental equipment. Or, to look at it from another point of view, if one were about to adopt a pretty infant of nine months one might like to know the prospect for the child's developing into a superior, a normal, or a feeble-minded adult. Professor Gesell's photographs of defective, sub-normal, and normal infants at nine months demonstrate the difficulty of judging from the appearance of the child, whereas his comparative tests indicate significant differences in their behavior.

Since the infants Professor Gesell has been testing must be allowed to grow up before we can tell just how trustworthy his classification may be, we can judge the value of his method only by the detailed comparison he gives of the behavior of different children at the same and at different age-levels. Basing these age-levels upon the general facts of bodily growth—which at first is very rapid and then gradually slows down—he arrives at norms of behavior for 4, 6, 9, 12, and 18 months, followed by 2, 3, 4, and 5 years, after which the usual yearly stages of the Binet Scale are applicable. The tests he employs fall into four divisions: motor, language, adaptive behavior, and personal and social behavior; of which the last-named group consists largely of estimates from general impressions and parental reports.



Professor Gesell has made an interesting study, and the wealth of detail in the behavior of infancy by means of which he establishes his normative age-levels affords a fairly convincing clinical picture of a child's mental status. What one misses in this investigation, and what one misses in all similar psychometrical studies, is a set of well-defined psychological principles of interpretation. Indeed, the work is so empirical in character that one is tempted to question the accuracy of the author's subtitle: "A psychological outline of normal development from birth to the sixth year." For instance, with a twelve-months-old child, he uses a simplified form-board with circular, triangular, and square openings. The child is first given a round block to see if he will place it in the circular hole. Professor Gesell observes:

The results indicate that the circle is unquestionably the easiest of these three forms. The selective interest in the circle combined with the priority of the ability to use it adaptively is a pretty example of the specificity and orderliness of development. (Does the child ever first acquire equal skill with the triangle?)

Empirically speaking, the question in parenthesis is a fair one; but it happens that we also know something psychologically of these three forms. Under conditions of brief exposure adults perceive circles more easily than squares, and squares more easily than triangles. A psychological interpretation of this "specificity and orderliness of development" has also been given, which makes it highly improbable that a child could "ever first acquire equal skill with the triangle."

The author appears to be unacquainted with these psychological data and their interpretation. The same limitation appears in his discussion of children's drawings. The ease of drawing vertical as compared with horizontal lines, and the orderly development indicated by copies of circles, squares, triangles, and diamond shapes are carefully recorded, but the only suggested interpretation of these differences are references to "movements which are racially important," and, on the perceptual side, to

"some incompleteness in the oculo-motor mechanism," either peripheral or central.

"The copy of a square," we are told, "is somewhat too difficult for the median four-year-old child. The copy of a triangle is a little more difficult. At the age of five years the median child can copy a square and a triangle, but he shows an inability to copy a diamond, which recalls a similar lack of mastery over oblique strokes which he displayed a year earlier when called upon to differentiate between the cross of St. George and the cross of St. Andrew." These are interesting results the psychology of which, if understood, would not only serve to satisfy our curiosity, but would also raise the character of the tests from the level of empiricism to that of a scientific diagnosis.

But although more is understood of perception and its developmental aspects than the author reveals in his reference to "oculo-motor mechanisms," it must be admitted that we know little enough of these matters, and that in the absence of scientific knowledge we must resort to empirical tests such as Professor Gesell has ingeniously devised and classified. Only, if he wishes us to regard his work as psychological, he ought, at least, to point out the psychological problems which underlie his tests, and the importance of their solution, before we shall be able to accept a purely empirical diagnosis as a scientific classification of the mental status of our infants.

Professor Gesell is not unmindful of the empirical character of his work, but "unless a discovery of fundamental importance is made," he believes that "we must paint these normative portraits in the language of common sense, and in non-technical descriptions of the reactions of children to the ordinary domestic and social situations of life." The reviewer shares this belief; but he also believes that a "discovery of fundamental importance" has been made by the psychologists who are now advancing the hypothesis of the *Gestalt* as a means of interpreting mental life, and in particular that Kurt Koffka's book, "The Growth of the Mind," affords a means of interpretation which carries us a long step beyond the "language of common sense," supplemented by bare references to "movements which are racially important," and "the incompleteness of oculo-motor mechanisms."

A Reconciliation Book

EVOLUTION AND CREATION. By SIR OLIVER LODGE. New York: George H. Doran Co. 1926.

Reviewed by VERNON KELLOGG

SIR OLIVER LODGE doesn't write books limited to description. He writes arguments, pleadings, briefs. He always has a thesis. The thesis of this newest book is—but let us let him say it himself: "My thesis is that there is no essential opposition between Creation and Evolution. One is the method of the other. They are not two processes, they are one—a gradual one which can be partially and reverently followed by the human mind."

And then he proceeds, partially and reverently, to follow brilliantly, and, on the whole, acutely and fairly, this process. A most fascinating and stimulating performance. Chapter IV, Cosmic Evolution, is the most illuminating and stirring sixteen pages of picture of the evolution of the physical universe as a process occurring in time, that I have ever read. This chapter has the cosmic sweep of a comet. It is worth to anybody several times over the cost of the book and the cost of the time necessary to read it.

One expects Sir Oliver to put spiritism, usually too much of it, into any book he writes. There is spiritism in this new one. But very little of it, although that little is absolutely positive and dogmatic. For example:

And what of man? If his death is the end of him, the value of his existence may be doubtful. But if, as I know, death is not the end of him, then there may be infinite progress in store.

Sir Oliver believes wholly in Evolution. He also believes wholly in Creation. How does he make these two beliefs compatible?

Of course, the little but all-important matter of definition plays its rôle here as elsewhere in philosophical discussion. But he does not define Creation too far away from our usual conception of it to make his reconciliation of it and Evolution unconvincing and self-evident. In Evolution the ele-

ments of time and gradualness are characteristic; in Creation there is always a "Let there be." In things of human creation and evolution, for example, every work of art, every engineering structure is first conceived in the mind and then reproduced in matter. But the process is always a gradual one and requires time. The conception is Creation; the gradual process of realization is Evolution.

The steps in divine Creation are less obvious: they require study by those who are competent; but the method so far as we can follow it, seems to have the same characteristics. There is no haste or suddenness of operation, everything is obedient to what may be spoken of as divine law, and gradual evolution is the universal method.

Following the chapter on Cosmic Evolution there is one on Cosmical Speculation, less notable but containing a thought of much significance. (This thought may be an old one and common to many a philosopher. I am so little acquainted with such discussions that I do not know.) The thought is: is Evolution to be looked on as a process once for all in time? Are not things always beginning, always going on, always resulting? Are the operations in time really a sequence, or are they a co-existence? Are we right in thinking, as most of us do, of a time, an epoch, at which the ordinarily known forms of matter did not exist; and again of another epoch when everything will have been finally resolved, by inevitable gradual destruction and scattering of the results of Evolution, into ether and radiation, and all energy dissipated?

Or may we suppose that there is a recuperative process at work, the formation of matter as well as its destruction? Will there always be a transformation of energy, unabated, which will continue the activity even of the physical universe forever? . . . Is the idea of termination tenable in any form? I doubt it.

Sir Oliver is a natural philosopher of the optimistic school. He sees no windup of universe—nor of man. Physical things will be ever transmuting but never ceasing to be in some form or other. Men will die, but their spirit will persist. Sir Oliver looks on the universe and on man and finds them good. "God's in His heaven; all's right with the world."

The Theatre of Today

MODERN THEATRES. By IRVING PICHEL. New York: Harcourt, Brace & Co. 1926. \$2.25.

Reviewed by S. R. MCCANDLESS

IF the modern theatre is "an institution of all the arts," literature, acting, music, painting, sculpture, and architecture, as Moderwell puts it in his "Theatre of Today," then we must test contemporary production by the combined merit of the applicable features of each. Synthesis is a term often spoken of but seldom realized in the theatre, so that it seems a bit extravagant to class it with the other arts. Where does the fault lie and by what means can we bring the theatre to a level with the other arts? We have good plays that can be classed with the best in prose and poetry; we have excellent acting in spots; but there only half the story is told. No play is drama until it is produced, and no production can be classed as a work of art until setting, lighting, costume, and direction are as finished as the acting and the play, granting that they are of a high order to begin with. If you are willing to allow that these elements are essential, from a modern point of view, then it is obvious that the visual side of the theatre is what needs fixing.

Now the theatre, as a building, is nothing more than an elaborate instrument for the production of plays. If any physical limitation in the structure tends to hinder the successful presentation of drama, then the fault lies with those who have charge of building the theatre and laying out the equipment for its operation. No one can say what the ideal is, but we do know that the theatre always has been a place to present the complete idea of the playwright, and, with this firmly in our minds, we can set out to discover what the best practice in theatre building is. Just as one would call in a surgeon, even a specialist, to perform an operation, so should an expert be called upon to design even the simplest type of theatre. In no more obvious way can the reputed waste of the theatre be as legitimately criticized. Every day sees some new and flagrant mistake called a theatre. How can one ever expect a crippled child to grow into a beautiful creature?

"Modern Theatres" sets out to present the best examples in contemporary theatre construction and