

Plants without Soil

SOILLESS GROWTH OF PLANTS. By Carleton Ellis and Miller W. Swaney. New York: Reinhold Publishing Corporation. 1938. \$2.75.

Reviewed by C. C. FURNAS

FOR several years now "Water Culture," "Tray Agriculture," or "Growing Plants without Soil" has been front-page news. It is an idea which experimenters had toyed with for generations, but with no great success until W. F. Gericke of the University of California started extensive experiments nine years ago. A few years back he announced to a few gentlemen of the press that in his water culture experiments he was producing potatoes at the rate of 2400 bushels an acre and tomatoes at over two hundred tons an acre. "Bunk," sniffed many of his orthodox colleagues; but many experimenters refuse to be terrorized by orthodox disapproval, so experimentation on the soilless growth of plants has gone on all over this country, particularly during the past three years. Those who were not burdened with traditions felt that a technological revolution might be here at hand—they wanted to take part.

One of the principal results to date has been the production of a great deal of buncombe, in the public press and by salesmen with marvelous solutions to sell. An honest amateur who wanted to engage in a bit of soilless penthouse agriculture of his own knew not where to turn for authentic information. Now here, just in time for the late summer season, is an excellent summary of everything that is known on the subject, in a very readable nutshell. Plants *can* be grown without soil, make no mistake about it. They will grow rapidly and luxuriantly and in very small space. The authors (Carleton Ellis, an eminent scientist of long standing, and Miller Swaney, a rising young chemist) tell you how they did it and how you can do it. If you are not interested in growing plants, you may very well be interested in how they grow and how this potential technical revolution is progressing. And a course in chemistry, botany, or the hard knocks of gardening is not a prerequisite for the reading. The exposition is written simply, and the pictures tell half the story.

The authors do not delve into any wild predictions of the future of this business, but they do hazard some guesses on the probable commercial aspects in the near future. If their visions are correct, the greenhouse man or nurseryman who does not take up with soilless growth will soon be behind the times—perhaps out of the picture. It is easy for the reader to visualize the extension to market gardening and, if his imagination is really good, to large-scale agriculture. The authors do not commit themselves on this score, but they have gone so far as to experiment with growth for "trans-oceanic gardens." You visualize the first class passengers en route to Europe, strolling about the greenhouse deck and selecting the tomatoes they wish in their salad at dinner. Since the trailer of the automobile tourist always has some un-

occupied space, there seems to be no reason why the family out for the summer should not grow its own vegetables as it travels.

Whether you are interested in plants or only interested in what's going on in the world, you will find this book to be one of the best investments of the year. Then when you get through reading, and if you want some more details on the necessary solutions, the authors "will gladly furnish the information." They say so. Not many authors are like that.

Hardy's Sources

THOMAS HARDY: A STUDY OF HIS WRITINGS AND THEIR BACKGROUND. By William R. Rutland. Oxford: Basil Blackwell. 1938. 21s.

Reviewed by ALEXANDER COWIE

SOURCE-HUNTING books are exasperating because they come so near the mark without hitting it. Here is a book which contains valuable data showing what Hardy read (and may have read) from childhood to old age. It tells us where he read about the idea of the Immanent Will. It provides the most complete analysis yet made of the historical sources for "The Dynasts." It throws new light upon the genesis and evolution of Hardy's first novel. For good measure it also tells about the publication and reception of his other books. For all this the author, William R. Rutland, deserves the thanks of the scholarly world.

Yet Mr. Rutland has not reached the center of his subject. It is questionable whether Hardy's "inner life" can be revealed by a study of "important influences which may have helped to mould his intellect." Intellect? The characteristic thing about Hardy was not his intellect but his emotional quality. He was greatly interested in the concepts of science and philosophy, but he wrote (to use his own term) "emotional history." What went into him as idea came out as mood or image. Here is a process we should like to understand: what internal secretions in Hardy transformed the impartial findings of science into the rebellious blood of the poet? And how could this "pessimist" Hardy yield so much pure comedy? And what was the source of Joseph Poorgrass? We need to know more about the texture, not merely the contents, of Hardy's mind.

Mr. Rutland should help us here, for his subtitle promises a critical estimate; but when he leaves fact for interpretation, he is disappointing. His critical remarks are often fumbling, sometimes inconsistent and prejudiced. He overstates Hardy's pessimism. He writes with a curious hostility toward "Tess of the D'Urbervilles" and "Jude the Obscure," and he gives no adequate reasons for his conclusion that the latter "as a work of art [is] a complete failure . . . indeed, not a work of art at all." It surely serves no critical purpose to say that D. H. Lawrence was not worthy to "lick the boots" of Hardy. The detailed criticism of "The Dynasts" furnishes new points of view but little new revelation. In general, the quality of Mr. Rutland's criticism is such as to send us back, gratefully, to his study of sources.

Romany Romance

THE SPANISH HOUSE. By Lady Eleanor Smith. New York: Doubleday, Doran & Co. 1938. \$2.50.

Reviewed by WILLIAM SLOANE

FIFTEEN minutes outside Brussels lies the Forest of Soignes, stately with ancient beeches, oaks, and chestnuts. On its edge the author has situated her Spanish House, "low and sugar white" and with a roof of red tiles. And there Paris Faa, the gypsy boy who had attached himself to Richard Burke and his wife Simone, first met little Maya Darquet. The two children fall in love during the months they spend together, and the book reaches its climax in a scene in which they slip out of the house at night, meet in the forest, and marry each other according to a Romany ceremony of blood and fire.

From that point on the interest of the tale diminishes. Paris Faa, with his dark hair and skin, his flashing eyes, his skill as a boxer, and his Gypsy pride is more romantic than attractive. Neither he nor Maya, grown up and marked in different ways by the world through which they have passed, is as credible as they were when they were children. The melodramatic ending does not quite come off, just as the second half of the book as a whole fails to live up to the promise of the first. Nevertheless, the author knows how to tell a story.

INTUITION

By K. W. WILD \$3.00

Women, children, animals and geniuses are all commonly credited with "intuition". The word is in everyday use, and is accepted without discussion.

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CAMBRIDGE
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MACMILLAN

Democracy and the Mechanized State

COMMUNISM, FASCISM, OR DEMOCRACY? By Edward Heimann. New York: W. W. Norton & Company. 1938. \$2.50.

Reviewed by ELI GINZBERG

WITHIN the compass of a small volume, Professor Heimann, an economist by profession and a political theorist by confession—a division of labor scarcely justified by criteria of efficiency—has essayed the difficult task of interpreting the rise and evaluating the worth of communism, fascism, and democracy. Though the analysis is labored—a host of Teutonisms has survived the author's readjustment—effort will be rewarded by insights frequently refreshing and occasionally penetrating.

Heimann introduces his subject by pointing out that power machinery, in laying the foundations for large-scale production, insured that individualistic democracy based on private property would be interred with the bones of Adam Smith and Thomas Jefferson.

To realize the promise of eighteenth century democracy under conditions of nineteenth century technology, classical

socialism, the first transformation, emphasized the necessity of altering economic relations. Because of the enforced collectivization of the peasants, justified neither by morals nor machinery, communism, the second transformation, sacrificed the democratic ideal. Despite hosannas to the classless society, "the state of workers and peasants" was transformed into "the first workers' state in history." As early as 1929, Germany had reached a stalemate, for the two great labor parties refused to cooperate and each attempted to outdo the other in vilifying the impoverished middle class. In 1933, those poor in property, but rich in hate, established fascism, the third transformation: in many respects similar to communism, yet more horrible, for it alone revels in anti-humanism. *Deutschland erwache* needs neither love nor wisdom; blood and land suffice.

As the potentialities of modern technology began to unfold, the eclipse of poverty appeared on the horizon. After centuries of untold material suffering, the spectacle could not fail to awe. Small wonder that the searchers after economic security became fanatics. Despite the convulsions of recent years, their labor has not been in vain; economic security for the masses is less distant. The fanatics cheer and redouble their efforts but wise men are chastised, for they know what fools forget, that means can never justify ends since life itself is without end.

Upon the altar of economic security, many Europeans are forced to sacrifice their most valued possessions. Driven by the poison of self-hate and attracted by the luster of the magnet, fanatics call upon those still in possession of valuables to sacrifice so that they may be saved. The punishment of Esau was severe for his was a heinous crime; even animals do not live only to eat.

Eli Ginzberg, author of "The House of Adam Smith," is on the faculty of the School of Business at Columbia University.

Called by the Master

THE YOUNGEST DISCIPLE. By Edward Thompson. New York: E. P. Dutton & Co. 1938. \$2.50.

Reviewed by A. W. SMITH

THE scene of this book—offered as a novel—is India of the time of Buddha; its hero is a young cowherd called by the Master. Six centuries later the methods of Christ were to show marked similarities to the methods of Buddha. In their teachings perhaps the essential difference lies in their attitudes towards life. For one it was a gift; life everlasting the prize. For the other it was pain; the reward perfect extinction.

The book revives memories, or, as Mr. Thompson would put it, "as a breath will rise up softly at evening and from the sephali flowers that have fallen will bring a memory of the sweetness that has swept to its grave on earth, so from the dead years came remembrance." Even for his style Mr. Thompson has drawn heavily on the moral and humorless anecdotes which are in the tradition of every religion. There is the miraculous conversion of the wicked robber chief. The heart of the unjust man is changed by the example of punishment borne with uncomplaining humility. Ascetics sin in the unconvincing fashion of saints. The good-hearted whore is inevitable. She is in the Bible from Rechab to Magdalene; in literature from time immemorial to "The Nutmeg Tree." The appeal of these warm-hearted ladies is sentimental, universal, and ageless.

But any novel, no matter how archaic the period, ought to show some signs of life. A stock-in-trade of Pali names and high-sounding English translations of phrases from the Buddhist canons do not help any more than the inclusion of any number of folk tales. But then,—see above for the Buddhist philosophy of life. As a study of the beginnings of a great religion the book is too slight to bear the burden.

"Honest and convincing—very good!"
—Sat. Review

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DEATH FROM A TOP HAT Clayton Rawson (Putnam: \$2.)	Occultist found slain in pentagon: death deals card-trickster Black Lady. Merlini, ex-magician, helps cops fathom riddle.	Amazingly good dope on magicians and their art, keen foolery, extra tricky plot, and conclusion that lifts the roof.	Dazzling
THERE IS NO RETURN Anita Blackmon (Crime Club: \$2.)	Millionaire, fake spirit-raiser, and others die in gloomy hotel. But big bats and gory cats don't scare Adelaide Adams.	Keeps hair standing so erect most of time that solution seems a trifle flat. Spiritist stuff is excellently handled.	Very good
NIGHT ON THE PATHWAY Charlotte Murray Russell (Crime Club: \$2.)	Two-family hate across gloomy ravine flowers in double killing. Jane Edwards, visiting one household, drives police quietly nuts but triumphs.	Antics of nose female sleuth and bibulous brother in nest of queer characters enliven intricate chronicle of family woes.	Diverting