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MODERN ESSAYS

SECOND SERIES

1941–1943

By the same Author

MEANING AND STYLE

POETRY AND APPRECIATION

A YEAR'S WORK IN PRÉCIS

FROM PARAGRAPH TO ESSAY

MODERN ESSAYS, FIRST SERIES, 1939-1941

MODERN ESSAYS

SECOND SERIES

1941–1943

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PREFACE

THE interest shown in *Modern Essays, 1939–1941* has encouraged me to make a further collection of essays written in the last three years. I ought, perhaps, to say that once again the term "essay" has been allowed a wide interpretation to include many pieces of writing which would not strictly be accepted by the purists as in the traditional form. But the essay has always permitted a considerable freedom of style and method ever since Bacon declared "to write just treatises requireth leisure in the writer and leisure in the reader . . . which is the cause which hath made me choose to write certain brief notes . . . which I have called essays." The first great English essayist wrote from an intimate and extensive knowledge of men and affairs in an age of stirring events. In our changing world, the writers here represented speak with authority on a great variety of topics, and, as they all have something important to say, whether describing the advances and outlook of Science, expressing opinions about democratic art values, or discussing the many moral and political problems which face Great Britain and the world after the war, I hope that what they have written will be read with profit and with pleasure. Only a few of the authors whose work appeared in the first collection are represented here again, which may be taken as some indication of the abundance of good writing at the present time.

A. F. S.

KETTERING, 1944

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THE DUTY OF SOCIETY TO THE ARTIST

A GREAT deal has been said about the duty of the artist to society. It is argued that the poet, the novelist, the painter, the musician, has a duty to the community ; he is a citizen like everyone else ; he must pull his weight, he must not give himself airs, or ask for special terms, he must pay his taxes honourably, and keep the laws which have been made for the general good. That is the argument and it is a reasonable one. But there is another side : what is the duty of society to the artist ? Society certainly has a duty to its members ; it has a duty to the engineer who serves it loyally and competently : it must provide him with the necessary tools and not allow him to starve ; it has a duty to the stockbroker who is a competent dealer in stocks : since he is part of a financial system which it has accepted, it must support him and ensure him his due percentage. This is obvious enough. So what is its duty to the artist ? If he contributes loyally and competently, ought not society to reward him like any other professional man ?

Unfortunately the matter is not so simple. Art is a profession : that is quite true. The novelist or the musician has to learn his job just as the engineer or stockbroker has to learn his, and he too has to make both ends meet and needs to be paid or otherwise supported. But it's such a queer job. I will come back to it in a moment. I want first to consider society, the society we may expect to have after this war. We may expect a society that is highly centralised. It may be organised for peace : we hope it will. It may have to be organised against future wars, and if so, so much the worse. But in either case it will be very tightly knit ;

it will be planned ; and it will be bureaucratic. Bureaucracy, in a technical age like ours, is inevitable. The advance of science means the growth of bureaucracy and the reign of the expert. And as a result, society and the state will be the same thing.

This has never happened in the past. Society used to be much more diffuse. The government was there, making laws and wars, but it could not interfere so much with the individual : it had not the means. When I was a boy there was no wireless, no motor-cars. At an earlier date there were no telegrams, no railways : earlier still, no posts. You cannot interfere with people unless you can communicate with them easily. Society was diffuse, and in the midst of the diffusion the artist flourished. If he was a painter he painted for the king and the courtiers, who probably had some individual ideas about painting, or for the great aristocrats, or for the local squire, or for the church, which was not an individual but which knew what it wanted as regards subject matter. He lived in a society which was broken up into groups and he had the chance of picking the group which suited him. That society, after lasting for thousands of years, has suddenly hardened and become centralised, and in the future the only effective patron will be the state. The state is in a position to commission pictures, statues, symphonies, novels, epics, films, hot jazz—anything. It has the money, and it commands the available talent. It can and it will encourage the efficient engineer or stockbroker or butcher. What encouragement will it give to an artist ?

I am going to imagine an interview between an artist —a painter of genius I will suppose—and the appropriate state official whom I will call, a little unjustly, Mr. Bumble. The artist says, " I want to paint the new police station : can I have the job ? " Mr. Bumble is not interested in painting and he has no reason to suppose that the police care for it either ; still he does his duty,

he looks up his instructions, and sees that though police stations are usually left plain there is no regulation against their being coloured. "Yes, that would certainly be in order," he says. "I'm instructed to encourage art and I could give you the job, and I note you have suitable credentials. What sort of picture do you propose to paint?"

"I shall see when I start," replies the artist airily.

"See when you start? Is not that a little vague? I suppose that anyhow you will paint something which is edifying and inspiring?—a figure of Justice, for instance."

"I can't promise to do that. Indeed I don't feel inclined to edify or inspire. No doubt this state of ours is admirable, no doubt our police are a fine body of men—but no: I don't want to paint anything instructive."

"Well, well," says Mr. Bumble, and thinks how much easier it is to deal with a stockbroker. "Well, you know about art and I don't, but I always assumed that art existed to make men into better citizens."

"It does sometimes do that," replies the artist, "but not always, and I don't feel inclined to paint that type of picture just now. Sorry."

Mr. Bumble, who is a thoroughly decent fellow, is sorry too, and then he has a good idea.

"Still there's light art, isn't there," he says heavily, "art which amuses and entertains. Provided the requirements of propriety are observed, there's no objection whatever to your painting something popular."

"Yes, art does sometimes entertain," replies the artist. "But not always. And I don't feel inclined to paint that type of picture either."

"May I ask what you do want to do?"

"I want to experiment."

"Experiment? The walls of the new police station are no place for experiments."

"I want to experiment. I want to extend human

sensitiveness through paint. That's all that interests me. Perhaps when I've finished, the picture will instruct and inspire people. Perhaps it will amuse them. I don't know and I don't really care. I want to paint something which will be understood when this society of ours is forgotten and the police station a ruin."

" The new police station a ruin when it has just cost thousands of pounds ? How preposterous ! "

" Yes, a ruin in the desert like Palmyra and Angkor or Zimbabwe, a ruin like Borobudor or Ajanta ; which are remembered to-day not for their original purposes but because of the experiments, the discoveries made by artists upon their walls. A ruin like . . ."

But here Mr. Bumble holds up his hand. His patience is exhausted, he really cannot waste more time over this flibberty-gibbet.

" I can do nothing for you," he says. " You don't fit in. And if you won't fit into the state, how can you expect to be employed by the state ? "

The artist retorts, " I know I don't fit in. And it's part of my duty not to fit in. It's part of my duty to humanity. I feel things, I express things, that haven't yet been felt and expressed, and that is my justification. And I ask the state to employ me on trust and pay me without understanding what I am up to."

There my dialogue ends. Mr. Bumble refuses to give the commission, for it is a pretty tall order to be asked to pay for something which you don't understand ; he who pays the piper naturally hopes to call the tune.

I have made that conversation up in order to emphasise the fundamental difficulty which confronts the modern centralised state when it tries to encourage art. The state believes in education. But does art educate ? " Sometimes but not always " is the answer ; an unsatisfactory one. The state believes in recreation. But does art amuse ? " Sometimes but not always " is the answer again. The state does *not* believe in experiments,

in the development of human sensitiveness in directions away from the average citizen. The artist *does*, and consequently he and the state—who will soon be his sole employer—must disagree.

So that is why there is a problem in the case of the artist which does not arise in the case of the butcher or the engineer. He never quite fits in. This did not matter in the loosely organised societies of the past, but it will matter in the future, where the community will be the only employer, and there is a danger and indeed a probability that art will disappear.

Perhaps I shall make this clearer if I quote from another dialogue, written by the philosopher Plato. Plato, all through his life, was interested in the relation between the artist and the state, and was worried because the artist never quite fits in. He had himself the artistic temperament. In one of his earlier dialogues, the *Phaedrus*, he calls poetry " a madness . . . the madness of those who are possessed of the Muses : which enters into a delicate mind, and there inspires frenzy. . . . But he who having no touch of the Muses' madness in his soul, comes to the door and thinks he will get into the temple—he, I say, and his poems are not admitted : the sane man is nowhere at all when he enters into competition with a madman." The sane man, whom Mr. Bumble represents, is certainly not inclined to subsidise madness : the state exists for the sane who have learned to fit in. Plato himself realised this, and in his later life he became enthusiastic about the state, and was obliged to change his attitude towards poetry and art. Personally he loved them as much as ever, but he saw they were disruptive, and he actually ended by banishing poets from the ideal community, on the ground that they upset people and that you never know what they will say next. He came round to Mr. Bumble's view.

Not sharing Plato's totalitarianism, I believe that

Mr. Bumble ought to have given that commission. I see his difficulties. How, in the first place, was he to know that the applicant was not a fraud? (He would have to rely on some advisory body here.) And in the second place even if he felt convinced that the artist was genuine as artists go, how should he feel justified in wasting public money on someone so useless? (The answer here is that he must be educated, educated not so much to appreciate art as to respect it. Our officials, when they take up their posts, ought to be instructed in soothing words that there is something in this queer art business which they cannot understand and must try not to resent.)

By the way, I've assumed above that we shall have a stable future after the war. If the future were chaotic, the artist would become Bohemian, and the whole problem would alter.

E. M. FORSTER, *The Listener* (1942)

A LOST ART

FEW expressions are so likely to strike terror into the hearts of the sensitive as the term "folk-art." Before the mind's eye there immediately passes a motley procession of sandalled and djibbah-clad enthusiasts, carrying a variety of examples of inexpert but enthusiastic handicraft; pottery as thick as armour plate and far more indestructible, hand-woven fabrics of a sickly green adorned with what it has become customary to call, with grave injustice to the agricultural community, "peasant" embroidery, leather-work, poker-work, basket-work, and even such strange exotics as batik-work. Were these laborious artifacts of garden-suburb socialism regarded by their creators merely as the product of private hobbies, on a par with the wax-fruit and Berlin wool-work of an earlier generation, one would have no cause for resent-

ment ; but too often they are presented for our inspection as the first-fruits of a new heaven and a new earth. When at length the evils of the Industrial Revolution are overcome, so runs the argument, and the problem of leisure has been solved, these will be the archetypes of the new culture. All art must spring from the People and this is the sort of art that the People, when properly educated and freed from bourgeois prejudices, will undoubtedly produce. This farrago of nonsense, heard more frequently thirty years ago, perhaps, than it is to-day, would hardly be worth a moment's consideration did it not spring from the realisation of a genuine need. There has not, for the last forty or fifty years, existed any genuine folk-art in this country, and we are infinitely the poorer for its absence.

William Morris, the unwitting progenitor of all this profitless enthusiasm, was a great and good man but he was the child of his age. The eyes of all the most intelligent and cultured of his contemporaries were firmly fixed on the Middle Ages. They visualised an ideal mediaeval craftsman carving the capitals of a cathedral, weaving his own clothes to some simple pattern, sitting on simple chairs of his own contriving, and employing his leisure in simple games and morrises. The keynote of all popular art must therefore be simplicity, and as whatever merits the everyday products of the mid-nineteenth century might possess, simplicity was not among them, folk-art, anyhow in urban areas, no longer existed. But art, whether popular or otherwise, is seldom, as Mr. Wilde remarked of truth, pure and never simple, and Morris's aesthetic astigmatism led him to overlook what was under his nose all the time. For the Victorians did produce a genuine, if limited, folk-art, which, for us who have produced none, may be worth a moment's consideration.

What the tomb was to the ancient Egyptians and their ships were to the Vikings, the public-house was to the

mass of the town-dwelling Victorians. And it is in the few remaining untouched specimens of the pre-1880 pub that we shall find the most valuable evidences of the popular art of our grandparents : the ornate gilt lettering of the signboards and advertisements, the rich scroll-work adorning the inevitable corner lantern, and above all, the motifs of the engraved and frosted glass of the window, all display the principal characteristics of genuine folk-art—a complete absence of self-consciousness and a total lack of originality. Just as the motifs employed by the Balkan peasant to decorate his wooden bowl can be traced back to some Byzantine or Sassanian original, so can we establish the descent of all the elements employed so lavishly in the *Marquess of Granby*. Those ebullient swags and dashing volutes which enliven the façade, the curling foliage and tormented scrolls that surround the medallion portrait of the noble Marquess, are the final flowering of rococo, a mode long since abandoned by the élite but here splendidly employed by the sign-painter and commercial artist with a gusto and vigour that more than compensate for the absence of any background of knowledge. As for the products of the commercial designers, the wrappings of various branded products, etc., the variety and balance of their design should be the envy not only of the modern advertising layout man, but also of a good many of the producers of the Book Beautiful. Particularly noteworthy are the labels on beer-bottles, for here the designer has been forced to work in a convention as strict as any imposed on an artist of the Trecento painting a Madonna, and the ingenuity and good taste displayed within very narrow limits make these happily unchanged designs as satisfying as anything in the whole history of applied art in this country. They are in fact so good that, like the well-dressed man, we have long since ceased to notice them.

More remarkable still was the typographical achieve-

ment of the average journeyman printer. While the standard of the printed book everywhere declined after the middle of the century, the designers of menus, playbills, railway time-tables, etc., not only maintained the best traditions of an earlier day, but displayed the greatest virtuosity in obtaining the maximum effect with a limited number of types. In their hands Bodoni, Egyptian, and Etruscan underwent the strangest but, in most cases, highly successful metamorphoses, and the boldness and originality of their achievements have only occasionally been equalled and never surpassed by the great but always a trifle self-conscious typographers of our own day.

But Art, with a capital A, crept in and vigour and natural good taste were overwhelmed by snobbery. "There is not a public-house between here and the Crystal Palace," wrote Ruskin in a Frankenstein mood in the '70s, "that does not sell its gin-bitters under capitals copied from the Church of the Madonna of the Miracles." The ideas of men like Morris were copied and transformed by commercial designers who were quite incapable of appreciating their significance, and the old robust gilt and mahogany disappeared beneath a flood of "Art" tiles and flowered lincrusta. In our own day the work has been completed by a second generation who have let loose a torrent of "Modernistic" designs even more repellent. To-day genuine examples of the vernacular are still occasionally to be found in a few old-fashioned pubs, in the decorations of swings and roundabouts at country fairs, and very occasionally in small provincial railway stations. The brewers have happily retained their labels, the decorators of cigar-boxes (a most remarkable school of artists who still await their Berenson) worthily uphold the great traditions of the past. But the virtue has gone out of us, and this humble but once widespread culture that produced in another sphere the English music-hall, is as dead as

Marie Lloyd and Little Tich. And no amount of young gentlemen singing "After the Ball was over" in false whiskers in bogus Victorian night-clubs, will ever revive it.

OSBERT LANCASTER, *The Listener* (1942)

THE PLAYER AND HIS ART

THE art I follow is still something of a mystery to me, and therein lies perhaps much of its extraordinary fascination. Why should one, in the performance of a certain rôle, suddenly and involuntarily, without rehearsal, without premeditation, make a movement, utter a sound, or use a modulation, which, though unprepared, yet belongs essentially to the character one is impersonating at that moment? Whence come these involuntary flashes of expression, incidental to the feeling or environment of the moment?

That is the mystery. Garrick knew of them. Said he, "I pronounce that the greatest strokes of genius have been unknown to the actor himself, till circumstances and warmth of the scene have sprung the mine, as much to his own surprise as that of his audience." There he left the subject, content to state the phenomenon, without pursuing any inquiry as to its origin. Talma knew of them, called them "spontaneous flashes of sensibility," "spontaneous workings in his mind," "inspirations," and there he left the question. Irving said that in the exercise of his art an actor called upon a certain "duality of mind," but went no deeper into the question. Writers, too, have referred to this same phenomenon as a power in the hands of which they have performed the work of artistic creation involuntarily, helpless in the grasp of a *force majeure*. Newbolt said he received what he called a *bonus*, something beyond his conscious effort. Shaw says there are moments when he cannot control his pen (for ill and well, we can believe

that !) What is this force ?

I venture to think that some, if not the whole explanation of it may be found in the conclusions of psychic research. As in hypnotic suggestion the subconsciousness appears to be ready at the call of a powerful will to answer in character with an individual habit of mind and experience of which, in its normal moments, it knows or remembers nothing, so in the interpretations of the actor, the " conceit " he has forced his own soul to may strike flashes of truth from a lower consciousness, of which the interpreter is himself, at the moment at least, ignorant.

Man is allowed to be microcosmic physically ; is it too much to assume that he is so mentally ? The experiments of Colonel de Rochas, as referred to by M. Maeterlinck in his work *Our Eternity*, proves that we are ourselves composed of innumerable ancestors. Are these " flashes of truth," these " inspirations," we are considering anything else but involuntary expressions of inherited dormant personalities, or as Ingres calls them, " submerged tracts of our personality which are fetched up by the powerful self-suggestion of an artist, in the ecstatic moment of creation, out of the slumbering generations which have gone to the making of his concrete ego ? " I know of no other way of accounting for inspiration—that rare but undeniable expression of something beyond our control. And lest the theory I venture to suggest should seem fantastic, I would remind you that Samuel Butler held similar views as to the operation of buried identities, and though these opinions were scoffed at during his life, there is now a more general acceptance of the theory of the influence of former identities existing in the ego.

I must confine myself, however, to less speculative lines of thought. Let us consider the methods of various actors at their work.

Here we have Talma in his discourse upon *The Actor's*

Art. He says : " By repeated exercises he enters deeply into the emotions, and his speech acquires an accent proper to the personage he has to represent. This done, he goes to the theatre not only to give theatrical effect to his studies, but also to yield himself to the ' spontaneous flashes of sensibility ' and all the emotions which it involuntarily produces in him. What does he then do ? In order that his inspirations may not be lost, his memory, in the silence of repose, recalls the accent of his voice, the expression of his features, his action—in a word, the spontaneous workings in his mind, which he had suffered to have free course, and in fact everything which, in the moments of his exaltation, contributed to the effect he had produced. His intelligence then passes all these means in review, connecting them, and fixing them in his memory, to re-employ them at pleasure in succeeding representations. These impressions are often so evanescent, that, on retiring behind the scenes, he must repeat to himself what he had been playing, rather than what he had to play." I was tempted to challenge the great French actor's statement here, for in my experience the actor does not usually recall the effect his emotions produce in him, but rather that he notes those effects at the moment of their expression. I find, however, that in another part of his essay he says that he at times found himself " making a rapid and fugitive observation on the alteration of his voice, and on a certain spasmodic vibration it contracted in tears "—during his performance he obviously means.

Surely this is a curious thing. That a man will mature his interpretations through an observation of what his own subconsciousness dictates ! And what complete command over the sensibilities of his audience does such a method presuppose. What consummate works of art must have been such performances when repeated, say, for the hundredth time. Remember that during these hundred performances his original conception had been

deepening, the expression of it maturing, becoming more elaborate, more perfect, and then (in parenthesis) let us reflect upon the adequacy of criticising a first night's performance, and the popular opinion that the frequent repetition of a certain rôle renders its expression mechanical and flat! An interpretation does not become a mature expression till it has been repeated many, many times. For an interpretation, like every other created thing, has its birth, its adolescence, its maturity, and—in obedience to the law of Nature—alas! its decay.

We must assume, of course, that (as in Talma's case) the artist's critical faculty always travels side by side with his creative faculty; for without such proportionate growth of the critical sense, no artist can develop. Without such growth the point would soon be reached, when, in saying of his work "that is well enough," stagnation only has been achieved. Whereas, in the despair with which we fail to realise our conception, lies the consolation that the ideal, if unattainable, is still before us. A great poet once confessed to me that if he ever realised his limitations, there would be nothing before him but suicide. That was the greatly gifted and deeply mourned John Davidson.

Therefore, these two faculties, creative and critical, or, as they are called in Talma's essay, "sensibility" and "intelligence," must always remain evenly balanced. "Evenly balanced!" Ah! there's the rub. For in that "creative faculty," as well as joy, lies peril. You may create a being, but you cannot always govern his actions. If you can give him a vertebral column he will walk; if you can give him the breath of life he will sometimes defy his creator. Beware, with Frankenstein, of that monster, your own creature! He has a will of his own; he is detached from his creator, and will act and think for himself. I will go so far as to say that the detachment may be so complete that the creator of a character on the stage may watch his off-spring with

all his critical sense and will still be sometimes bewildered by what he does. I recall the experience of an actor which illustrates this independence of mind on the part of a character represented. There was a moment when my friend, impersonating one of life's failures, was brought face to face with his successful rival in an affair of love. Now " the failure " (as we will call him) at a certain point looked long and hard at his rival and said nothing. The pause was involuntary, and his silence puzzling to his creator ; he was at a loss to imagine what his creature was thinking about, and it was not until this strange pause had occurred in many succeeding representations, that it suddenly dawned upon the actor who was interpreting him, that this creature was realising in that long and searching gaze all his own shortcomings in the vivid light which was at that moment thrown upon them by the proximity of his successful rival.

There was an instance where a " spontaneous flash of sensibility " could be safely used at succeeding interpretations. The actor's creature was right—he generally is—but not always.

One must learn to keep a wary eye on these re-created beings. There are some of so turbulent and so headstrong a nature that they will lead their interpreters into all manner of exaggerations. I had a curious experience of this in performing the part of Lieutenant Reresby in *The Breed of the Treshams*. At first he was little more than the sort of romantic abstraction one meets with in a score of " cloak and sword " dramas. But, after a time, he began to express himself as a more strongly marked identity. Raffish habits acquired in the armies in which he had served, the mien of a seventeenth-century " tough," the obliquity of mind which so often develops in the soldier of fortune, gradually appeared in the representation, till the authors of the play and I myself were shocked. Here was a real live man, expressing nothing that was inconsistent with the author's

words, yet a creature much more vital. The authors were so horrified by what they considered a prostitution of their hero that they threatened to cancel my right to the performance of the play. In deference to their demand that I should moderate these violent traits in his character I tried to do so, but it was too late! The authors had builded better than they knew. Reresby was a living identity and defied me! And it was with very partial success that I tried to follow Talma's advice to select in the "quiet of repose only such flashes of sensibility as should ennoble and dignify my creation," for there was little of the "noble" or the "dignified" in that rapscallion.

I cannot help thinking that the blood of many a wild and adventurous Essex privateer and old letters of marque men on one side, and the oblique morals of remote Welsh forebears on the other, combined to express themselves in that violent Galliard.

To return now to Talma's essay. You will notice that he comes to the theatre (and he means, of course, that he comes there when the audience is assembled to witness his work) not only to give theatrical effect to his studies but also to yield himself to his "spontaneous flashes of sensibility," and here arises another important reservation. Upon the quality of the audience, upon the degree of sensibility or sympathy possessed by this body of people, depends the extent to which these "flashes of sensibility" can be emitted. One might say, I think, that if a people gets the king it deserves, the government it deserves, so will an audience get the acting it deserves. Whether an actor can give the highest and best that is in him depends largely, if not wholly, upon his audience. It is only when the souls of audience and actor are, as it were, fused together, that the "spontaneous flashes of sensibility" can appear. You remember Coleridge's description of the elder Kean's acting in *Richard III*? That it was "like reading Shakespeare by flashes of

lightning." Such a result can only be attained when the audience is willing and prepared to be impressed. When they come, in other words, as ready to give as to receive. Let the audience bring its sympathetic attention to the theatre, and, if possible, without its intelligence being obfuscated by the process of digesting too heavy a dinner! And then let it resign itself to the emotions brought forth by the play, then, and then only, can the actor gain that ascendancy over the minds of the spectators which will result in those moments of sublime emotion which remain engraved upon our memories for a lifetime. In such a moment audience and actor are fused in one. In such a moment one emotion possesses every soul in the building. The intelligence of every being is held in suspense, with one exception—that of the actor who has called the emotion forth. No matter how deeply moved he himself may be at that moment, his intelligence, his critical faculty, must be doubly alive. Real tears may be coursing down his cheeks, a real terror may be congealing his blood, but his critical intelligence is alert; he must calculate to the shadow of a shade of time how long that moment will last, for no one knows so well as he what peril lies in the very tensity of that instant. A programme flutters from the gallery, a door bangs, a passing motor hoots, a thoughtless smoker strikes a match which illuminates the whole dark interior of the auditorium, and the exquisite poise is lost!

This unity of soul existing between audience and actor is one of the most precious consolations of our work. Who of us but treasures in his remembrance the ineradicable impressions of such moments? One arises in my mind. It is when my beloved master, Sir Henry Irving, played "Charles the First." The last act is reached, and nothing remains to that sweet, misguided Stuart but to part from his Queen and children, and go forth to the scaffold. Cromwell's offers of compromise have

been rejected by the King, and the usurper, apostrophising his monarch as " Thou shadow of a King," leaves the stage, consigning his master to his fate. Another scene, and the " shadow of a King " enters and we see indeed the shadow of Charles. The sweet dignity, the patient resignation, the quiet but unquenchable belief in the holiness of his anointment, shine about him like a dim aureole, as about a being of another world. Faded, colourless, unreal, how is it that, as he closes the door behind him unattended, unannounced, how is it that this wraith of kingship breathes such new humility about him? How is it that he seems already to wear that " incorruptible crown," in which not all his misfortunes and common human mistakes could dim his belief? I wonder if the author who wrote in his manuscript " Enter Charles " conceived such a spectacle of purged suffering as Sir Henry Irving presented at that moment? Or was it created by the deep sympathy of the actor for human error, evolved perhaps from the remembrance of some moment of personal emotion when, like Charles, he had bit the dust of disaster and touched the depths of worldly ruin? We cannot say, but the experience of theatre management, with its alternations of triumph and disaster, might well have given Irving the inspiration for that moment, which the marvellous command of his art he possessed would illustrate. The change in his costume from the lustrous velvet of former days to the colourless linsey he now wore, the old elegance of his bright Cavalier locks now thinned and greying, hanging in a strange tail over his meagre lace collar, conveying such a poignant note of neglect, and the air of humble but dignified acquiescence in departed attendance, as he opened and closed the door while turning his back to the audience. It was an imperishable moment, illuminating the power of creative imagination aided by a faultless technique.

This is not an instance of occasional inspiration flash-

ing from unsuspected heredity "in the warmth of the scene" as Garrick expresses it, but the use Irving could make of a personal sorrow—a valuable and poignant fountain of inspiration, and one which my friend Cyril Maude has confessed to having used on occasion.

Another remembrance of Irving arises in my mind—Becket. Becket is aware that he is doomed, that the King's "men" are almost upon him; that in the struggle for his order he has been defeated, the work of his life a failure, and his mind wanders back, in the few moments of mortal existence left him, to his mother's house, to a little Norman maid who died of leprosy, to a half-remembered picture of mother-love exemplified by a water-fowl sitting on her stone-cold eggs, and there arises before his eyes a vision of possible companionship of which the death of the little Norman maid perhaps deprived him; and of which, at the moment of solitude preceding his martyrdom, he stands so greatly in need; a vision of the faith which kept the mother-hen true to her instinct, in spite of the impossible.

These effects are not accidental; they are conjured up in our imagination by the power of the actor, who, amid a sympathetic audience, can project his own mental vision upon our own.

Let me refer to a few more treasured remembrances of my master, treasured the more deeply now because the time has come, alas! when these are remembrances only. And perhaps I may venture to say that no one can have appreciated the delicacies, the subtleties of his art so keenly as those who had the privilege of acting with him. I have seen, in the death throes of the old tyrant Louis XI, his eyes positively glaze as the *rigor mortis* froze into immobility the hands which he stretched forth to clutch his crown for the last time. When, as Leseurques in *The Lyons Mail*, he is under examination for a crime of which he is innocent, I have seen upon him the mantling cheek, the smarting eyes, and the

sickly smile of the obviously guilty ; superb touches, for as an eminent judge has pointed out, the really innocent usually appear the most guilty.

Who does not call to mind the curious sense of tragic loneliness which enveloped his " Hamlet," and the under-current of fatal hesitancy in his " Charles the First " during the famous interview with Cromwell, when one was so painfully conscious that the artistic, pleasure-loving Stuart was confronting his doom ? And so might instances be multiplied for the hallowed remembrance of us all. And I make no apologies for my frequent references to the great work of Sir Henry Irving, knowing that they are made before sympathetic listeners. Speaking personally, I can say what Thomas Davies, one of the actors under Garrick, said of his master : " I never can speak of him but with idolatry, and have ever looked upon it as one of the greatest blessings of my life that I have lived in the days of Irving."

These few instances I have recalled are the " touches of nature " which, indeed, " make the whole world kin." These are messages from his own soul, which a great artist sends forth to others for the beautifying of this work-a-day world.

SIR JOHN MARTIN-HARVEY
Essays by Divers Hands (1943)

DEMOCRATIC VALUES ARE NEW VALUES

I WRITE, not as a philistine, but as a man who could not only claim to be cultured in the accepted sense of the word, but who has actually devoted most of his life to cultural things—to the practice of the arts of the present and the elucidation of the arts of the past. My philosophy is a direct product of my aesthetic experience, and I believe that life without art would be a graceless

and brutish existence. I could not live without the spiritual values of art. I know that some people are insensitive to these values, but before allowing myself to pity or despise such people, I try to imagine how they got themselves into such a poor state of mind. The more I consider such people, the more clearly I begin to perceive that though there may be a minority who have been hopelessly brutalised by their environment and upbringing, the great majority are not insensitive, but indifferent. They have sensibility, but the thing we call culture does not stir them. Architecture and sculpture, painting and poetry, are not the immediate concerns of their lives. They are therefore not sensibly moved by the baroque rhetoric of St. Paul's, or the painted ceiling of the Sistine Chapel, or any of the minor monuments of our culture. If they go into a museum or art gallery, they move about with dead eyes : they have strayed among people who do not speak their language, with whom they cannot by any means communicate.

Now the common assumption is that this strayed riveter, as we may call him, should set about it and learn the language of this strange country—that he should attend museum lectures and adult education classes in the little spare time he has, and so gradually lift himself on to the cultured level. Our whole educational system is built on that assumption, and very few democrats would be found to question it. And yet a moment's consideration should convince us that an educational system which is built on such an assumption is fundamentally wrong, and fundamentally undemocratic. Our riveter has probably strayed from a cheerless street in Birmingham, where he inhabits a mean little house furnished with such shoddy comforts as he has been able to afford out of his inadequate wage. I need not pursue the man's life in all its dreary detail : there he stands, typical of millions of workers in this country, his clumsy boots on the parquet floor, and you are asking him to

appreciate a painting by Botticelli or a bust by Bernini, a Spanish textile or a fine piece of Limoges enamel. If drink is the shortest road out of Manchester, there is a possibility that art may be the shortest road out of Birmingham ; but it will not be a crowded road, and only a very odd and eccentric worker will be found to respond to the aesthetic thrills that run down a cultured spine.

There are cultured people who, realising this fact, are honest enough to abandon their democratic pretensions ; they put up an impenetrable barrier between the people and art, between the worker and " culture." It is much better, they say, " that civilisation should be retained in the hands of those persons to whom it professionally belongs. Until they are educated, and unless they are, it will be one worker in a million who wants to read a modern poem."

Such people are right, and such people are wrong. They are right to assume that an impenetrable barrier exists between *their* culture and the worker : they are wrong to imagine that the worker has no cultural sensibility. The worker has as much latent sensibility as any human being, but that sensibility can only be awakened when meaning is restored to his daily work, and he is allowed to create his own culture.

Do not let us be deceived by the argument that culture is the same for all time—that art is a unity and beauty an absolute value. If you are going to talk about abstract conceptions like beauty, then we can freely grant that they are absolute and eternal. But abstract conceptions are not works of art. Works of art are things of use—houses and their furniture, for example ; and if, like sculpture and poetry, they are not things of immediate use, then they should be things consonant with the things we use—that is to say, part of our daily life, turned to our daily habits, accessible to our daily needs. It is not until art expresses the immediate hopes

and aspirations of humanity that it acquires its social relevance.

A culture begins with simple things—with the way the potter moulds the clay on his wheel, the way a weaver threads his yarns, the way the builder builds his house. Greek culture did not begin with the Parthenon : it began with a whitewashed hut on a hillside. Culture has always developed as an infinitely slow but sure refinement and elaboration of simple things—refinement and elaboration of speech, refinement and elaboration of shapes, refinement and elaboration of proportions, with the original purity persisting right through. A democratic culture will begin in a *similar* way. We shall not revert to the peasant's hut or the potter's wheel. We shall begin with the elements of modern industry—electric power, metal alloys, cement, the tractor, and the aeroplane. We shall consider these things as the raw materials of a civilisation and we shall work out their appropriate use and appropriate forms, without reference to the lath and plaster of the past.

To-day we are bound hand and foot to the past. Because property is a sacred thing and land values a source of untold wealth, our houses must be crowded together and our streets must follow their ancient illogical meanderings. Because houses must be built at the lowest possible cost to allow the highest possible profit, they are denied the art and science of the architect. Because everything we buy for use must be sold for profit, and because there must always be this profitable margin between cost and price, our pots and pans, our furniture and our clothes, have the same shoddy consistency, the same competitive cheapness. You know what a veneer is : a paper-thin layer of rosewood or walnut glued to a framework of pine or deal. The whole of our capitalist culture is one immense veneer : a surface refinement hiding the cheapness and shoddiness at the heart of things.

To hell with such a culture! To the rubbish-heap and furnace with it all! Let us celebrate the democratic revolution with the biggest holocaust in the history of the world. When Hitler has finished bombing our cities, let the demolition squads complete the good work. Then let us go out into the wide open spaces and build anew.

Let us build cities that are not too big, but spacious, with traffic flowing freely through their leafy avenues, with children playing safely in their green and flowery parks, with people living happily in bright efficient houses. Let us place our factories and workshops where natural conditions of supply make their location most convenient—the necessary electric power can be laid on anywhere. Let us balance agriculture and industry, town and country—let us do all these sensible and elementary things and *then* let us talk about our culture.

A culture of pots and pans! some of my readers may cry contemptuously. I do not despise a culture of pots and pans, because as I have already said, the best civilisations of the past may be judged by their pots and pans. But what I am now asserting, as a law of history no less than as a principle of social economy, is that until a society can produce beautiful pots and pans as naturally as it grows potatoes, it will be incapable of those higher forms of art which in the past have taken the form of temples and cathedrals, epics, and operas.

As for the past, let the past take care of itself. I know that there is such a thing as tradition, but in so far as it is valuable it is a body of technical knowledge—the mysteries of the old guilds—and can safely be entrusted to the care of the new guilds. There is a traditional way of thatching haystacks and a traditional way of writing sonnets: they can be learned by any apprentice. If I am told that this is not the profoundest meaning of the word tradition, I will not be obtuse; but I will merely suggest that the state of the world to-day is a sufficient

comment on those traditional embodiments of wisdom, ecclesiastical or academic, which we are expected to honour. The cultural problem, we are told by these traditionalists, is at bottom a spiritual, even a religious one. But this is not true. At least, it is no truer of the cultural problem than of the economic problem, or any of the other problems which await the solution of the Democratic Order.

Let us now suppose that we have got our democratic society, with its right way of living and its basic culture of pots and pans. How then do we proceed to build on this foundation ?

My belief is that culture is a natural growth—that if a society has a plenitude of freedom and all the economic essentials of a democratic order, then culture will be added without any excessive striving after it. It will come as naturally as the fruit to the well-planted tree. But when I describe the tree as " well planted," I am perhaps implying more than a good soil and a sheltered position—the conditions which correspond to the political and economic provisions of the Democratic Order. I am perhaps implying a gardener to look after the tree, to safeguard it from pests, to prune away the growth when it is too crowded, to cut out the dead wood. I am. The wild fruit-tree is not to be despised : it is a pretty thing to look at, and it is the healthy stock from which all our garden trees have been cultivated. But cultivation is the distinctive power of man, the power which has enabled him to progress from the animal and the savage state. In his progress man has cultivated, not only animals and plants, but also his own kind. It is just this self-cultivation which we call education, and cultivation, when man directs it to his own species, naturally includes the cultivation of those senses and faculties by means of which man gives form and shape to the things he makes.

If we return to our pot and think of the delicate

balance of the senses of sight and touch which must guide the potter as the clay turns between his finger-tips, we get some idea of the individual factors involved in all creative activity. If we then remember that the potter must direct the work of his senses towards some useful end—for the pot must function—we get some idea of the social factor involved in all creative activity. Substitute for the potter and his clay *any* worker and his material, and you are at the heart of all cultural activity : the same conditions persist, from the pot to the poem, from the cottage to the cathedral, from the horse-shoe to the aero-engine. Sensibility is the secret of success.

There are degrees of sensibility, just as there are degrees of skill, and education cannot, nor should not, smooth them out. But I do not think a democratic order should unduly honour the possessor of exceptional sensibility. It is a gift he owes to the chances of birth, and the possibility of exercising his gift he owes to the society in which he lives. So much of the world's great art is anonymous, and is none the worse, or none the less appreciated, for the fact. Art always aspires to the impersonal. When every man is an artist, who should claim to be a superman ? Which is only a modern version of the oldest and best of democratic slogans : When Adam delved and Eve span, who was then the gentleman ?

HERBERT READ, *To Hell With Culture* (1941)

VOYAGERS TO THE MOON

A MAN is enclosed in a rocket and shot up to the moon.

He is given food, oxygen, covering, warmth ; all the apparatus necessary for living and dying.

He is also given pen, ink, and paper.

He is in constant communication with the earth, to which he is every day sending back messages.

Nothing which he finds on the moon corresponds to anything which has been described on the earth, either in the way of natural conditions or of accepted ideas.

In order to give a true idea of the moon, he is therefore compelled to make people on the earth imagine it. At the same time he has to express the moon in terms of what they already know and feel, otherwise they would not be able to relate the experience of the moon with their own lives.

The voyager is the link between them and something strange. They experience its strangeness through his power of invoking familiarity. If he became completely part of the moon he would bring it no nearer to them. If he became completely part of them he would lose all sense of the moon.

It is only when this man in the moon becomes most conscious of himself on the moon, and at the same time most conscious of himself as a man, that he will be really successful in *creating* the moon for other people.

This is the simplest possible account of the poet's creative activity in life. He retains throughout all the situations in life in which he is an artist the sense of being the man who lands on the moon, steps out of his rocket, and stares at the unexperienced landscape for the first time.

He may only have a limited faculty for seeing situations as though for the first time. Perhaps only a rose, a jug, lovers, steam-engines and murderers seem for ever new to him. But if he loses altogether this sense of what is primitive, original, uncommented on, and unexplained, he will cease to be an artist.

What I am saying is not only true of poets, but, to a varying degree, of all men. Poets specialise in developing their awareness of this kind of vision, and the technique necessary to present it so that an audience can enter into the awareness. Yet it follows from this that the audience has an almost equal capacity for awareness

with the artist, only the function of the artist is to awaken it.

The creative artist must have an infinite faith in the genius of humanity. This is more important even than faith in his own genius, for without a faith that his audience is potentially capable of entering into his most subtle and individual experiences, the effort of communication would not be worth while. This explains why many artists, who are lacking in the belief in a passive understanding in their audience to reward their own creative energy, give up the effort of communication and retire morosely into attitudes of critical superiority.

I have already mentioned that there is confusion about the word genius. It is sometimes taken to mean talent which is prodigious and altogether exceptional, such as the talent of mathematical prodigies, or of great virtuosi. Although men of genius sometimes have exceptional gifts of virtuosity, creative genius in itself does not consist in exercising that which is inaccessible to the rest of humanity. On the contrary, it lies in the deepest understanding of that which is common to all human beings. The great creative geniuses tower above the rest of humanity as do mountainous volcanoes which, seemingly most high, reach down far below into depths where all the surrounding landscape, and the valleys even, are melted into one unity. The writer of genius is not isolated, drawing force from idiosyncrasies which divide him from other people. He is exceptional in having the deepest understanding of situations in life which are shared by many people, and in being able to give voice to the unexpressed needs and feelings of the people round him. He releases not his own genius only but the genius of all men, who, for the most part, are gagged and silenced, unable to express themselves, to know even what they feel.

In the plays of Shakespeare many of the characters are ordinary men and women—ordinary except that

Shakespeare has turned them into poets of genius. He has unlocked from their tongues the poetry underlying the inexpressible conditions of the majority of lives which are lived. Ideally, such a part, spoken in the language of what is universal enclosed within what is temporal, could be spoken for everyone who has ever lived, and who ever will live. That is the faith of great artists who try to create a completely dramatised picture of many significant situations in life. It is the faith of Shakespeare, Dante, Chaucer, Tolstoy, Balzac, all of whose life-work could, theoretically speaking, be extended to include all the situations that exist, will exist, or ever have existed in the world.

One might define a creative writer of genius as one with the greatest power of seeing what is extraordinary within what is ordinary. The lesser artists are those who need the stimulus of what is surprising, new and in itself poetic, to create the poetic in art.

Of course, the situation of the artist in life is more complicated than that of my imaginary voyager to the moon. For one thing, although every instant of time is new, similar experiences seen from a different angle have been commented on by artists in the past. The Elizabethans knew what it was to fall in love, though falling in love has a different relation perhaps to life in our time than it did in Elizabethan times. So the modern point of view must be related to the last point of view, to discover that in it which is really different, which can be modified or added to the experience of the past. Amidst the pattern of all that has been said and done before, whether it remains true to-day as in the past, or has changed and decayed or degenerated into a mere tyranny of habit, it is necessary to cling on to the absolutely simple picture of someone quite alone with pen, ink, and paper in circumstances perpetually strange and new.

For the writer, and for every separate member of his

audience, there are only two realities : all the things which are outside himself—the universe, other people, the whole accumulation of human experience handed down from the past—the conviction that this entire not-self also has a future beyond his own being—and himself. The creative writer is an interpreter always of aspects of this relationship between the not-self and the self. Since everyone is involved in being himself or herself, the writer's task is to awaken the individual to a sense of the reality contained in the very conditions of his being alive, though all his circumstances may conspire to deny these conditions.

Once the simple point of view of the voyager to the moon is lost, then the sense of life is lost also, and art becomes " literary " : a mere repetition of old formulae, things already said, true enough in themselves, no doubt, but not true in a context of a time different from the one in which they were imagined. For the old truth is not true in the mouth of a new poet unless it has been lived again in different surroundings from the one in which it was first written.

If the old is merely repeated by the modern without being re-created, then the thing said usurps the situation of the person who says it, and he loses the fundamental reality of his ever-new situation in life.

There are many ways in which the voyager to the moon may be persuaded to lose the sense of his original, isolated, ever-fresh, and ever-new experience. He is persuaded that documents already written by previous voyagers to the moon say everything that he can ever say, if not more. He is given an honour by the Man in the Moon, put into a position of responsibility in which it would be a mistake to be impartial, to be indiscreet, to tell the whole truth about the goings-on of certain flora and fauna on the moon. He discovers that the odd, fish-like inhabitants of the moon are divided into political parties, and he is soon persuaded by one of

these that if justice is ever to prevail on the moon it is absolutely essential for him to take its side and see everything from its point of view.

If he succumbs completely to any of these temptations he ceases to express the most essential truth, that man is always an outsider, obliged to relive in each generation, through each individual, the same experiences, though in a different time and setting. He is borne down by the chorus of voices from the past almost into believing that every experience has been lived, and that there is nothing new, that his own experiences are insignificant, unreal even, not to be believed. He becomes absorbed into the past, or into the passions of the present, into time, instead of timelessness. He acquires a label or a mask behind which he conceals the reality of his own existence. Instead of being at the centre of his own isolated, unprecedented, perpetually renewed experience, he assumes the state of the landscape, the social caste, the political party, the written words around him. He ceases to be a witness to the extraordinary nature of life.

It is not from a rocket but from his mother's womb that a man is projected into the world. He is completely alone for all his life. He cannot ever understand with any completeness the nature of the world or the thoughts that are passing through the minds of men around him. In doing the most ordinary things, such as going to school when he is a boy, becoming married when he is a man, dying, he is surrounded by precipices, for ever on the verge of the unknown.

The voyager into life is a little comforted by thinking that other travellers have been where he has been before. Everything he does has, in a sense, a name, is a well-travelled path where many have gone. Even the greatest rebels, tyrants, originators, and explorers comfort themselves by calling to mind the example of more daring spirits. No one knowingly faces the

thought of doing something completely new, outside human experience, contrary to the customs of all societies, beyond the most terrible example which history can provide. Yet at every crisis in life, under the old safe name—the first day at school, the confirmation, the wedding, the funeral—we are suddenly faced by the unexpected, that which clamours that it is new, until we are able to silence our agitation, murmuring that fear itself is as old as life.

Sometimes it is possible to think: "The world of customs, conventions, and appearances outside me is a dream. Why should I accept it? Why not flout convention and live my life as though life had never been lived before?" Yet no one is able to do this. The tyranny of what others think and what has been thought is too great, and even those who set themselves on occasion against it try to justify their attitude by appeals to precedent. Each individual attributes the powers of the Day of Judgment to some general, vague, yet tremendous standard of opinion outside himself. The sense of a perfection which he will never attain floats in every man's mind like a cloud which occasionally transfigures someone else, some hero or saint. The loneliness of each individual is so great that he is subject to delusions in which he surrounds authority, the aristocracy, the learned, the brave, with the fantasy of something absolute which puts the possessors of these qualities outside the ordinary limitations of life for him. In this way he is, in his isolation and ignorance of all but his own limitations and weakness, particularly subject to delusions impressed on him from the outside by conventions, inheritance, traditions, causes.

Only a strong realisation of the conditions of life and the nature of man can shake us free from the tyranny of institutions, specialists, political necessity, etc. These things are only of value if we can apply to them our strongly imagined sense of the true needs of life. Then

we are able to remember that the Sabbath is made for Man and not Man for the Sabbath. We cannot do without the Sabbath of social co-operation, yet in every branch of life tradition or political institutions are struggling to become obdurate Sabbaths instead of the vessels which contain the wine of life.

There is always the distinction to be made between the greatness and the dead matter of the past. The dead matter has to be cut away. The greatness has to be relived and re-experienced, unless it is to degenerate into nothing more than conventional good breeding.

The poets of the past laid ambitious claims on life. To them art was not a shrine, poetry not merely a moment when two lovers flushed, the vision of a rose, a sunset touch. Their realm extended over the whole of life, and beyond it, dealing not only with private love and hatred, but with power, the passions of tyrants, and the weaknesses that caused the fall of kings.

The poetry of the past is therefore a mighty river irrigating the whole of life, not despising the tender and the small, though ignoring the trivial. The poets of to-day must keep open this great river by reliving the experiences of previous " messengers to the moon " in their art, in terms of modern life. For the river is not something which the poets wove out of their fancy, it is life. They traced it through the lives of princes and kings and leaders and the poor. We must trace it through slums and factories and war. The fact that roses grew in the courtyards of princes and that they do not grow in factory yards and slums is irrelevant.

If the poets are not able to keep the river of tradition flowing over the same extent of life as in the past, then not only do we lose the sensibility of poetry to the present, we also lose the ability to apply the past to the conditions of the present. The river becomes dammed, swells, and then falls to a still, level lake in a country separated from us by a great barrier of rock. Taking

excursions to the lake, we do not admire the waters for their movement, but for their still, remote perfection. We do not say " This is life," we say " This is the beauty of the past," and we wish that there were beauty like it in our time. We sigh for the flowering foliage that grows on the still water's edge.

Perhaps we take a boat and row upon the waters. Then, resting on them, we look down through their translucency, and on the bed of the lake we seem to see the forms of magical cities of the past. Here in the castles there is movement ; helmeted figures, princes, princesses, strange creatures in glorious clothes inhabit ruined palaces. It all seems a beautiful dream ; even the violence, the passions of these people seen pure and clear, removed from the vulgar insignificance of our lives.

We wish that our modern writers would write about dead princes, ruined palaces, the things of the past. How we regret the vulgarity of the writers of the present, concerned with the life around them, instead of with the vanished past.

Yet, in thinking these exalted thoughts, we betray the past, we betray the present, and we betray ourselves. We forget that when the old poets wrote the cities were not ruined, the princes were still in their palaces, their passions caused destruction to themselves and to others. Is it that we think we can afford to treat passion as a thing of the past, so that we can linger seeing it transmuted to beauty ? Or is it that we do not really believe in life in our own time, which we see compromised beyond the relief of art by debased circumstances ? In either case we are wrong. Our false reverence for the past, and our equally false contempt for our own circumstances, show a disrespect for life, life of which our own lives are only incarnate transient symbols. Until we—those symbols—realise that we are alive and expressions of life, and until we live lives worthy of life, we

are betraying the past as well as the present.

I seem to have wandered far from my analogy of the voyager to the moon. The point of that was that the lonely voyager spoke from an unexperienced, unknown moon to the familiar earth. But the situation which I have finally described resembles that of a voyager between an earth that is known and one that is unknown. The voyager brings with him the sense of the unknown. He is constantly stumbling upon the lunar landscape of his unique experience. Through his unique experience he lives through the experience of other voyagers who have gone before him, he extends their experiences from the past, through the present, to the furthest future; and he renews with living blood of experience the slightly worn experiences handed down from the past, so that they can be handed on to future generations.

The voyager finds that the language itself in which he must re-create and extend tradition is an instrument with a limited number of keys, like a piano. Moreover, on this instrument countless tunes have already been played, certain arrangements of notes are so familiar to the ear that it is difficult to imagine new combinations. The past exercises a tyranny of words and associations over the present. Moreover, present-day vulgarity has set up a series of degraded meanings and associations, through the press, advertisements, commerce, the wireless.

Returning always to the reality of the situation of being alive, three important things remain true. The first is that the world itself remains independent of words, whatever things have been said about it: Nature is infinite and inexhaustible, and therefore every school of writing that wants to break away from literary fashions can do so by forgetting books and appealing to the reality of Nature. The second is that whatever pattern may be imposed on his life, the individual man is still an individual, full of depths, encountering at every turning

the terrifying new and the unknown, involved in the situation of having a body, having to die, and being cut off from his fellow-beings. The third is that life is continually altering, so that nothing said in the past can entirely enclose the present. Life, the individual mind, nature, history, do not become exhausted. Time does not stop. It is only traditions and fashions which become exhausted when they cease to draw nourishment from life. The idea that the world can grow " weary, stale, flat, and unprofitable " is the illusion of a tired brain seeking a new impulse from Nature.

The problem of the contemporary writer is certainly not that everything has been said and that there is nothing more to write about. It is, rather, that in the past hundred or so years the outward forms of life have altered so much that the interpretations of life have failed to adapt the tradition to them. An immense part of life to-day goes untouched by art, undigested by civilisation, lived, but not related to the past, experienced, but not comprehended.

The voyager to the moon is only one of a whole army of such travellers who comprise the tradition of poetry in the past. He is the spearhead of the patterns of past experience pressing against the life of the present to reach the future.

In this sense the tradition is single. The most opposed schools of art are only the different attitudes which the voyagers have adopted in order to penetrate below the claims of appearances to a hidden reality.

The most violent anti-traditionalist may only be a voyager who decides that he is too weighed down by past points of view to be able to relive experience unless he discards the ballast of the past.

STEPHEN SPENDER, *Life and the Poet* (1942)

MUSIC AND POLITICS

RECENTLY Mr. Dyneley Hussey referred to two new works, by Alan Bush and Benjamin Britten respectively, as avowedly " political symphonies," and added that since both musicians held the same political views, the fact that he found one of the works good and the other bad showed how little a composer's political ideas had to do with the merit of his music. There is such complete confusion of thought on this subject, even among musicians, that an attempt to clear it up ought to be welcome to all but deliberate obscurantists, for whom any mental fog is a great help when exploiting people's emotions for their own purposes.

Much of the confusion arises from the fact that music is a sealed world to many people. I once heard a very intelligent but puzzled man ask a composer, " How do you compose music ? " To this man, whose literary knowledge and judgment were of a high order, music was an incomprehensible mystery. He simply could not understand how it happened or what it was. To others the higher mathematics are an equal mystery. Music and mathematics (which often go together) are the two sciences or arts most puzzling to the plain man. This is mainly due to faulty education. Few people are wholly unmusical or wholly unmathematical, and, incidentally, one of the causes of the faulty teaching in these subjects is that music, like mathematics, partakes of the nature both of science and of art, and so offers peculiar difficulties. Both are concerned with the organisation, in a highly special way, of sense-perceptions. These sense-perceptions are not without an emotional context ; pleasure also is associated with them, but it is pleasure of a special kind. Neither the musical nor the mathematical sense is stirred, it is not even engaged, if its possessor learns, for example, that Churchill has shaken hands with Stalin, that the Conservative party has lost a seat to

Labour or *vice versa*, or that the Isolationists have kidnapped Roosevelt.

"But," it will be asked, "did not Beethoven dedicate the *Eroica* symphony to Napoleon?" For the sake of our argument let the answer be: "Yes, indeed, he did. He wrote the *Eroica* symphony inspired by a conception of Napoleon as a great man, taking Napoleon to be a democrat, a destroyer of absolute monarchs, a champion of liberty." But then, when Napoleon made himself Emperor and seemed to be a tyrant, what did Beethoven do? Did he destroy the *Eroica* symphony? No, he only destroyed the dedication, thus revealing that the symphony could stand, since it was the expression of Beethoven's own emotions and of his musical science and art and not the expression of political ideas. Neither music nor mathematics can express political *ideas*, or ideas of any sort except musical or mathematical ones; but since music and mathematics, as we know them, are the product of human minds, human senses, and human feelings, they do express human beings and partake of their nature for good or ill. As well as their sense-perceptions, their passions, possibly of any sort, can be a stimulus to men's intellectual activity, including music and mathematics; so music may seem to result from a political passion just as easily as from a passion for a woman; but a sonata dedicated to Countess Guicciardi tells us nothing about her, only, possibly, what Beethoven thought and felt about her at a certain moment. Another day he could have written a quite different sonata inspired by and also dedicated to her. The very greatness of true art, I would say the uniqueness of art, is that it is not concerned with appearances but only with reality, and I would maintain that Beethoven's music dedicated to the Countess Guicciardi, or to anybody else, did not directly relate to its supposed subject at all. In other words we do not know what great art is about, and the best mathematicians have also found

that they do not know what higher mathematics is about. Why and how is this? I am convinced that in great art, certainly, we are brought into direct contact with what is most fundamental, with what is most real, and it is something much deeper than all temporary appearances.

In other words the symphony dedicated to Napoleon, the sonata dedicated to Countess Guicciardi, have nothing to do with the fact of greatness in Napoleon or beauty in Guicciardi (real or imaginary), but only with a greatness or a beauty conceived by Beethoven; just as Shakespeare's *Hamlet* tells us nothing about any real Hamlet, who may or may not have lived. The conceptions of genius, like the creations of Nature, require a seed in the world of appearances (because they themselves have to appear), which is like the irritating grain of sand round which the oyster makes a pearl. What is unmistakeable is the loveliness of the pearl, the greatness of the *Eroica* symphony, and the beauty of the "Moonlight" sonata. These are real, to be felt as undeniably real by every musical human being in whom the germ of like greatness and beauty exists. Art is not information, that can be imparted to him who does not already even partly know; we can only perceive in art what we ourselves possess an inkling of, and to the degree that we possess it. It is likely that nobody has ever felt and understood the greatness of Mozart's music to the degree Beethoven did, for the simple reason that there has been since Mozart no musician so great as Beethoven. "We shall never be able to compose like that," said Beethoven to his pupil Czerny once, after hearing Mozart's D minor pianoforte concerto. "Neither you nor I could ever have written that," said Mozart to a fellow-musician in Vienna when listening to a Haydn quartet. The inferior are apt to see nothing in anything, but the great recognise greatness, especially in the sphere where they are gifted.

Many difficulties disappear if we remember that in every great artist it is the universal that is embodied in the particular. It is the universal which gives a composer's music truth and value, a truth and value which enables us to use it as a touchstone. Weigh in your heart and mind the writings and speeches of democrats with the music of *Fidelio*, and somewhere you will find the democrats lacking. I would not be content to say that Beethoven loved liberty to a depth beyond their capacity, and to point out that although you could feel this in his music you could not know from his music what particular political idea he associated with liberty. I would further insist that he simply was capable of greater love ; he *loved* more, so much more that no such comparison is possible. So true is this that if ever there came about a world of men where liberty was hated and tyranny loved, Beethoven's music would either be totally meaningless to them or would seem to them, equally with us, the truest and deepest embodiment of their passion. . Difficult as it may be for our human intellects to imagine, both liberty and tyranny are superficial appearances compared with the more elemental or primary reality which is in Beethoven's music. When I listen to the prisoners' choruses in *Fidelio* I feel that no prisoners ever felt so deeply. When I listen to Shostakovitch's " Leningrad " symphony I feel that the citizens of Leningrad have more in their souls than the tremendous physical energy and fervour which is in the symphony, fine as that is. In the *Eroica* as in *Fidelio*, Beethoven shows himself greater than his supposed theme, in the " Leningrad " Shostakovitch shows himself less. But if you are speaking as a politician then, of course, a Bonapartist says " the *Eroica*, that is Napoleon," and a British Communist says " Shostakovitch, that is the greatest composer the world has ever seen."

In his art a man reveals not what he pretends or

wishes to be but what he actually *is*. This is clearest in the art of music, fairly clear in the art of painting (where it is slightly obscured by painting's power of representation or imitation), and very dark in literature, where the simple and the self-deceiving and wishful thinkers can never resist taking words at their face value. The writer who says "I believe in the people" will have all the people believing in him and his belief—all except those who developed literary sensibility and natural powers of mind and soul are adequate to discern the worth of what the writer says from his style; for style is the man, not a trick that can be borrowed from other writers. The mere words can be used by anybody, and their dictionary meaning is the same whoever uses them; what gives them significance is when, somehow, they have depth, when they are connected with a universal reality, the invisible source from which all life springs. When we call an artist great we mean that the truth is in him, that he is rooted in this fundamental reality. It is this that makes him a great artist, while his specific manner of expression, the medium in which he works and makes the real appear, is what makes him a painter, or a musician, or a writer, or a mathematician.

W. J. TURNER, *The Spectator* (1942)

ON ENGLAND

SUDDEN SPRING

It is Midsummer Day in the year 1941, the air so quiet and warm in the early morning that you can hear the voice of someone shouting orders to a platoon of soldiers beyond the woods four or five miles away. A little breeze has sprung up in the night. Yellow leaves now and then shake down from the willow trees, and with them a sprinkle of cotton seed. Savage scarlet stalks of poppy and cool white wands of foxglove are blooming against the apple trees. The birds are already quiet, but you can hear now and then the greedy, quibbling voice of a young cuckoo, fresh flown from a nest of hedge-sparrows, where he has been fed for a fortnight at the rate of five or six hundred meals a day. For a short time there was the sound also of someone driving wedges into cordwood across the road, but now that has stopped, and the only persistent and continuous sound besides the light sound of wind in summer leaves is the sound of bees working the grey-violet catmint flowers, where the black cat already lies asleep in the sun.

They say it has been the coldest spring for a hundred years, but now the heat is tremendous. The wind began to whip down off the Arctic Circle on New Year's Day, blowing a blizzard of fantastic driftings through the naked hedges wherever there was a high, exposed lie of land, and it blew with ice in it until the second week of June. On June 14th it was so cold that we had hot drinks by a coal fire in the evening of a day that had been as grey as January ; on June 15th it was so suddenly warm that all among the yellow water-lilies of the lake the fish were rising and leaping in shoals, and

turquoise dragon-flies were quivering mad on the reeds, the water-grasses, and the clear, sun-brown water. A day later, in the heat of the evening, a pair of moor-hen went crazy. They began to quarrel first in an island of reeds, flopping and clucking, but at last they came out into open water. Out in the hot sun they did a strange thing. They fought a rearguard action against each other. They spread out their black-and-white tails fan-wise like peacocks, and from a short distance made a series of blind, angry rushes at each other backwards, ramming at each other with a stiff fan of tail-feathers. Then for a time they stopped rushing. They began to go round and round each other in circles, sparring for an opening for attack. Sometimes they reversed, then stopped, then began again, movement for movement, until it was like an Apache dance on a floor of lily-leaves. Finally, they made the old tail-fan rush at each other, striking blows with feathers taut and outspread with anger, until eventually something was satisfied and they suddenly ceased and became calm and swam smoothly away. The next day it was so hot that the fish, as you caught them, even under the thick shade of the poplar trees, died and stiffened in two minutes when you laid them in the grass. Crowds of little steel-blue dragon-flies quivered furiously above the water and among the fawn-gold grass seeds, shaking tiny clouds of pollen from the stalks that were now as high as a man. They poised like blue humming-birds against the scarlet cap of the float, so close that they looked as if attached to it, momentarily like the trembling blue sails of a miniature ship that itself quivered every few moments and sub-merged. Then it rained out of a sky intensely blue and hot without a cloud. The fat, warm drops came down like huge clear bird-droppings, splashing heavily in the water, and the air was no cooler when they ceased. Everywhere there was the heavy fragrance of flowering grass and sun-warmed water and may-blossom, and

faintly on the wind the last sweetness of field-beans. The sky had a clear distant splendour, and you had a feeling that summer was everlasting.

A week before it was winter ; but now the oats were feathered and the wheat was in ear. The day before the rain came down out of a clear sky I drove to the South from Lincolnshire, where the dykes looked cool on the flat, wide-skied land. Coming down I gave a lift to three Czech soldiers. It was nice weather, I said, and they said : " Yes. Also it is nice now in every country." To them, summer, when it came, was a permanent thing until replaced, at the proper season, by the fall of leaves and finally winter. It was very hot as we drove along, and at last I stopped the car at a hotel and said to the Czechs that we would stop a moment and water the horses. We got out of the car, and the Czechs looked a little bewildered, and I asked them what was the matter. " Please, where are now the horses ? " they said.

The English are not a very literal people. Phrases like " Watering the horses " and " It's a nice day " are often just jokes. The English always long for summer, and they know that some time or other it must and will come ; but when it does come, they are, as in war, never prepared. They go about in an attitude of astonished and delighted discomfort at the sudden blazing of sun. To them summer-time is an impermanent and ephemeral thing. Earlier in the year, on a cold, raw, May evening bright with sun and golden slopes of cowslips along the railway cuttings, I travelled with a Canadian airman. " I can't get warm," he said. " You never have two days the same." I said : " Yes, but that makes us what we are. The most unprepared people in the world, and yet never surprised." He looked at me and said, " I beg your pardon ? " and I could see that he had never thought that perhaps the English had been both hardened and softened, shaped

and yet kept plastic, by their extraordinary climate that changes day by day or even hour by hour.

In other countries there is, perhaps, a date for summer, but in England summer, like spring, has no date. No torrents of spring come rushing like thick milk down snow-pied mountainsides brilliant with tourists and wild narcissi. In towns spring will come, perhaps, at some unspecified date in April, vaguely, with a lovely artificial glory of forsythia trees and almonds waving in suburban streets, and the townsman is made aware of it, not by something marked on the calendar, but because suddenly, with a slight impulse towards exhilaration, he can walk without his overcoat. But it is very different in the country, where winter is a series of miniature springtimes, a day here, an hour or two there, marked by delicate changes of light, a December catkin on the hazels, a January primrose, a February day bounding with bird-song and calm with flat sunlight drying the overnight rain.

For the third year in succession England has seen a winter of great snows, ice-rain, bitter frost, days of sunless desolation. Yet I remember a day, February 10th, as a day of spring : not the sort of day on which you persuade yourself there is a feeling of spring, a vague air only to be caught at certain moments by sensitive persons, but spring in reality. The outside world is taught in its cradle, apparently, one word about the English climate : fog. This word has become irretrievably identified with the obtuseness of English character, so that all over the world the English climate and the English character are clichés. The climate is foggy, the people are dumb—these are common face-values for England.

But whenever I think of the English weather I think again of two refugees. One was Czech, one German. Both fled their country and came to England. They, too, had been taught, in their cradles, that the word

England meant fog. The German had been taught something else : that England also meant industry, that in England there was no such thing as the countryside. He had spent his life of forty years with the strange conception that England was a series of industrial centres linked by bus-routes. He came to live in Kent, and among the cherry orchards, sweet-chestnut woods, chalk hills, beech-woods and the rich, fertile, flowery sleepiness he had his first lesson about England. The Czech, too, had a surprise. He knew little about England, but he had grown up a very truthful, honest young man. It was only when he wrote home to Prague in the month of February and said, " Here in England the crocuses and daffodils are blooming in the garden and the baby sleeps all day in the sun," that he earned among his people that reputation of being something of a liar.

This February day was just the sort of day which caused the young Czech to write the lyrical truth to his people and not to be believed. The sun was strong and warm, and the air was shaken by a light westerly wind ; flowers were really blooming in the gardens, and the baby really slept in the sun. The grass was luminous with rain, and from daybreak there was a bright call of bird-song everywhere. Thrushes sang without rest, and even a cock chaffinch lifted a warm claret breast to the sun, trying over and over again the same little trivial notes, pausing, wiping his beak as if to sharpen it on the olive branches of the willow that gleamed with varnished yellow buds, and then tried again. Straws on the hedges, cleaned by snow and rain, were dry and silken again in the sun, bright as daffodils against the plum-dark background of hawthorn. The sallows, like sticks of silver fur, were motionless in the wind, but the hazels moved with the lightest stir of the air, dancing and flagging, leaping horizontally at sudden stronger gusts of wind.

In the garden it was hard to realise that exactly a

week before an immense blizzard raged from the northwest, driving through naked hedgerows in vast fantastic drifts of marble dusted a pepper-brown by storms of frozen earth. Now the winter aconites were blooming flat in the sun, a brave lemon-green among tufts of snowdrops. Leafless crocuses, pale mauve touched with fawn, and small alpine anemones, pink and white, were pushing away the drifts of light sepia oak-leaves that have covered them all winter. Here and there a touch of vivid blue, an early grape hyacinth, showed up an eye of magenta-purple, a primula pushing up from wine-veined leaves. The roses on the house wall were breaking with crimson shoots, and the daffodils showed buds low down between twin spears of leaves.

Blessed with one of the most capricious climates in the world, the dumb English have had the sense to import many of the symbols of spring from other people. Not knowing or caring that the grape hyacinth is a weed in every field and vineyard of southern Europe, the English import it and cherish it, together with crocuses, daffodils, anemones, and other imported weeds and treasures, as symbols of the turning year. And as it sometimes happens, as now, that spring breaks a month before its time, the dumb English have the occasional satisfaction of gathering flowers long before people living a thousand miles to the south of them. Even without these imported treasures—and later they can boast wild daffodils, wild snowdrops, and even wild tulips ; yes, and wild gladioli of their own—they have two native flowers which by themselves make the early English spring a time of certain loveliness. For countless generations primroses and violets have meant spring to English people.

Between the snows, on sheltered banks, in copses cleared of saplings, both have bloomed all winter. Hazel catkins softened and lengthened in December, were scorched by January frost, and by February were long and sweet again. In times of terrible crisis, when

the chance of individual survival is carried about like a frail egg-shell in the hands, are such trivial things worth mentioning? Vague and pompous talk of "new orders," new worlds, and new faiths shake the world like the rumblings of an empty belly. Will somebody invade us? Shall we survive? No one, it is said, can foretell what the future holds, what will happen a year from now.

But it is clear that some things are certain and can be foretold. One is the spring. If these islands should one day be invaded by foreign armies, perhaps some young German will know the pleasure, shared by generations of Englishmen, of feeling, the February sun warm on his face, of seeing honey-green catkins of hazel and tawny-purple catkins of alder shake in the wind above primroses on the banks of an English stream—and so, like the young Czech, learn his first lesson about England. For climate is more than weather. Climate helps to shape the character of peoples, and certainly of no people more than the English. The uncertainty of their climate has helped to make the English a long-suffering, phlegmatic, patient people rather insensitive to surprise, stoical against storms, slightly incredulous at every appearance of the sun, touched by the lyrical gratitude of someone who expects nothing and suddenly receives more than he dreamed.

H. E. Bates, *In the Heart of the Country* (1942)

ENGLAND REVISITED

First, for the benefit of those who have not done it lately—on leaving home. The boat slides away from the quay. There is a moment's pain. Those lucky people waving from the shore: they can go back to change their books at the library, read the evening paper, fix the black-out curtain, put the kettle on, let

the dog out, or go to a lecture in the Home Guard. But for you and me it is diminishing cliffs, then sea, then a landscape which is not England. We buoy ourselves up with thoughts of adventure before us, we think of soul-stirring articles about democracy, freedom of speech and thought, how awful the Nazis are. Or we may even think that we are helping to build a new world. Or we may turn in and have a drink : or be seasick. But deep down in our innermost selves, or rather in my innermost self, I think we put ourselves to this inconvenience of leaving our homes not because of all these advertised abstracts, but because we want to see England again.

It is something really terrible, this longing for England we get when we are away. The other month I found my eyes getting wet (fortunately there was no one about) at the sight of moonlight on a willow stump covered with ivy. It reminded me of a willowy brook in the Berkshire village where we used to live before the war. And then I looked at the stars and even envied them in their icy remoteness, because they were also shining on my home village. We have all been taught in my generation to avoid the sloppy and sentimental. Exile from England has uncorked the bottle of sentiment for me and I could go on gushing for hours, indulging myself at your expense. I remember the most trivial things about home. The trouble about the cow parsley, for instance. Someone had decorated the altar of the parish church with cow parsley. One side said that cow parsley was an unworthy flower for so prominent a place, the other side said that cow parsley looked very nice on the altar, much better than garden flowers and it was always put on the altar at that time of year, anyway. I have forgotten what happened. Then I think of a story someone told me during the Battle of Britain, before I left England. She had to go and judge a Women's Institute competition for the best-decorated

table centre in a village in Kent. Bombs and aeroplanes were falling out of the sky ; guns thundered and fragments of shell whizzed about. " I am afraid we have not *everybody* here," said the head of the Institute. " You see, several of our members had to be up all night, but we have quite a little show all the same : " and there they were, the raffia mats, the bowls of bulbs, the trailing ends of smilax writhing round mustard and pepper pots, God be praised for such dogged calm.

My eyes, my nose, my ears all strain for England when I am away : oil lamps on bold Gothic mouldings at evensong in a country church ; tattered copies of *Hymns Ancient and Modern* ; the crackle of the slow combustion stove ; the pleasantly acrid smell of flowering currant bushes on the platform of a local station ; the cat in our backyard " licking the sunshine off its paws " on a still summer day ; shopping in a big town and for me, the gambling den which will one day bring my wife and children to starvation—the second-hand bookshops, the stalls in Farringdon Street, London ; remote haunts in Highbury and Islington. There used to be a form of funny illustrated joke. It showed Englishmen in the tropics dressing for dinner. I don't think that joke funny any more. I believe these Englishmen did it because they wanted to pretend they were home again, not because they were highly conventional.

Really, this self-pity must stop ! I am not half so badly off as thousands of others. I don't dress for dinner. I have a job which enables me to return to England quite often. I am not some luckless prisoner or a wounded man, sweating in a hospital in the East. I shall see England every three months or so. But there are certain things about England I have noticed on my more recent visits which you in England ought to know about. First, English people—persons who in the old days would get into the railway carriage with you on a cold day and leave the door open. They shut the door now. People

in public buses and trains are much pleasanter. Heaven protect us from the railway carriage military strategist. But if you have luggage, people will help you to lift it in, even if you are a civilian as I am. Why, the other day in the train, a party got in with a luncheon basket and insisted on sharing out their sandwiches and drink with the rest of us in the carriage. Twice in a week I was given a free cup of tea in country public-houses. Everywhere I went I found people much nicer to one another than I ever remembered them before the war. From only one stranger did I receive a rebuff, a formidable spinster in some uniform or other. We were passing through a village I knew and I inquired whether Mrs. So-and-so still lived there. She said "Yes." Then she looked at me and I saw behind her cold grey eyes an argument going on. "This unhealthy-looking brute is trying to get military information from me." So she suddenly added, "No, she doesn't." I cannot say I minded, for her attitude showed the trained, cautious behaviour of my countrymen, still on the watch for paratroops.

And if strangers are pleasanter, my friends I find kinder still. They uncorked the last bottle of wine, they shared their sugar ration with me, they were delighted to see me although they were all intensely busy. I was warm, confortable, and well fed during the whole of my visit. Indeed I would go so far as to say that a certain chain of hotels, one of whose houses I patronised, has improved since the war. The food is no longer so pretentious and you can see what you are eating. The prices are lower too. But the two most noticeable things of all about English people since the war are these—the breakdown of class distinctions and the new standard of values. It seemed to me as though people now take you for what you are like personally, not for how you stand in the social scale. Then there seemed to me to be less materialism about,

less bother with money. I noticed people reading books on philosophy and religion, sitting next to me in trains. I could swear that those people before the war, would have been reading the financial news or filling in competition crosswords. Of course, all this sudden revelation which has led me to make what may seem sweeping statements may be due to absence from England. Possibly everyone was simply delightful before the war and I didn't realise it.

I did realise, however, and I realise more strongly than ever to-day, how exquisitely beautiful are the villages and old towns of England. There are the obvious things : Ludlow's great sweep of old houses up the hill from the rich Shropshire valley ; the flint towers of Norfolk and Suffolk, where roads wind like streams among the elms ; the bulging barrows of the chalk downs where thatched houses cluster among elm trees in hollows and white roads wind up from them to the sheepfolds ; Salisbury Close with its ancient houses, stone walls, wide sweeps of grass, and cloud shadows chasing over the silver-grey magnificence of the cathedral ; hundreds and hundreds of place-names of hundreds and hundreds of unspoiled places with stone churches, heavily-ticking church clocks, modest post-offices, creeper-clad wardens' cottages, rusty croquet hoops on rectory lawns, swinging inn signs and well-stocked gardens where brick paths lead through thyme and vegetables. To think of the names is to feel better : Huish Champflower, Whitchurch Canonicorum, Willingale Spain, Bourton-on-the-Hill, Iwerne Minster, Puddletrenthide, South Molton, Wotton, Norton, Evenlode, Fairford, Canons Ashby, Bag-Enderby, Kingston Bagpuize. The broad sweep of England's beauty is obvious enough, the immense variety of building stones and sorts of landscape to be found in a single county. But this is so easily destroyed, not by bombs but by witless local councillors, people on the lookout for building land,

electric-light companies, county councils with new road schemes, the wrong sort of " planner."

Planning is very much in the English air now. And that is a good thing if by planning we also mean preserving. But let the planners be careful. It would not be worth our being away from England, those of us who live in the country, if we had to come back to find our villages transformed into single blocks of flats towering out of unfenced fields, with an inter-denominational religious room at the top of each tower for services conducted by wireless (voluntary attendance). And those of us who live in old towns do not want to see everything swept away to open vistas where vistas were never intended. Hitler has opened up a few good ones. Let us leave it at that. Of course we do not want slums to remain, nor to live in cottages in the country where there is no water and where the roof leaks. But slums can be rebuilt into habitable places—not always into flats—and cottages can be repaired. Perhaps we shall be allowed to live in the sort of England recommended by the Scott Committee, where country shall still be country and town shall still be town and where we who wish to keep the country worth looking at will not all be thought cranks and reactionaries.

Think of a single old brick or piece of stone in an English house or garden wall ; centuries of sun and rain have mellowed it and over-grown it with lichens and moss and shaved off its sharp angles ; think of the slopes and swags of an old tiled roof seen from the top of a country bus ; think of the lay-out of an old town or village, the winding roads to it, the Georgian merchants' houses in the middle, the L-shaped farms on the outskirts, the church tower gathering the hours round it like a hen with her chicks. In a single week of planning, centuries of texture can be brushed away. Is all to be re-planned, are we only to bask on our own flat roofs and swim in municipal pools and feel half

naked at home because our outside walls are all of glass? Are all roads to be straight and all wild-rose hedges to be swept away? All trees except quick-growing conifers to be cut down? All this for the rather doubtful advantage of running hot water in everybody's bedroom and aeroplanes for all?

I do not believe that we are fighting for the privilege of living in a highly developed community of ants. That is what the Nazis want. For me, at any rate, England stands for the Church of England, eccentric incumbents, oil-lit churches, Women's Institutes, modest village inns, arguments about cow parsley on the altar, the noise of mowing machines on Saturday afternoons, local newspapers, local auctions, the poetry of Tennyson, Crabbe, Hardy, and Matthew Arnold, local talent, local concerts, a visit to the cinema, branch-line trains, light railways, leaning on gates and looking across fields; for you it may stand for something else, equally eccentric to me as I may appear to you, something to do with Wolverhampton or dear old Swindon or wherever you happen to live. But just as important. But I know the England *I* want to come home to is not very different from that in which you want to live. If it were some efficient ant-heap which the glass and steel, flat-roof, straight-road boys want to make it, then how could we love it as we do?

When people talk to me about "the British," as though they were all the same, I give up. They have never lived in England and I know how useless it is to explain to them about cow parsley on the altar, villages, Women's Institutes, life in English towns. One cannot explain anything at once so kind and so complicated. If I could explain England, if it really were a planned ants'-nest which we could all generalise about, I, like thousands of others, would have no home to which to return.

JOHN BETJEMAN, *The Listener* (1943)

THE ENGLISH AT WAR

THE English army in 1939 was too small, too ill provided with modern weapons, too much impressed with the lessons and the personalities of the last war, to play anything like the rôle it had played in 1914. The war was even less like what had been foreseen than it had been in 1914; the bad diplomatic preparations made the British share of the military effort more inadequate to the needs of the alliance. Instead of a retreat from Mons, the Marne, the Aisne, Ypres, there was disaster and the abandonment of the Continent. Menaced with invasion, forced to fight with inadequate forces far from its bases and to fight alone, it was no wonder that the British military record was poor. Military thought had not been encouraged during the long armistice years and an army needs constant stimulus to thought. Nor was this initial defect easily remedied. Germany had gained a good deal of technical knowledge, cheaply, in the Spanish War; every victorious campaign taught her more. But the English army was always labouring behind with no time to seek perfect or even adequate solutions. Where the barest minimum of equipment was scarce, fine improvements in design were easily neglected. Where the nearest approach to modern equipment that was available had to be sent on a voyage of 14,000 miles, a voyage taking months to make, it was natural not to wait on perfection.

And for modern war of armoured divisions striking like thunderbolts over great stretches of country, no country could be a poorer training-ground than the crowded island. The nearest approach to an open manœuvre area, such as the Germans have and the Russians have and the Americans have, is Salisbury Plain, which a good-going Panzer division would cross in an hour. There is no English equivalent of Pomeranian heaths or Louisiana swamps, where mimic war

can be practised with some reasonably close approximation to the real thing.

So for two years the British army had to fight battles at the end of one of the longest communications lines in history, or to train in a crowded island where real battle conditions were almost impossible. The army so constituted had to find its officers from a mass of not highly military young men whose very virtues were not always assets. Quite often the new junior officers were much cleverer than their professional chiefs ; even more often they thought they were ; it took time and the stern test of war to find leaders. Thus, but for the Burma campaign, General Alexander might not have been given a chance to show those talents of leadership, of making bricks without straw, which he later used to more obvious advantage in Egypt. But however useful a lost campaign may be for testing men and leaders, it is not stimulating to the outside observer. The American newspaper men had a very different estimate of McClellan from that of his soldiers, and Lincoln had to pay a great deal of attention to newspaper men in an election year. Churchill had not the same temptation, and Alexander and Montgomery were given their chance. That they succeeded is a matter for general gratification, but it must have been a matter of surprise for many Americans who took too seriously the ingrained English habit of not expecting much (in words) of the Army. What they expect in their hearts is a final victory when more brilliant and professional armies have got tired and see by the rules of the game, as Ludendorff did in 1918 and Pétain in 1940, that all is lost. It is then that the English soldier gets his unprofessional revenge, and then that he and the English people reap the harvest of their generosity. Because they are kind, not to say generous, to unfortunate generals, the survivors in the elimination contest do not suffer from delusions of grandeur, nor do the unsuccessful

feel that since they have failed there is no hope that any other leaders or methods can succeed. The most successful English generals have had stern critics, some of them not even young, in their own armies. As readers of Thackeray may remember, good Tories backed Webb against Marlborough, and in Wellington's army smart young Whig subalterns were ready with socially superior sneers at the ease with which Wellington was outmanœuvred by Masséna or Marmont, and cynical at the luck which persistently followed that pushing general who was not accepted at Holland House.

It has been no bad thing for the British army that, even in its own eyes, it has no unchequered record of success. Other armies have taken a grim pride in gallant but unsuccessful actions. The Continental army was not ashamed of Brandywine, or the Army of the Potomac of Fredericksburg. Virginia has not forgotten Pickett's unavailing charge, or Georgia the last campaign of Hood. But no army has made such a cult of the gallant and often foolish last stand as the English. No other country has a nursery rhyme which tells how the " grand old Duke of York " marched his men up and marched them down and marched them back again. And that very English figure was a more popular commander-in-chief than Wellington and occupies a pillar in London almost as high as Nelson's, while Wellington is commemorated by Achilles posing awkwardly in the nude, like the advertisement of a physical culture school.

The British army is a very English institution, even to letting the chief credit for its not infrequent victories go to the Scots and the Irish and the Australians and other peoples with more taste for martial glory than the nation of shopkeepers, the most soldierly of unmilitary peoples.

The English are a nation of players of team games and makers of engines and runners of races. So the success of the R.A.F. has nothing surprising in it. The

countrymen of Watt and Parsons and Rolls were not at a loss mechanically, nor were the countrymen of the great sailors or the great aviators of the last war unworthy of their predecessors. It is unnecessary to insist that the R.A.F. was a good thing ; even those who have not watched their arabesques in the air over London in September 1940 realise that in the fate of the handful of fighter pilots who then defeated the invading aerial army lay the immediate destiny of the world. It was a Thermopylae that succeeded. And the new Spartans were largely the products of the new secondary schools that had conformed from necessity largely to Athenian standards.

There is one permanent exception to English irony, resignation, indifference, or whatever you like to call it. Ships and the sea, above all the Royal Navy, are exempted from this complacency. In the last war, as in this, it was naval disasters or failures that astounded and angered the men in the street—and almost everybody lives in this street. It is not merely that Britain is an island, that the sea is all around and near at hand, that no one lives more than thirty or forty miles from tidal water, or that there are few fields that have never seen a seagull. It may be because these are basic facts that the devotion to the Royal Navy is so deep and wide, but that devotion is now a thing in itself.

The military tradition is one of victory, but of victory by muddling through, of success won mainly by toughness, of not knowing when you are beaten, and of applying horse sense. English war on land is (in the national tradition) an extension of sport, last-minute victories won by gentlemen over players. Some of the most popular English soldiers have been not notably successful, but unsuccessful admirals do not become heroes, if only because the Englishman never remembers that there have been any. His picture of naval war in the past is a picture of endless victories, won often against

formal odds but won by skill, by energy, by initiative. The typical English land victory, as seen through the eyes of the man in the street, is won by standing an attack until the attackers get tired of it. Such was the great symbolical victory of the last war, First Ypres. Such was Waterloo. Such was not Trafalgar or the Nile or the Baltic. It is not Wellington waiting till the French had got tired of attacking—and until Blucher turned up—but Nelson who is the national hero: Nelson finding excuses for not receiving orders that might have kept him from attacking; Nelson breaking through French and Spanish fleets, like a modern Panzer division, as Rodney and Hawke had done before him; Nelson winning with sailors and ships at the highest degree of technical efficiency. The British army traditionally has got along by taking it, the Royal Navy by dishing it out.

It is because the Englishman has thought himself immune from invasion at home that he has been able to afford the luxury of his imperial commitments over all the Seven Seas. It was because the Royal Navy saved England from the militarisation imposed on all other European countries that capital and energy, human and material, could be sent off to points as remote as Hongkong or Aden. It was this political freedom of action that gave what truth there was to the old claim that English naval supremacy maintained order on the oceans, put down piracy in the China Sea, or slave trading in the Persian Gulf. But such police work did not call for the great battle fleets that cruised in the Mediterranean or the North Sea. Much smaller fleets would have kept Malayan seas safe for commerce, or protected missionaries in the Solomons. But it was because the home of the merchants—and the missionaries—was saved from exterior political pressure by the great fleets at home that much smaller investments of the power paid such handsome dividends to British and all

other business civilisations in the last century. A serious threat to naval supremacy at home weakened English power to the end of the earth ; the rise of a first-class naval power in the Pacific presented a problem that could only be solved if there was no threat to British security in Europe. A Berlin-Tokyo Axis was in the nature of things ; a power seeking to establish a new empire in Asia was in fact dependent on the appearance of another would-be world-empire builder in Europe. This is the basic explanation of the fall of Singapore and of Burma.

But, of course, there are other reasons too. Nearly every technical improvement in shipping methods, or in the character of modern war, has told against English sea power, has made its traditional task more difficult. The change-over from coal to oil has made the fleet dependent on a foreign source of power ; the coming of the submarine and the aeroplane has made the command of the surface of the sea less decisive. The decline in international trade—a decline that has affected England more than any other country—the growth of subsidised mercantile marines, have reduced the English share of world shipping, the great pool on which the Navy draws for men, for ships, for technical resources of all kinds. At the same time, defeat on land has made the long coastline from Narvik to Biarritz one great base from which the Germans, with perfected weapons, can carry on a more deadly war than they did even at the height of their naval power in the last war. The carrier plane, the submarine, the shore-based bomber have all diminished the effect of sea power ; the loss of Crete and the siege of Malta are proof enough of that. It could be said—it has been said—that the rôle of sea power is now of little importance, that the blockade matters less, that the heirs of Blake and Nelson are defenders of an effete tradition. It may be so and yet, just as Napoleon thought himself forced to march east and south when

he had failed at Trafalgar, so Hitler thinks himself forced to march on Moscow and Cairo and possibly on Madrid as the master of the land mass squirms in the slowly tightening coils. For if sea power is not what it was, the absence of sea power is as great a handicap as ever. Europe, west of Russia, is almost an island. It has lived by ships, by rivers, by canals all terminating in ports. The great railway nodal point, Chicago or Kansas City, is rare in Europe. It is to the ports that the arteries of Europe run. And there European economic life clots as the British blockade forbids the free circulation of the blood that is the life of armies as of peoples.

In their attitude to other navies and other maritime peoples, the English are, if not arrogant, at least paternal. Only fleets that have fought great actions against the Royal Navy really count. Great admirals like Santa Cruz and Duquesne and Farragut are forgotten, because they did not win or lose a battle against a British fleet. De Ruyter, Tromp, Tourville, Hipper, Suffren—these are great names, as Villeneuve, Grasse, De Winter, von Spee are honoured names. They all played in the World Series that is always won in the last game by the same team. But some clubs give the Yankees a better run for their money than others. So at various times great men or great fleets have given the Royal Navy a great deal of trouble. But as, it is believed, the navies of the world wear three lines on their collars in innocent commemoration of Nelson's three great victories and a black scarf to mourn his death, all sailors acknowledge (or should acknowledge) the pre-eminence of the Navy whose power has not been really shaken in the three centuries in which primacy on land has passed from Spain to France and then to Germany.

But the prestige, the pride, the unshaken fame of the Navy is extended to all seafarers, to all aspects of sea life. Far more real than his alleged love of the land

is the Englishman's love of the sea, or at any rate his reverence for the sea. That, and not the narrow acres of the little island, is the field he harvests or wishes to harvest. "A ship is a floating prison," said Dr Johnson, but its servitudes and its grandeurs have won many generations of the countrymen of Collingwood and Dr. Johnson. There are few villages in England, even the inland villages, where a link with the oceans is unknown. Sailors come from Wharfedale as well as the coastal ports; and men who have made fortunes, or simply livings, in all regions of the world can be found in the most rural and untroubled spots. But sailors who follow the sea because their fathers did before them are common enough, especially in the great naval ports, and going down to the sea in ships is still a normal avocation, with its own risks and perils. More than any of the other great nations, though not more than the Greeks or Norwegians or Dutch, the English have the sense of the sea in them, the tradition of the sea not far below the surface, the acceptance of the demands of the sea as a kind of second nature. How well and how properly did Joseph Conrad protest in the last war against the simple, ill-mannered surprise of a politician who had noted that the sailors of the merchant navy showed an automatic discipline that a mere factory could not expect of its workers! The traditions of the Royal Navy affect the merchant navy, and the existence of a great seafaring population keeps the Royal Navy from being too narrow a caste. Both have made great sacrifices in this war as in all wars. Their losses have fallen on the same social groups and both can say with equal truth: *La mer fidèle y dort sur mes tombeaux.*

D. W. BROGAN, *The English People* (1943)

THE SOMERSET CHURCHILL

To visit Churchill in Somerset one has to go through Bristol, and it is no good pretending that that noble city offers in this year of disgrace its usual heartening and historical prospects. Its state is, frankly, horrifying. Its most characteristic streets are ravaged or razed, and there are desolating things to be seen on all sides. But the English spirit abideth. "You'll find the place a bit altered, but the people just about the same!" said the first person I spoke to in the first whole tavern I could find. King William III, dressed as a gladiator, looks as imperious as ever on his delightful bronze horse in Queen Square. Edmund Burke orates still to a not terribly altered Centre. And King Neptune in Victoria Street, presented by a citizen to celebrate the defeat of the Spanish Armada, brandishes his trident angrily at what the enemy's bombs have done to Bristol.

The little village of Churchill is some fourteen miles south. Five English villages bear this distinguished if easily derivable name. There is one in Devon, one in Oxfordshire where Warren Hastings was born, and two in Worcestershire. I found the Somerset Churchill full of peace in the midst of war. There were, it is true, some of war's overtones in all the conversation that was to be heard. There was, for example, this which I surreptitiously took down verbatim in the first inn I visited: "That bomb we heard last Tuesday week was sure intended for Varmer Wookey's special pigs!" The thing fell harmlessly in a field half a mile from the exclusive sty, but it was obviously not for me to make the impertinent suggestion that Varmer Wookey was not in the enemy's black books any more than every other man-jack of us. At another juncture I could not avoid overhearing one Home Guard officer say to another over his cider that he secured obedience and attention from the men under him by the device, at

once subtle and simple, of always addressing them as "Gentlemen!" These were, however, the only serious observations I heard in a very brief stay, and the only acknowledgments that a war is waging. Even nocturnal aircraft speeding obviously in the direction of South Wales with their evil bales passed without comment from this peaceable Churchill.

The term "a typical English village" means to the realist of to-day a shapeless huddle of dank old houses, three pubs, a more or less interesting church, and a surround or stiffening of brisk new bungalows with roofs of raw red tiles. To the persistent romantic the term conveys a pleasant cluster of mixed Elizabethan, Jacobean, Queen Anne, and Georgian houses and cottages, three ancient taverns, some necessary but unobtrusively modern shops, and a church which adds to its architectural fascinations the tomb or at least the baptismal record of some man of letters, art, or action, whose name is in everybody's biographical dictionary. Now Churchill in Somerset is a compromise between these two conceptions of the English village. It must disconcert the realist and perplex the romantic. It is a long, sparse, arrow-shaped place lying along the base of the Mendip ridge. This arrow points away from and towards Somerset villages, like Wrington, which are far more compact and ingratiating. Churchill has a few good solid houses, and three inns appropriately named the *Churchill Arms*, the *Nelson Arms*, and the *Crown*. It has a fine old church, aloof from one end of the village, though the Churchill knight buried there, who returned from the wars in 1644 to find his wife dead (his effigy still looks sorrowfully down on her shrouded form), is a hero unknown to fame. It has a modernish mansion-house, aloof from the other end; it has one or two shops in each of which you can buy anything from a bun to a boot-tree. And it has long strings of bungalows sprawling out into the country, each of them doubtless

comfortable, and all of them undoubtedly crude. That is the truth about Churchill.

In a horticultural homily the other day Mr. Middleton, talking of parsnips, achieved a delightful line of unconscious verse, the purest Lewis Carroll : " They do not like strong, fresh manure ; it makes them coarse and fangy." Meaning no offence in the world, in fact offence's opposite, one would like to observe that the people of Mendip are like thoroughly well-brought-up parsnips. They are smooth and mannerly. Nothing, for example, could be less coarse and fangy than their behaviour to strangers. Like most West Countrymen —I speak for those of Worcester and Gloucester and Hereford—they stop and talk civilly and offer advice or help. The little children, evacuated or local, said " Hallo ! " to me. The postman on his round said " Good marnin', zur," and regretted that he could not recommend me to a barber since the Churchill barber had gone off for the day to set up shop in another village. Did the postman share my disapproval of the staring new cottages ? He did, and remarked : " Why doan't they stay in the village 'stead of straggling into the country lanes and spoilin' 'em all ? " I asked the good fellow what was the plant so remarkably prevalent in all those lanes. " It beats Oi ! " said he when I showed him a specimen. It was the hart's-tongue fern. Somer set's colours, at least in the early spring, are the rich roan of the soil and the pale green of this fern. The friendly postman left me with a warm recommendation to his own native village three miles away, shouting from his bicycle as he rode away : " An' they've gotten a reg'lar barber, zur ! " He was a Cowperish postman : " a man of letters and of manners, too."

The old men who have their sons serving do not talk of them, or even of the European mess. They talk of their friends in the next village, or they jest about their own youthful escapades. They are like Hardy's old

rustics, ever the same, though the world trembles and dynasties pass. "With all his faults," I heard it said of one Fred, "he wur a rattlin' good poacher!" Another old man, with periwinkle-blue eyes like the late E. V. Lucas, had a memorable and highly successful observation which I feel I was lucky to hear. The sardonic pause in the middle of it was, as we say of actors, beautifully "timed." He said: "I've allus held it's wicked and a cruel thing to strike a woman—it's best to kick 'er!" And elsewhere, at closing-time, there was an elemental conversation which I certainly was not supposed to hear or enjoy. Tom, as I entered, had been holding forth in a rather irreligious manner about church-going. He had been to church twice only in his life, to be christened and to be wed. And old Zam gazed at him over his cider-mug with an expression of affectionate scorn. "Twice only," repeated Tom. "An' virst time a' make a good deal o' noise about it, zo they tell me. An' second time a' had hardly a wurd to za-ay!" Then the deadly Zam butted in: "An' third time you woan't have nought to za-ay at a-all!" And after that we all had to go home-along.

Cider is, of course, the staple drink, and it was surprising to note that, in wintertime at least, it is as often as not first heated in a pan over the tavern fire, poured back into the mug, and drunk hot with or without a sprinkle of ginger. You ask for rough or sweet cider, or half-and-half; and if you should say "How do you do!" to a Somerset lad he answers, "Rough and fair, zur—mustn't grumble!"

The place's history is obscure, though its gentle, helpful, and scholarly vicar will go far out of his way to help you if you are interested. Churchill Court, an ancient but much-restored manor-house adjacent to the church, was bought by a certain Ralph Jenyns in the year 1563. It may be proved that his great-great-granddaughter was Sarah Jennings, who became Queen

Anne's Viceroy Sarah. There are documents to indicate, also, that in 1652 the Jennings family sold the Court to Sir John Churchill, who was made Recorder of Bristol in 1682 and Master of the Rolls in 1685. There are two beautiful Jennings brasses inside the church, and on the wall above them you may see the Churchill coat of arms, which is, as appropriately as any good Englishman of to-day could wish, a Lion Rampant. It is an odd, asseverated, and curious fact that the Jennings family sold the whole village to Sir John eight years before Sarah was born, and with, of course, no possible notion that there should ever be any uniting of the two families. The alliance, with its effect on English history as great as that of any royal marriage, duly took place. It is a strange coincidence that both parties should have had their roots in the Somersetshire Churchill, but it is a coincidence that proves nothing. Neither bride nor bridegroom was born, nor lived, nor died in the village I visited. The truth must be told that the great Duke of Marlborough saw the light at Ashe in Devon, and his imperious lady in a manor-house near St. Albans in Hertfordshire. The village's ancestral connections with the present Prime Minister are therefore tortuous and dim. But its connection in mood, spirit, and resolve is direct and flaming.

ALAN DENT, *Preludes and Studies* (1942)

THE FACE OF ENGLAND

THE ravages, of course, began long before the war. The invention of the internal-combusion engine may be regarded with justice as the greatest single disaster in the history of mankind. Not only has it destroyed the security of England and made wholesale death and mutilation familiar things; it has also destroyed the beauty of England, killed quiet, and, with quiet, dignity.

Take, for example, the case of Sussex. Who would have thought, as we wandered years ago through the Weald in spring and saw that incredible profusion of primroses and wild daffodils, or in summer through the empty spaces of the high downs, that these things upon which we had been nourished in childhood and had grown to rely upon in manhood, turning to them again and again for rest and refreshment of the spirit, would in our time be destroyed, dying before we ourselves should die? Yet so it is. First, the railways scattered their scurf of "resorts" along the coast and accumulated little ganglions of vulgarity around their stations, as an alien body thrust into the flesh accumulates a zone of inflamed tissue around its place of entry; but the county as a whole remained inviolate. Then came the cars. The south and south-east of England were brought within the range of daily accessibility from the centre, with the result that London burst like a bomb and scattered its debris far and wide over the faces of Surrey and Kent, and presently over that of Sussex. With the coming of the car the peace of the county was broken, its traditions destroyed, its power to refresh and reinvigorate the spirit, a power which depended in part upon its emptiness and its peace, impaired. Its inhabitants bought gramophones and grew basely rich; its roads became maelstroms of traffic along which cars hurled their inert occupants to the coast, its valleys came out in a rash of angry pink; every hill-top had its villa, every village its multiple store, while the sacred peace of the downs was broken by the snorts of motor-bicycles and the hoots of straining cars. If the horde of invaders had derived benefit from their defilements the case, though bad, would have been bearable. In fact, however, the majority of those who rifled beauty were unaware of what they did. Walking, just before the war, on Amberley Down, I came upon a small Austin perched upon its highest point, outraging the sight of all beholders.

I approached, intending to draw the attention of the occupants to the beneficent but unobserved law which forbids a car to park itself more than fifteen yards from the highway (see the Road Traffic Act, 1930). Within it sat a young man and his girl. Their backs were to the view, their windows shut. They were sitting stolidly, side by side, listening to the fat-stock prices over the wireless.

I mention these things, taking the case of Sussex as a symbol of a process which was occurring in its degree all over England, to illustrate my point that the process of destruction was at work long before the war—the forces that generated it spring, indeed, from the very matrix of our times—and will continue, unless checked, long after the war is over, with the result that Southern England will cease to be either town or country and will become a single suburb sprawling amorphously from London to the coast.

But the onset of war has enormously accelerated the process of beauty's destruction. All over the country lanes are being turned into roads, trees and hedges are being cut down, turf is being gashed by lorries, margins and verges destroyed by tanks, fields converted into seas of mud, covered with concrete or asphalt, stacked with dumps, or littered with rubbish. Great tracts are studded with concrete posts or bound with barbed wire. Meanwhile barracks, camps, Ack-Ack battalions, search-light units, aerodromes, air-fields, munition works, and all their attachments and appendages in the way of hutments, shacks, rubble, barbed wire, latrines, tents, and rubbish dumps, are bidding fair to turn England into a devastated area. It has long been known that, with the possible exception of poultry, soldiers create more ugliness, destroy more beauty, and do these things more rapidly than any other form of living organism. "It is no use," said a friend of mine in the Army, referring to the mess that has been made of Box Hill,

"expecting us to do any different. Wherever we go we shall destroy trees, cut up the grass, make mud, leave tins, stick up wire, and generally make a mess."

Let me for illustration cite two widely different pieces of country with which I happen to be familiar. The first is Hampstead Heath. There is no need to describe that tormented piece of ground, nor to dilate upon the love which those who live beside it come to feel for it. In the last twenty-five years it has been subjected to every kind of outrage. It has been fenced in and asphalted. It has been trimmed and cut and made genteel according to the L.C.C.'s notions of gentility. Huts have been built upon it and shelters : containers for waste paper have been nailed to its trees. Many of the trees themselves have been cut down, while those that remain have been lopped into ungainly shapes. In the last war and again in this one large tracts have become wombs for the gestation of vegetables. Nevertheless it has its merits. . . .

The first thing that happened after the declaration of war was the descent upon the Heath of fleets of lorries to collect sand for the filling of sandbags. Excavators were installed, and day and night the surface of the Heath was scooped away. A hill topped by a great tree became a yawning chasm a hundred yards across. The chasms—there were many of them—were presently fenced in and thus large fresh areas of the Heath have been withdrawn from the public use. In the course of these operations, gates were taken down, posts removed, and footpaths, forbidden hitherto even to bicycles, were opened to the sand-bearing lorries. Presently there were barracks, searchlights, and guns, each bringing its attendant train of huts, roads, motor-bicycles, and lorries. When the blitz came, the Heath was used as a dumping-ground for debris, and vast piles of rubble now disfigure the swards of its long-suffering slopes. More recently two great areas of this tract of

land which belongs to the public, and most of which was left to the public, with the deliberate intention that it should be used for their pleasure and recreation, have been seized and enclosed within barbed and anti-invasion wire. I may not, I suppose, say what is being done within those two tracts—in fact, residents are forbidden either to approach or to inquire—the situation having now been reached in which not only does the Army consider itself entitled to take what it pleases in its determination to protect England from its inhabitants and localities from their residents, but to forbid the inhabitants to refer to what it takes and does. I confine myself, then, to saying that the effect of these enclosures has been to withdraw from public use—and incidentally to devastate past recovery what has been withdrawn—so much of the remaining acres of the Heath that, if the war continues for another two years, all that will be left of Hampstead Heath will be a few fenced-in paths along which the public will be carefully shepherded by the guardians of guns and the growers of vegetables in perpetual apprehension lest they should by inadvertence stray upon the land that has been filched from them.

In the areas that do still remain, amenities which have been enjoyed ever since the Heath was first used by the public have been withdrawn. The reaction of many people to the fact of war may be summed up in the phrase, " There's a war on. Let's shut something," and accordingly, on the declaration of war, two of the bathing-ponds on the Heath were incontinently closed and have remained closed more or less ever since. One pond remains open for men, but women last summer had no facilities for bathing at all. The sand-taking, the hill-removing, the road-making, the huts, the lorries, the allotments—all these, no doubt, are justified on the grounds of military necessity. But why shut the bathing-ponds, and why disfigure what remains of the Heath with piles of rubbish ?

The point of these questions lies not merely in my inability to resist the pleasure of giving vent to the grievance of a long-standing resentment, but in their ability to introduce what seems to me to be an important distinction. The distinction is between such disfigurement of the country as may be necessary as ancillary to the war effort and that which is the result of mere lack of consideration, the by-product of the thoughtlessness of those who, having never cared about beauty one way or the other, regard those to whom it is important as poseurs, cranks, highbrows, and unmitigated nuisances assisted by the spiritlessness of those whose business it is to protect beauty and to protest when it is needlessly rifled, but who, out of timidity or laziness, accept the overriding plea of military necessity, when it is, in fact, very far from being overriding. Thus we have two categories of cases. In the first are those in which military necessity justifies beauty's destruction ; in the second, those in which beauty is destroyed not because destruction is necessary, but because nobody has made it his business to find out whether it is necessary or not. Cases which fall within this second category may be further subdivided into those for which no military necessity can be urged, since H.M. Forces might just as well have gone elsewhere, and those in which there is a justification in terms of convenience for taking place A rather than place B, but the gain in convenience is so slight that, if we were disposed to rate beauty at more than two straws' value, we should, even in war-time, have the courage to insist on place B being taken, because beauty still counts, and the loss of much beauty is more important than the gain of a little convenience. Let me illustrate by citing my second tract of country—the Lakes.

But now, having saved up the outrages upon the Lake District for the main illustration of my thesis, I find that military necessity which is adduced for the Lakes' defile-

ment is also invoked to prevent me from mentioning where it is and what. I can, I suppose, mention in a general way workmen's dwellings, pumps, factory installations, new roads, bases for this, that, and the other with their attendant hutments, but I cannot for obvious reasons say where they are. The fact that the very military necessity which they urge in justification of their depredations can be employed to silence the voice of criticism and protest ought to make the authorities doubly careful before they rape beauty, which can be no longer defended. It is like hitting a man whose hands are tied. Let me, then, confine myself to pointing out that the Lake District is a pre-eminent example of a case falling within the second category, though possibly within the second division of the second category. The Lake District is the most beautiful and the most vulnerable area in England : its beauty is at once sturdy and frail ; frail because it depends upon a remoteness easily destroyed, a peace readily shattered, an absence of roads which can be all too quickly made, a freedom from ugly buildings which can be all too expeditiously constructed, a bareness of outline which can be all too quickly blurred (as, for example, by the blankets of firs planted by the insatiable Forestry Commission), and a harmony of valley and hill, of cultivation and wildness, and, consequently, of agricultural and pastoral interests, such as exist in a similar perfection nowhere else in these islands. The Lakes are also possessed of the capacity to arouse in those who have once fallen under their spell a love as intense as it is abiding. Also—I shall return to the significance of this—the Lake District is the first and foremost candidate for the rôle of National Park. Hence the importance of leaving it undefiled even in war-time. For nothing will convince me that the pumping stations and the factories and the huts and the bases and all the rest could not have been accommodated with equal convenience elsewhere—I

think for example, of the vast spaces of moorland in Northumberland, on the Simonside moors, for instance, or of the empty tracts of Hadrian's Wall—or with a convenience so little less as not to weigh in the balance of any civilised scale of values against the prepondering value of handing down the Lake District intact to the world that is to come after the war.

The Lake District having failed me as an illustration, I cast round for alternatives that may be mentioned, albeit with circumspection. Where is the half-mile that contains the most and the greatest beauty in England? I answer without hesitation that it is that which runs along the backs of the Colleges at Cambridge, and of that half-mile the crown is the three hundred yards or so which stretch behind King's. There are flowers, there are the great trees, there is the turf, there are the exquisite bridges, and there is the view of the college behind. This place has been chosen for the aggregation of some hundreds of lorries. They have gashed the turf and trampled the flowers; they have been driven in sheer exuberance of disinterested Yahooism over the bridges; their ungainly carcasses shut out the view of the colleges. Anything more inappropriate, any greater insult to the centuries which rejoiced to make England beautiful than this most characteristic product of the century that does not scruple to make it ugly, it would be difficult to imagine. We ought to have noticed by now that beauty shrivels at our touch, and at least have learned the decency not to touch it. Did military necessity dictate that the lorries should be planted precisely here?

Again, it is no doubt necessary that masses of lorries should be available in central London, but does military necessity demand that they should be strung out all along Kensington Gardens, as though the object of those responsible for their disposition was to see how large an area of the Gardens the lorries could be made to cover?

An Order in Council was made in September 1940 which authorised War Agricultural Executive Committees to give farmers permission to plough up the paths running across their fields. Very good! But are we, therefore, to be debarred from the use of these footpaths for the rest of the war and for so long afterwards as the food shortage persists? Let me explain. Nobody in the present emergency can with reason object to the ploughing-up of footpaths. The obligation to turn your tractor when you have ploughed half-way across a field because you have come to a footpath is burdensome to a degree, and is often not observed even in peace-time. It is simpler and quicker to plough right across a field before turning, and everybody agrees that in war-time this ought to be done. What is important is that, once the path is ploughed, people should be permitted to tread it down again. In other words, the fact that it has been ploughed should not be allowed to entail its withdrawal from public use. The loss of crops involved in the treading-down of ploughed footpaths would be minimal—an ingenious defender of our rights of way has calculated that a diagonal footpath two and a half feet wide running across a ten-acre field would involve a diminution of the total production of the field of rather less than a half per cent—the advantages great. They are the maintenance of traditional rights and the meeting of current needs. The rights are to the use of footpaths which usually constitute short cuts between villages; they are very pleasant to the walker, and have been used by the public from time immemorial. The needs are, first, the needs of the villager; secondly, the needs of the considerably increased rural population, and especially of evacuated children, for somewhere to walk out of reach of the cars and the lorries, which incidentally are killing about 9000 people (army lorries alone) a year; thirdly, the needs of the townsman for recreation and the refresh-

ment of country sights and sounds.

This last may be urged as a purely utilitarian consideration. Let us suppose that we forget the existence of beauty; that we consent to overlook the fact that man has an aesthetic sense or, if you prefer it, a soul. Even so, I would ask those who believe in the war, the whole war, only the war, and nothing but the war, whether it is wholly wise to forgo that increase of efficiency which the relaxation of tension and a little time with Nature may bring. And where, I would ask further, are people to go in search of that recreation if not along the footpaths? The roads? But they are monopolised by the lorries. The woods? They are sacred (or at any rate, until recently were) to the preservation of pheasants. The moors? They are reserved for the shooting of grouse. The coasts? They have been earmarked for the Tank Corps or the R.A.F. We have been told that alternative facilities must be provided. What facilities, and who is to determine whether they are adequate? Are three sides round a field instead of a diagonal footpath across it adequate? Or since, after all, there is always the road, is going by the road adequate? Moreover, one notices that no machinery is specified for ensuring the restoration of the footpaths after the war is over; nor does a cursory knowledge of the history of the English enclosures and an acquaintance with the habits of English landlords and farmers give grounds for assurance in this direction.

Similarly with the huts, the barbed wire, the concrete, and the asphalt that disfigure the Lake District. We are told that all this will be cleared away. Why should it be cleared away? There is no profit in clearing it away, and when in England has concern for beauty ever led us to take action which failed to bring us profit? Each of the successive industrial revolutions through which England has passed has littered the countryside with its debris. The next revolution does not remove the debris

of the last ; it leaves it derelict and adds its own.

So much for complaints ! I come now to remedies, but before remedies can be indicated I must be permitted to mention one or two general principles upon the acceptance of which their claim to efficiency must be based. In spite of the incorrigible Philistinism of the English, we are, I think, most of us prepared to concede that beauty is important, and that the freedom to enjoy beauty, where one sees it, is one of the ends for which we are fighting. For we are fighting, are we not, for the individual's right to live the good life as he conceives it, without let or hindrance from others, provided that he himself does no injury to others? Let us suppose that he conceives it to lie in the enjoyment of natural beauty ; then, if it should turn out that in the course of winning the war we have deprived him of the conditions in which alone the good life, as he conceives it, can be lived, our victory will to this extent have been barren. So much for the first of my principles.

Now for the second.

I have contended that though military requirements are paramount, they are not exclusive, that other things count even in war-time, and that, when the other things are important and the loss of military convenience involved by taking account of them is small, then some loss of military convenience should be accepted. Now these contentions obviously involve certain assumptions, and, in particular, two. The first is an assumption about the present situation. It is a fallacy to think of the war and the peace which is to follow it as two slices of history, periods of time which are juxtaposed but separate. In fact, they are the overlapping phases of a developing revolution. It follows that to treat the war as one thing and the peace as another, with the implications, first, that all we have to think about now is the winning of the war, leaving the peace when it comes to look after itself, and, secondly, that what we

do in the course of winning the war will have no effect upon the ensuing peace, is a mistake. Refusing to make this mistake, we shall deduce that from some things which might help us to win the war we should nevertheless refrain precisely because they would prejudice the peace. Thus if it would help us to win the war to cover all the Lakeland fells with firs, or to build factories round Wastwater, the acceptance of the principle might debar us from planting the firs and erecting the factories. Again, because the planning of the England of the future is being postponed until the peace, other ravages which have no bearing upon victory in war, but are merely the latest expressions of the system of private profit-making without reference to communal need, upon which we have been brought up and which dies so hard, are being committed throughout the length and breadth of the land. For example, though the private jerry-builder is for the moment out of action, his activities are only postponed ; meanwhile, his advance guard, the private land speculator, is very much in action, as witness, for example, the following public letter from a country lover in Cornwall :—

" Here in Cornwall—one of our most sparsely populated countries—land which was let in 1930 at one pound an acre, and which was farm land for hundreds of previous years, is being sold for building at the rate of £1280 per acre.

" The only reason for this price is the fact that it is the only land left for developments within the urban area. Actual value is £30 to £35 an acre, but monopoly value extorted is forty times that price.

" The Duchy of Cornwall, a public body, is the culprit, and the vicious example set by them is being copied successfully by all local land jobbers and speculators."

This brings me to the second assumption involved which, in its turn, depends on the acceptance of a scale

of values. This I must announce dogmatically. Some things are better than others, some ways of life more desirable, some communities more civilised. Beauty is one of the things that are better, and an appreciation of and respect for it are factors in the ways of life that are more desirable and elements in the civilisation of communities that are more civilised. In the nineteenth century the young were at least brought up to pretend to love the highest when they saw it, and genteel culture was the homage which barbarism paid to beauty. In the twentieth century the public schools have taught them to heave a brick at it, excepting only when it presents itself in the form of natural beauty.

This brings me to a new point. Though we despise art, we do not in this country mind confessing to a love of Nature. Indeed, one of the most hopeful features of our generally depressing times is the growing awareness of natural beauty among those who have come to maturity in the period between the two wars. The English have the ugliest towns and the most beautiful countryside of any people in the world, and the credit for the discovery of this fact must go, on the whole, to the present generation. Until the last twenty-five years their inhabitants took the towns for granted, and on Sundays lounged in their streets until the pubs opened. The present generation sees these agglomerations of industry and hovels for what they are and, turning its back upon them, goes, when it gets the chance, in increasing numbers to the country. Hiking, in fact, has replaced beer as the short cut out of Manchester.

If I am right, the conditions in which alone this, the one beneficent revolution of our times, can go forward and prosper, are being imperilled, the one avenue through which beauty comes readily to the young men and women of this country is in danger of being blocked.

The consequences are appalling to contemplate. The beauty of England is the one certain thing which stands

between the post-war world and the inauguration of a "Brave New World." For consider. . . . If we win the war, if the world is made safe for democracy, if, in fact, our civilisation survives at all, it will survive with greatly increased leisure. Given a reasonable distribution of economic benefits under some form of socialism, we may look forward to a world in which men and women will be assured of financial competence in return for some four or five hours' machine-minding a day. What, one wonders, would such a world be like? I can visualise an England in which whatever land is left over from cultivation is covered with a network of golf courses and tennis courts, or whatever form of ground the popular game of the future requires. Our roads will be covered with a solid mass of cars wedged into a stationary and inextricable jam. Our coasts will be ringed with a continuous series of resorts at which jazz bands will discourse negroid music to tired sportsmen and their over-nourished wives. A deluge of news warranted not to arouse thought will descend upon the defenceless heads of the community through every device of television and telephony that the science of the future may have been able to perfect. New creeds and cults will spring up like mushrooms overnight to amuse men's extended leisure, to exploit their unused energies and to minister to their starved souls. In fact, "Brave New World" and all that it stands for!

Now I am anxious to beat the Nazis, but I am not anxious to beat the Nazis in order to establish "Brave New World." Yet such, I am convinced, will be our fate unless some provision is made for the re-creation and refreshment of man's spirit in intercourse with natural beauty as an alternative to the standardised, mass-produced, creation-saving amusements with which it will pay a new race of entrepreneurs to tap the pockets and debauch the leisure of the economically comfortable and enormously leisured proletariat whom the Socialist

Utopia of the future will provide. It is in these more ultimate social considerations that the importance of preserving the countryside lies. But it will not be preserved, unless we are prepared to plan its preservation and to plan it now.

C. E. M. JOAD, *Horizon* (1942)

LOOKING TO THE FUTURE

HIGH POLITICS OR NONE

ONE of the first reforms we must attempt if we are to give wider meaning to freedom is reform of our politics. This is not so much a question of changing our political institutions as of changing our attitude. We must pay heed to the fact that no other weakness of our world has made us as vulnerable to the attacks of Hitler as the degradation of our politics. They are supposed to mirror the intelligence and good sense of the common man ; we have allowed them too often to become a mean satire of those qualities. The rot has gone so far that Hitler, the self-appointed Master, is convinced that the intelligence of man is but a " random path " which is leading the race to destruction. Mankind has proved itself incapable of judgment, says Hitler, incapable of intelligence. The challenge to our civilisation has never been put more succinctly.

If intelligence is a " random path," there is no place on earth for people such as us. From the Old Testament to Atlantic Charter, every great moment in the life of our culture has been a moment of high intelligence. We have always believed that when we are thinking most straight, most purely, we are giving expression to the divine spark in man.

Yet is it not strange that Hitler should look upon our world and decide that intelligence is a " random path," a fungus growth which has no roots in the real soil of life. Hitler has little education ; but he has a Dostoevskian genius for understanding the weakness of the corruption in man's heart.

With this unfurnished mind, freed from any basis in favour of the world about him, and with this rare but

poisoned genius, Hitler watched our twentieth century with a mounting contempt. "Intelligence," for him, does not mean what it means to us who have had the privilege of knowing the past. We think of the myths of Plato, the definitions of Aristotle, the awe-inspiring clarity of a line in Dante or Racine. We think of the Roman law, of the common law—centuries of devoted thought, of subtle experience. We think of our friends who have given their lives to the natural sciences with a passion which is not far from holiness. We think of the great literature of politics in the seventeenth and eighteenth centuries.

Hitler is free from any such knowledge. His thoughts are more simple—and in a horrible way they are more applicable to our modern scene.

When he thinks of politics, he does not know about Locke or Hobbes or Rousseau. He knows that Mayor Kelly of Chicago makes a local joke of American democracy. He knows that Chamberlain didn't understand the world he was dying with. He knows that Laval—the most intelligent of the lot—can be bought. He assumes, therefore, that all talk about high politics, about politics based on principles, is merely a trick to keep fools and thieves in power. He assumes that the rôle of intelligence in democratic politics is to devise such knavish tricks. So what price intelligence?

When he thinks of literature, he does not think of Dante or Milton, whom he has not read, or of Aristotle, whose precise mind would frighten him. He thinks chiefly of two literatures: first, the long wail of pacifism and self-depreciation in which the democracies indulged for twenty years; second, the Wagnerian orgies of Nordic romanticism which are the literature of his heart's desire. Neither of these expressions of man's weakness is much of a recommendation for intelligence.

And when Hitler thinks of science he thinks in terms that suggest the personnel department of a great cor-

poration. He thinks of sending for a well-trained man who will show him how to get the results he wants.

Why should Hitler respect intelligence? Not knowing that glorious record of man, he knows everything disgusting about our present failures. He knows about the Chicago of Algren's book—though most Americans do not. He knows the South Wales coal reports—though most Britons do not. He knows the sales of fortune-telling magazines. Above all, he knows that when democratic politicians meet to conduct the affairs of a great people, the level of their discussions would not always tax the imagination of a horse-shoe crab. So he assumes that intelligence is a form of decay, that it is one of the many proofs that civilisation becomes unhealthy unless it is renewed from time to time by German-administered blood baths.

In a contemptuous passage Hitler has this to say of the weakness of people who depend upon their intelligence for decisions: "We shall always be stronger than the democracies, in being able to guide their public opinion according to our wish. They cannot defend themselves against such attacks, for otherwise they would have to become authoritarian themselves. This creates such an inequality that even considerable differences in military strength are neutralised by it."

According to democratic dogma, a free people can defend themselves, by the use of their reason or their good sense, from having their opinion "guided" to suit a tyrant's whim. According to Hitler this is not possible. Reason is no protection, because reason can always be tricked or perverted. Truth is no protection, because truth can be overwhelmed by enormous totalitarian lies. Intelligence is no protection, because a sufficient appeal to the basest and most violent emotion will always cause intelligence to abdicate. And as for good sense—the final stabilising health of mind and consistency of spirit which the great democrats have

found in the common man—Hitler denies it exists. He thinks he has proved, through his own cynical experiments on the mass mind, that it doesn't exist. Here is a basic challenge. We must study it as a lesson, since Hitler's methods have not been unsuccessful. And we must meet it head-on as a challenge, proving by our conduct that Hitler is wrong. If he is not wrong our system of life and of government cannot endure.

Here, as in every other field, the issue has been forced by our enemies. We must either be great or we must be defeated. By denying the possibility of high-minded politics, in which on the whole good sense and truth and intelligence prevail, Hitler has proved to us their necessity. We must either have high politics or none. We can no longer indulge our taste for third-rate politics : laziness and venality, tempered by democratic good humour. If we cannot do better than that, the game is up ; there are no politics in a totalitarian state.

In seeking to improve our political life we must be careful not to expect too much, and not to rest our democratic faith on assumptions which cannot be supported. If we say that the common man is infallible, or that the voice of the people is infallible, we are talking nonsense and inviting disappointments which must ensue. But if we say that the opinions of the common man, when he is given a fair chance to form opinions, tend to show good sense and to be the best basis for the decisions of government, we are saying what can be proved both from the record of the past and from the experience of the present. On this unboastful statement we can build a politics consonant with man's dignity, and we may even hope in time to unite the world in the name of that dignity.

It is also important, in seeking to improve our politics, that we understand what it is we are improving. There are two sides to politics : the formation of opinion, or

of national policy, and the carrying out of such policy through government agencies. Politics are the method by which we try to decide what public policy we want, and also the method by which we try to put that policy into effect. The two parts of the whole can be separated for description, but they cannot be separated in life. Neither can exist alone. There can be no politics, in our sense, when policy is created by one man and his advisers, just as there can be no politics in our sense when policy is applied or carried out by naked force.

The concept of government, as civilised men have developed it, implies restrictions on the use of force. The concept of the state, as it was known to the ancient world and as it is being revived to-day, implies the opposite. "Government," says Professor Carl Friedrich, "is a set of activities organised by and operated on behalf of the people, but subject to a series of restraints which attempt to ensure that the power which goes with such governance is not abused by those who are called upon to do the governing." We tend to take such statements for granted, finding them dry and ignoring their vast implications. The fact is that government as Professor Friedrich describes it, government which imposes restraint upon the use of power, is necessary to the existence of our Western civilisation. The idea of restraints derives inevitably from the Christian doctrine of personality. If the individual personality has a final value, if each man's soul has an absolute importance, there must be no such thing as a state with unlimited powers to coerce that soul or twist that personality. Professor Friedrich goes further and makes a statement which sounds paradoxical, but which is in fact one of the great clarifying comments in the literature of politics. In a Christian and democratic order, he says, *the state does not exist.*

In the United States and Great Britain, for example, we have the nation, which is both a physical fact and

an idea around which our loyalties and our patriotism centre. And we have our constitutional government, with its restraints upon the use of irresponsible power. And what else? Professor Friedrich thinks that this is all, that in considering our own country we have no need for the concept of the state. In fact he thinks that the concept hinders us in understanding the nature of our politics.

The idea of the state was developed in antiquity and revived at the Renaissance to describe the various forms of political absolutism. Wherever unrestrained power is exercised, the men who exercise it are likely to justify themselves by saying they act in the name of the state. Wherever the use of power is restrained by constitutional government, there is no need for the awe-inspiring abstraction, the state. There is only the geographical area (the nation, the city, the empire, or whatever it may be) plus the government. The introduction of a further concept merely clouds the mind.

A sovereign "state," in this sense of the word, rules by coercion. A constitutional government rules by consent. It is a method which men have devised for carrying on the public business with the minimum of injustice. It is good in so far as it promotes order without sacrificing freedom, bad in so far as it interferes with man's spirit or breaks down into either anarchy or tyranny. "Government" as here used is the antithesis of the sovereign "state," just as consent is the antithesis of coercion. The rise of totalitarianism has made these distinctions of prime importance.

"The state and sovereignty," writes Professor Friedrich, "are historical phenomena which may or may not exist at any particular time and place. They very probably do exist in the totalitarian countries to-day; they did exist whenever absolutism held sway in seventeenth and eighteenth century Europe. States are indeed associations of men; like *il stato* of Lorenzo de'

Medici, from which they derive their name, they are parties (gangs or brotherhoods) of men occupied with establishing or maintaining power over other men. The common man, by definition, cannot be part of a state in this sense, because if he were, he would become an uncommon man. The belief in the common man and the belief in the state are incompatible."

Our religious heritage requires of us a belief in the dignity and worth of the common man. Our political institutions have been formed to protect this belief and to give it chance for expression. If we neglect those institutions or misunderstand them, if we neglect our religious heritage or forget what it demands of us, we expose ourselves to the danger that there may appear in our midst men willing to seize absolute power and to bring back that ancient curse, the sovereign state. There can be no Christianity in such a state, no honour for the common man. Our fathers knew this in theory, which is why they laboured to build a constitutional government and not an irresponsible "state." We have learned the lesson practically, watching with astonished eyes while all the theories of our fathers are proved by the most ruthless of teachers. This is why we must labour not only to destroy the Axis but to remove the sovereign state, the Moloch state, from the face of the earth.

The problem of constitutional government, however, is not merely the problem of how to restrain the use of power. It is not force which is to be feared, but force in the hands of rulers who cannot be held responsible by their fellow-men. A government must have unlimited power to act, and at times to act fast, or it cannot survive the recurring emergencies of our unquiet world. The aim, therefore, is not to create a government which is too weak to do harm, for it would also be too weak to live, but to create a government which is strictly accountable to public opinion and which therefore can be

restrained from going counter to public interest. In a government under which the soul of man has a chance to develop fruitfully, watch is kept on the behaviour of those entrusted with power. But this raises the oldest of human problems. *Quis custodiet custodes?* Who will watch the watchmen? All the constitutional systems of the ages are attempts to answer this question. And all the attempts can be classified under two headings. One is the multiple system, which seeks to partition and separate the powers of government and to distribute them among various agencies, so that authority will always be subject to checks. The Roman Republic, the mediaeval republics, and the states in the American Union are examples of this system.

The other type is the reverse of the multiple-agency system. It concentrates power in the executive, and sets up a representative body whose sole task is to watch and criticise the executive. Professor Henry J. Ford described this system as follows: "It does not scatter power but consolidates it. So to speak, it puts all the eggs in one basket and watches the basket. It allows to the government the staffing and management of all its agencies and then holds the government accountable for results. The representative body is in no particular a participant in the administration, but it is a control over the whole administration of public affairs in behalf of the people." The government of Great Britain and that of the Swiss Republic are examples of this system. Professor Ford believes it is the only system which deserves the name "representative government"—the only system in which the representative assemblies do not tend to become "weak, mischievous, distrusted, and despised."

There is no question that the multiple-agency system, which seems on paper to give the maximum of power to the people and the maximum of protection from government corruption tends to become so complicated

that the citizen does not exercise most of the power which is his. The citizen abandons a large part of his power to the professionals, and then falls into apathy and cynicism when faced with the results. Unless this tendency can be overcome, we must conclude that the multiple-agency system, with all its elaborate checks and balances, actually works against the highest form of politics by making the citizen feel discouraged about his ability to participate. In this connection it is worth noting one of Professor Ford's brilliant political aphorisms : " Whatever assigns to the people power they are unable to wield, in effect takes it away from them." A government which on paper is wholly responsible to the will of the people may, if it demands political efforts which they are unable or unwilling to perform, end by becoming a government of party bosses and machines. The constitution which seems to confer upon the people elaborate powers to conduct their own affairs may really be withdrawing those powers from the people and conferring them upon the backroom boss. It is possible to make politics so complicated, the division of powers and the system of checks and balances so elaborate, that only the professional politician takes the trouble to penetrate the mysteries.

These remarks may not seem immediately relevant to Britain, where there is a proper concentration of power in the executive and therefore a proper accountability so long as Parliament remains a truly representative body. But there seems to be a growing feeling that Parliament is no longer always such a body ; that the smoothly working and relatively simple British machinery for the selection of candidates seems at times to be as baffling to the public as the over-elaborate American system. In both countries the electors are frequently presented with two candidates neither of which they want and neither of which they have had a hand in choosing. It is to be hoped that if an attempt is made

to reform the British system by instituting greater public controls, the American experience which is summed up in Professor Ford's maxim will be borne in mind, so that the cure should not prove worse than the disease.

Man's efforts at self-government are always a compromise between the demands of order and the demands of freedom. The perfect adjustment will probably not be found ; but in the long search man has learned four basic maxims. To whatever extent they are all four observed, the effort at self-government is likely to be a success.

The first maxim is Lord Acton's " all power corrupts, and absolute power corrupts absolutely." The second is implied in the question considered so often in these pages, Who is to watch the watchmen ? The third is a maxim of daily life as well as of government : What is everybody's business is nobody's business. The fourth is stated in *The Federalist* : " Power over a man's support is power over his will."

The first three points sound obvious ; yet they have always proved complex and difficult to apply. The last point seemed clear and basic to our forefathers ; yet it is so generally misunderstood to-day that we are urged by many of our most liberal and humane thinkers to adopt a system of government and economics which contradicts it.

The Federalist meant that whenever a citizen, a faction of citizens, or a government has complete power over a man's support, that man can no longer exercise his freedom of thought or of will. If a man is a slave economically, he will become a slave spiritually as well, except in the unlikely event that he is a saint. And a society of saints could dispense with government altogether.

As we have said before, in a time of widespread unemployment an unorganised factory hand, with no union to support him, cannot be expected to think and

speak freely on controversial subjects, especially if he works for a boss who is dogmatic and intolerant. It does the worker no good to know that the courts would sustain his right to free speech. The courts can do nothing for him if he is discharged on a trumped-up charge. So if he is wise he will keep his mouth shut. Power over his support is power over his will.

" If every man has a right to political power," said Cromwell's son-in-law Ireton to the Commonwealth Parliament, " every man must have a right to property."

John Adams compressed the maxim into three words : " Powers follows property." Those who own no part of the means of production, who are economically unfree, who cannot stand on their own feet and look after themselves and their families if they are discharged, are always subject to having their wills coerced. They have no effective power except the final power of revolution. They have been denied the blessings of liberty even if the state gives them a dole or a job after they have become unemployed ; for it is a delusion to suppose that the state is more gentle a master than the private employer, if the state gets complete control over a man's support. The delusion, which is widespread in our world, comes from ignoring the first of the maxims : All power corrupts, and absolute power corrupts absolutely.

There is no power more absolute than the power of a state which has become the universal master. If the state provides all the jobs the state will also in the end provide all the ideas. In a truly communist or socialist society, the state has power over all men's support and therefore over all men's wills. All the absolutisms of to-day, like those of the past, testify to the wisdom of Lord Acton's sentence. Man is not made to have absolute control over his fellows. When he does, he comes to think of them as means for the carrying-out of his own inadequate plans, not as ends to be respected

and protected and dignified. Even if the plans of the despot are benevolent, he must use coercion in order to get them accepted by the unconsulted millions. Left to himself man never behaves exactly the way the planner predicted. Man is ungrateful and cantankerous and a thorn in the side of the bureaucrat. When the thorn becomes too annoying, and the bureaucrat has the power of life and death, ghastly measures such as the Russian state-made famine result.

It is such considerations which made our fathers anxious to preserve the widespread ownership of productive property. " Power follows property." If power was to reside in the people, there might be as many families as possible owning the sort of property with which they can look after themselves, thus making themselves free. The simplest example of such property is that of the freehold farm. Hence the emphasis, by so many of our leading democrats for so many decades, on preserving the independent farmer as the backbone of democracy.

When our forefathers said that liberty consists of the Bill of Rights on the one hand and security on the other, they did not mean state-made security. They meant the security of the family which owns productive property. Not pieces of paper, but land on which food can be grown, a shop in which goods can be manufactured, a store or a boat or a stage-coach by means of which produce can be distributed. Much of our father's confidence in the future of free institutions came from their faith that the possibilities for families to earn their own security were ample within their territorial boundaries. Because of changes in the system of production and distribution which the eighteenth century could not foresee, because of a more rapid expansion of population than anyone dreamed, combined with a temporary stagnation of business opportunity, we have recently lived through a period when many millions of

our citizens could not make their own security. As an emergency measure we turned to state-made security. It was proper to do so ; but it was not proper to think and talk as if this were a solution to the problem.

Great public works, carried forward by the state in periods when unemployment in private business is high, may become a permanent part of our economy. They may prove a blessing, and a solution to the problem of unemployment. They will never prove a solution to the problem of liberty. The men who work for the state can only remain free if a determining majority of their fellow-citizens do not work for the state, but keep their own power over their own will in the only way it can be kept : by earning their own security. The citizens who work for themselves can see to it that the citizens who work for the state are not deprived of free will. They can guard the guardians ; they can watch the watchmen. But if the time comes when the big majority, or the whole, is working for the state, liberty is dead.

The fact that power follows property, that power over a man's support is power over his will, presents our modern world with one of its ugliest problems. In our industrial society fewer and fewer people own and control productive property, the sort of property that makes it possible for a man to provide his own security. Yet the old rules hold ; when a man becomes economically dependent he becomes spiritually dependent as well. We have tried to meet the problem by evasion. One group has run away from the facts of life by pretending that the state can provide security for everyone without providing slavery at the same time. Another group has run away from the facts of life by pretending that the problems of insecurity and unemployment are greatly exaggerated and that if the state would mind its own business everything would work out nicely.

The first step toward a solution is to admit the truth.

First, the rule laid down in *The Federalist* cannot be ignored without the loss of liberty. The extent to which we have ignored it has already led to much government corruption, and has made it possible for good men to say with a straight face that we can set ourselves free by handing ourselves helpless into the power of an all-controlling state. Second, the self-created security which our forefathers thought would always be available, and which brings true independence in its train, has not been possible for many millions for many years. Once we have the courage to face these truths we can start to find an answer. The labour unions and some of the courts have made a beginning, in seeking to redefine a man's relationship to his job in terms of a property relationship. Government agencies such as the Tennessee Valley Authority * have made a beginning, in seeking to create conditions which foster the growth of private ownership in farms, stores, and small machine shops. (And many private agencies are at work preaching the spread of such property and trying to facilitate it.) The co-operative movement in its many forms has made a beginning in developing a new type of property ownership in which the little man can participate creatively.

If in some such ways we can provide for a wide extension of the benefits of property ownership, we can turn without fear to government planning of public works to take up the slack of unemployment. Such planning can provide greater stability and greater justice, so long as the overwhelming majority of the citizens are outside of the government-run economy and are free to keep an eye on the governors.

We cannot discuss realistically the problems of free

* The Tennessee River flows through parts of seven states. By building a series of power dams the Federal government has provided the entire area with cheap water transportation, cheap electric power, and other substantial benefits.

government without coming to terms with this relation between property and freedom. In the course of time we may devise ways of preserving the political freedom of men who are economically unfree ; but if we are to think sensibly about government we must remember that no such ways have yet been found. Whoever controls a man's power to make a living controls that man politically. A man can only be free politically if he has property rights in a job or in some form of control over part of the means of production. Any political system, claiming to create freedom, which ignores this fact is based on false pretences. It will either collapse in efficiency, or it will move inexorably toward a system of slavery.

The maxim that what is everybody's business is nobody's business is a more homely way of stating what Professor Ford said in the sentence quoted above : "Whatever assigns to people power they are unable to wield, in effect it takes it away from them." The story of American government can almost be told in terms of the attempt to reconcile this truth with the truth embodied in the maxim that all power corrupts.

As we have seen, one way of dealing with the fact that all power corrupts is to diminish as far as possible the power which is entrusted to any single officer or agency. This means the separation of the powers of government into many parts and the allocation of each part to a separate agency.

The result is the creation of a paradise for those who would evade responsibility. When power is parcelled out among many, and when all the wielders of the various little powers are elected by the public, who is to blame when things go wrong ? Because the question can never be satisfactorily answered, the blame tends to fall upon the system itself.

The other way to deal with the knowledge that all power corrupts is not to diminish the power, but to

concentrate the responsibility. "The true distinction between despotism and constitutional government," writes Professor Ford, "does not lie in limitation of power but in the existence of means for making power accountable for its behaviour. Ability to act promptly and energetically in the presence of emergency is of such paramount importance that every other consideration should give way to it, and does in fact give way to it. Any constitution of government which disregards that principle is doomed."

HERBERT AGAR, *A Time for Greatness* (1943)

THE NEW FAITH

ANY attempt at the present time to forecast the moral foundations and assumptions of the coming order may well seem both ineffectual and presumptuous, especially to the multitude of those who, through preoccupation with current tasks, through indifference, or—most frequent of all—through a sense of helplessness, are content to turn a blind eye on the future. But anyone who has an active faith or hope in the future of our civilisation will find it hard to abstain from such speculation, however conscious he may be of its hazards and uncertainties. In this spirit, it is proposed here to attempt in outline some estimate of the conditions which must be fulfilled by any movement or creed likely to make a widespread appeal to the contemporary world and to provide the sense of a common purpose essential to the survival of civilisation.

The new faith must speak in positive rather than in negative terms, striving for the achievement of good rather than for the avoidance or suppression of evil. It was a sinister fact, significant of the frustration of the epoch, that the great aims of the past twenty years expressed themselves in terms either of a return to the past or of

mere avoidance : to prevent war, to reduce armaments, to remove trade barriers, to cure unemployment. Even to-day those who perceive the inadequacy of the negative war aim of destroying Hitler tend to define their purpose in the almost equally negative word " security," social and international. President Roosevelt's promulgation of the " four freedoms " contained sound doctrine. But it would have been better if it had demanded not the liberation of mankind from evils, but the pursuit of positive goods. To prevent war we must create a new order ; to reduce armaments we must build a common pool of armaments for a common purpose ; to remove trade barriers we must plan international trade ; to cure unemployment we must organise men for the fulfilment of urgent and necessary tasks. We shall fail if we merely entrench ourselves to protect what we possess, or what we possessed in the past. A positive and constructive programme is the first condition of any effective moral purpose.

Champions of one class have often appeared from the ranks of another ; and it would be foolish to hazard any guess as to the social stratum from which the new leadership will be drawn. But whoever may be its prophets, the new faith will make its appeal predominantly to the " little man "—to the unorganised consumer rather than to the organised producer, to the individual of small possessions and no importance who feels himself helpless in the midst of great impersonal organisations dominating the life of the community. It will therefore proclaim its independence of these organisations—of big business, of trade unions and of the great political parties—and aim at the emancipation of society from the vested interests which they have come to represent. The ascendancy of big organisations is a prominent and unhealthy feature of modern life. Even where they purport to be representative, they have acquired a life and interests of their own, and the individual no longer

feels himself represented by them. The need for organisation may well be greater than ever. But the world is in a reckless mood, and will respond eagerly to an appeal to tear down existing organisations, to do away with their abuses and to start again. The new faith must restore to the individual, to the "little man," his sense of being the constituent member of the community, and thus make democracy once more a reality.

The new faith must address itself first of all to the solution of the economic problem; for the running sores of our present social order—unemployment and inequality—are predominantly economic. This does not necessarily mean that the new faith will express itself in economic terms. Indeed it has been shown that the economic problem cannot be solved except through the common recognition of a new moral purpose. But this fact cannot be used to support the argument that the economic problem is merely incidental and subsidiary. Man does not live by bread alone. But without it he does not live at all; and there is a real sense in which bread is the first essential element of his moral as well as of his physical welfare. The immediate impulses which lead to war and other social disorders may, as has often been said, be psychological and moral: envy, fear, injured pride, thwarted ambition. But there is ample evidence to show that these impulses flourish in a soil of economic maladjustment. There is nothing paradoxical or one-sided in the view that the building of a new economic order is the most urgent task which confronts us after the war.

The new faith will approach the unemployment problem, not by way of prevention, but by way of the creation of needs vast enough to make a full call on our resources, and morally imperative enough to command the necessary measure of sacrifice to supply them. All frontal attacks on the problem of unemployment have failed, and are bound to fail, because the essence of

that problem is not to create work for its own sake—a process economically easy but morally impracticable—but to create work destined to fulfil a purpose felt by the community to be worthy of self-sacrifice. Once this purpose is recognised—as happens in the case of war—the problem of unemployment is automatically solved, or is reduced to the proportions of a technical problem of the mobility of labour. The new faith must solve the unemployment problem by providing a moral purpose as potent as was religion in the Middle Ages or as is war to-day.

The new faith will have to revive and renew the ideal of equality which, however imperfectly realised, lies at the root both of Christianity and of Communism, and which was deliberately rejected by the capitalist system.* Of the vitality of the modern demand for equality there is no doubt whatever. It has appeared in the form of the demand for equality between individuals, between classes, between nations. It has been at the root of every recent revolution and of most recent wars. Nor is it a demand which could be satisfied by the formal political or legal equality of the nineteenth century. It is specifically a demand for economic equality—for equality of economic resources or equality of economic opportunity. This problem, too, requires, in the first instance, a positive and constructive rather than a purely negative and destructive programme. Our deliberate purpose should be to build up equality rather than to break down inequality. Assuming that the process of equalisation can be achieved by gradual rather than by violent methods, the first step is to secure the distribution to all of what may, on a generous interpretation, be called the necessaries of life; and since, in the area with which we are most likely to be concerned,

* "The principle of accumulation based on inequality was a vital part of the pre-war order of society" (J. M. Keynes, *The Economic Consequences of the Peace*).

this should not be difficult of attainment, the distribution of the necessaries of life may be supplemented by the distribution of many of the amenities and luxuries. It would, however, be idle to suppose that the whole process can be confined to the positive and constructive. Disproportionately great wealth has become in itself an offence to the public conscience ; and on this ground, as well as on grounds of practical necessity, there will inevitably be a levelling down as well as a levelling up. The degree of sacrifice and the numbers from whom it will be required depend on too many circumstances to be measured in advance. But they must, at any rate at the outset, be substantial, and it would be unwise to belittle them. Some may find most irksome not the material sacrifice, but the sacrifice of freedom involved in the probably inevitable rationing and standardisation of staple products. The luxury of the exclusive enjoyment by a limited class of things not accessible to the many has played a considerable part in our civilisation. Since no approach to equality will ever be carried far enough to bring about a complete equalisation of the rewards of labour, this luxury will doubtless persist, though the individuals enjoying it may change. But it will have to be enjoyed in the sphere of non-essentials rather than of essentials.

The new faith, reversing the nineteenth-century trend, will lay more stress on obligations than on rights, on services to be rendered to the community rather than on benefits to be drawn from it. The former emphasis on the rights of man was proper to an age when the social structure suffered from excessive rigidity, and it was necessary to break down artificial barriers standing in the way of development and expansion. This condition is no longer present. The most serious danger confronting society at this time is that individualism, masquerading in the guise of the rights of man, may be carried to a point fatal to social cohesion. The catch-

word that " the state was made for man, not man for the state," legitimate as a protest against the tyranny of totalitarianism, must not be used to cover a denial of social obligation. Among the formerly recognised rights of man there is little doubt that the rights of property have become in recent times a disintegrating factor. Some democrats have taken the same view of the right of free speech when invoked on behalf of the enemies of democracy. Many observers have attributed the growing danger of disintegration to the industrial system. " An industrial world cannot maintain itself against internal disruptive forces without a great deal more organisation than we have at present." * " Modern industrial society suffers from a dangerous lack of social integration, and certain characteristics of industrial activity are likely to increase this condition unless steps be taken to prevent it." † It may be suggested that the most fundamental factor jeopardising social cohesion is the cessation of the apparently automatic and almost effortless expansion which was characteristic of the nineteenth century and which made possible the recognition of the profit motive as a moral force. The unquestioned belief in progress provided not only a sense of common purpose, but a certain prospect of increasing advantages to be shared in common. Even in terms of taxation the benefits of social order were extraordinarily cheap. The nineteenth century became accustomed to think far more of the claims of the individual on society than of the claims of society on the individual. Rights were more important than obligations, benefits more conspicuous than services, in the social balance-sheet. Now that we have fallen on less prosperous days, the perpetuation of this point of view threatens the social order with bankruptcy. If society is not to break up, we shall have for a time to contribute more to maintain it and

* B. Russell, *Icarus, or The Future of Science.*
† T. N. Whitehead, *Leadership in a Free Society.*

be content to draw less benefits from it.

Just as the social problem is complicated by the one-sided emphasis of the past on the rights rather than on the obligations of the individual, so the international problem is complicated by an exclusive recognition of the rights of nations. The new faith will have to provide for a readjustment of this attitude. Here, too, the approach should be positive and constructive. It is less important to dwell on the evils of sovereignty than on the building up of a wider form of international community. The task will be infinitely harder than the task of building up social cohesion within the nation, both because there is as yet hardly any basis of international loyalty or consciousness on which to build, and because governments, the most powerful and closely-knit forms of organisation yet invented, have a vested interest in the old order. It can hardly be achieved except on the basis of the principles already laid down ; and it will not be achieved without strong leadership. The war, by overriding national frontiers and national distinctions, and introducing new forms of co-operation between those engaged together in it, has laid foundations on which the new faith can build. Whether this faith can achieve sufficient vitality to seize the opportunity remains an open question. On the answer appears to depend the future prospect of any international order worth the name.

Finally, the new faith must reopen the classical debate between liberty and authority and achieve a new synthesis. It will perhaps need to correct the one-sided nineteenth-century emphasis on liberty corresponding to the one-sided nineteenth-century emphasis on rights. This is especially true of the international order, where the collapse of authority—represented in the nineteenth century by British sea-power and by the Concert of Europe—has been complete. But, in general, the most important task is to reinterpret the concepts of liberty

and the authority in the social and economic sphere. The traditional nineteenth-century system provided for the exercise of authority by the controllers of capital. This authority is now passing—after a transitional stage of uneasy compromise between capital and trade-unionism—to the state. The transfer of authority is not unnaturally resented by those who once exercised it as a deprivation of their liberty ; and this explains why liberty has readily become in recent times a conservative and even a reactionary slogan. But it is not so resented by the masses, who do not necessarily see in the increased authority of the state a loss of liberty for themselves. It is highly significant of the trend of British opinion since the war that the Government has been criticised far less for its encroachments on individual liberty (which have in fact been enormous) than for its failure to exercise in full the almost unlimited authority conferred on it by the Emergency Powers Act. Popular authority as much as popular liberty will be the keynote of the new faith.

There is all the difference in the world between an examination of the conditions which a new faith and a new moral purpose must fulfil and an assurance that this faith and this purpose will come to birth. They cannot be generated by an intellectual process, which can do no more than demonstrate the need for them if civilisation is to be saved. The war has brought the final proof of the bankruptcy of the political, economic, and moral system which did duty in the prosperous days of the nineteenth century. It has also provided —at any rate for the British people and for the whole English-speaking world—a moral purpose which has revived the national will, increased the sense of cohesion and mutual obligation, bred a salutary realisation of the gravity of the crisis, and at the same time created the hope and the opportunity of a new ordering of human affairs. But it is essential to recognise in all humility

that this purpose is the product of war, that it is directly inspired by the needs of war, and that it is animated by the potent forces of a common enmity and a common fear. There is no guarantee that out of it will grow a more permanent purpose to create in time of peace a new world based on new principles and new social philosophy. All that can be said with certainty is that the war will not leave us where it found us. It will be the prelude either to the fairly rapid decay—or perhaps the violent overthrow—of the civilisation which has prevailed in Europe for the past 300 years or else to a decisive turning-point and new birth. It is no obstacle that such a new birth may imply a revision of some of our estimates of human nature ; for as has been truly said, revolutions " exploit another part of human nature hitherto neglected." * Whether the revolution through which we are passing will achieve this result, we cannot yet tell. But there is no excuse for mistaking the character of the issue. The crisis cannot be explained—and much less solved—in constitutional, or even in economic, terms. The fundamental issue is moral.

E. H. CARR, *Conditions of Peace* (1942)

EDUCATION FOR CITIZENSHIP

GREECE is the mother of education for citizenship, as of so much else. Ancient Sparta devised the most complete and ruthless discipline ever conceived for turning men into citizens and soldiers, but Athens too had her more liberal methods of civic education, and though Pericles says that she did not rely on " rigorous training " and " state-made courage," he claims that his countrymen attend both to public and private duties and do not allow absorption in their own business to interfere with knowledge of the state's affairs." If we were asked

* E. Rosenstock-Huessy, *Out of Revolution.*

what training in citizenship Britain gives, we might hesitate to answer. In the last century, if the idea occurred to anyone, it interested very few : there is one reference to it in the index of an important book like Adams's *Evolution of Educational Theory* and none in Norwood's *English Tradition in England* or Nunn's *Education ; its Data and First Principles.* The foundation of the Association for Education in Citizenship in 1935 is perhaps the first sign of recognition, not only that there is such a subject but that it is very important.

Citizenship goes far beyond voting, paying taxes, sitting on a jury, and the other duties expected by a nation from its members. Properly conceived, it involves all a man's actions which touch his fellow-citizens, and affect the health and well-being of the State ; it is almost co-extensive with his duty to his neighbour. It includes everything which the law requires but also many duties about which it is silent and which are left to the individual conscience. It is not passive, not mere abstention from uncivic conduct. It is active. " We regard the man who holds aloof from public duties not as ' quiet ' but as useless." " Public life is a situation of power and energy ; he trespasses against his duty who sleeps upon his watch as well as he that goes over to the enemy." The ideal state is one where every citizen is determined to be a part of the community, to share its burdens, to put its interest before his own, to sacrifice, if need be, his own wishes, convenience, time, and money to it. It is a machine of which no part is idle or inefficient, none rusted, broken or ill-fitting, in which each pulley and cog takes up its full share of the load, and plays its part in the swift and smooth running of the whole. A man who evades his taxes is, so far, a bad citizen ; but so is one who, in giving a vote for Parliament, thinks only of his private interests, or is too indifferent or lazy to vote at all ; so is the bad employer whose treatment of his employees

is not only a breach of the moral law, but adds to the social problems of the country ; so are profiteers and the traders and clients of the " black market " ; so are workmen who strike for some private interest when the existence of their country is at stake ; so is the man who would be useful in local government but evades the burden, not because he cannot, but because he will not, spare the time.

There is plenty of bad citizenship in Britain, but there is probably more good citizenship here than in any other country, though it is not always labelled by that name. It appears in the numberless gifts and legacies for charitable and kindred objects, and in the uncounted instances where private effort performs duties of public interest, ranging from the Zoological Society to the care of the blind, from the Life-Boat Institution to the Scout Movement, from the preservation of scenery and historic buildings to the work of the Motoring Associations ; look through the twenty-eight pages of Societies and Institutions in *Whitaker's Almanac* if you wish to see how many national activities depend on individual enterprise. There are idle rich in Britain, but they are fewer than the less conspicuous class of wealthy or well-to-do persons who might live wholly selfish lives but who give time and money without stint to public service. A nation where all the universities have been created by private initiative, where municipal government and the administration of justice is largely carried on by unpaid work, where nearly half of the hospitals are managed and financed by private enterprise, where the Co-operative Movement was organised, where a third of the peace-time army is recruited by civilians giving up their leisure time to military training, where the Home Guard immediately created itself in response to public need, is not wanting in the spirit of good citizenship.

This spirit is the blood in a country's veins ; where

it is pure and flows strongly, national life will be healthy and vigorous, where it is thin or tainted, anaemia will be present and may pass into death. Important at any moment, it is most of all now, for we shall hardly survive the tensions of social change, certainly we shall not survive as a democracy, unless we have the community sense which will hold us together and enable us to move as a whole.

How can the spirit of citizenship be created or developed? How are good citizens made? This is part of the obscure and important question, where do men get their virtues? From what deep sources are drawn the courage and sacrifice shown in the air, by sea, on land? Where do the inhabitants of, for instance Bermondsey or Bow, many of them living in intolerable surroundings, learn the qualities which enable them in peace to be decent, kindly people, and in war cheerfully to face the ruin of their homes and death from the air? How are such virtues to be preserved and extended? And, on the other hand, whence come our weaknesses and how shall we cure them—commercialism that sells beauty and debases standards for money, profiteering in every class and rank, partisanship and reckless statements in politics and outside it, the intellectual's betrayal of truth? Here are problems deserving inquiry more than many sociological studies, and very relevant to our future.

Citizens are made, not born; though men may be social animals, they are very apt to regard society as made for them, and as far as possible to use it for their own ends. It is an individual, not a member of a community, that issues from the womb, though these individuals have to live in the State and must learn how to do it. All human beings have the capacity to be citizens, but mere capacity is not enough; it needs developing and training. The vocational and personal sides of education will help little here. Men must learn

how to earn their living ; they must have the chance of developing body, mind, and character to their full capacity. But earning a living and developing a personality are private matters, a concern of the individual ; they will make a man a more useful member of the State but not necessarily a better citizen ; they are no guarantee that he will serve it, study its interests, carry out his duties to it. Indeed if over-emphasised they may—and obviously often do—make him selfish and indifferent to the common good. Vocational and personal training are dangerously incomplete without the discipline which teaches men how to play their part in the State and makes them wish to do it. Education is a trinity, and one of its members is training in citizenship.

There are three elements in this training, of which the first and least important is teaching people the duties of a citizen and how to perform them. Mention education for citizenship and the word " civics " will probably rise into the mind ; instruction on such subjects as the functions and institutions of government, both local and central, including Education, Public Health, Justice, Police, the Post Office, and the Defence Services, and the everyday work of local councils and of Parliament.

Eric Gill says in his *Autobiography* : " The whole of my education was simply learning things out of little books and being able to remember enough to answer questions." It is a common form of education. He continues : " We are educated by the doing not by the learning and that is the whole secret of education, whether in schools or in workshops or in life." These warnings should be remembered in considering the teaching of citizenship. At school instruction of the kind proposed is apt to be little beyond " learning things out of little books " ; at that stage there is no opportunity for " doing." The subject has a specious attraction, and is sometimes described as up-to-date, realistic,

and related to the actual needs and life of the pupil. But though apparently practical, it is in fact purely academic. It consists almost entirely in imparting facts which have no relation to the actual life of the pupil, knowledge of which he can make no immediate use. The fact that he is being educated does not mean that he will find the educational system of the country interesting; he takes no part in the work of local councils and of Parliament; and if he does not happen to be criminal, he will have no first-hand experience of either justice or the police. Unless he has a retentive memory or lively imagination, the facts learnt will fall on his mind like dust, and, like dust, will in a few months or less be swept from it by succeeding impressions, leaving perhaps a few grains of knowledge behind. The clever pupil will retain more, but is likely to derive from his studies little beyond some up-to-date knowledge of facts, a vague plausibility about social questions, and a misleading belief that he understands them. For politics and government are essentially practical subjects, wearing very different faces in books and in life. Our views on them are of small value unless we have seen them at first-hand, and a schoolboy has not seen them at first-hand.

We must therefore not expect much from this form of instruction in citizenship. A certain amount of it is useful. In the hands of an inspired teacher, "civics," like any other subject, can become a means of real education. But citizenship is better taught in a broader way and through the normal subjects of the school curriculum. The most fruitful part of "civics" in the narrower sense will probably be such things as visits to town councils, law courts, Parliament, factories, a slum, a distressed area, a housing estate, etc.—when possible, abroad as well as at home. This will not impart knowledge so much as strike the imagination by a glimpse into the real thing. It is not more than a glimpse;

such visits show the outside rather than the inside of problems, their existence, not their infinitely complicated conditions, but they leave in most minds a picture, a sense of real problems waiting to be solved such as all the "little books" on civics will fail to give.

But, it will be said, the citizen needs more than that: he ought to know something about the machinery of government and the fabric of his civilisation, and at present we fail to give him this. Certainly: but school is not the time or place to give it. It should be given when it can be used, when men and women are citizens, with votes for Parliament and local government, which cannot be given effectively without knowledge and, if given effectively, can change the conditions of their life. That is the time when the knowledge is needed, is welcomed—and is not available. "We have been told," says the report quoted above, "that in Senior Schools it is the citizenship lesson in which the parents show most interest and themselves provide information and send up questions for answer." Those words indicate our neglected opportunity. Here are adults eager to learn about citizenship, unprovided with natural means to do so, and obtaining some knowledge indirectly through the lessons given to their children. But the senior school is not the best medium for teaching citizenship to men and women, nor have all adults access to it. What lovers of paradox we British are! Youth studies but cannot act; the adult must act, and has no opportunity of study; and we accept the divorce complacently. But action and thought, living and learning naturally belong together and should go hand in hand. Instruction in civics at school, if you will. But when the children are adults and have votes, let such instruction be available so that their votes can be used with intelligence. Our local government is not, in every city, the most successful of our institutions. It might be improved if every elector had an opportunity of learning

something about its nature and scope, and if perhaps the newly elected City or County Councillor, instead of being thrown headlong into his duties, to learn slowly what the sea is like by swimming in it, was given some instruction in the character and variety of this vast ocean ; if, in fact, we did for our municipal rulers as much as we do for an A.R.P. Warden ; for local government is as complicated and important as fire-fighting. But this is a matter for Adult Education, hitherto so neglected in this country. At present we either fail to give our citizens the knowledge which citizens need, or push into the schools as much of it as we can manage, upsetting their curriculum and giving it at an age when it cannot be digested. We act like people who should try to give their children in a week all the food they require for a year ; a method which might seem to save time and trouble, but would not improve digestion, efficiency, or health. Some day, no doubt, we shall abandon this practice and give everyone a chance of thinking about life when he is facing it and about its problems when he has to solve them. When that day comes, we shall stop one of the chief sources of educational waste and inefficiency, and make the greatest advance in our history towards the creation of an educated democracy.

But even when " civics " is taught and taught at the right age, our task is only beginning. Knowledge of political institutions, interest in social problems and current events will not of themselves make good citizens. Pascal says, " How far it is from the knowledge to the love of God ! " We may say, " How far it is from civics to citizenship ! " We must not make the error of Socrates and think that knowledge is virtue, or that duties are performed because they are known. To study the outlines of the government of the country, to visit city councils and law courts, to have an acquaintance

with economics, public affairs, and current events—all this barely touches the problem. Citizenship is not information or intellectual interest, though these are part of it; it is conduct not theory, action not knowledge, and a man may be familiar with the contents of every book on the social sciences without being a good citizen.

In citizenship, as in so many provinces in life, we provide means, teach their use, but give no sense of ends; tell people how to reach the goal but leave them ignorant and doubtful of the goal itself; like persons going on a holiday, who pack their clothes, collect journey money, food, golf clubs, and tennis rackets, bring the car to the door or arrange transport to the station, and then discover that they have never decided where to go. That is impossible with holidays but common with life: and training for citizenship may include "the Monarchy and what it stands for; the Houses of Parliament and their work, to include a short history; General Elections; the Public Services—the Army, Navy, Air Force, Police, Post Office, Ministry of Labour," and much else, yet fail to give any vision of what the State should be.

Without such a vision, the knowledge may be misused or used blindly, the means wasted for lack of the right end. Not only so, but the chief impulse to action is lost. Here, as in every sphere of life, knowledge and intellectual equipment, without an ideal to drive them, are machinery without power, and there are few more melancholy or more common sights than admirable social machinery which cannot get up enough steam to work it. The sight of an inspiring goal gives the desire to reach it, and men devise means when they are mastered by the passion for an end. Aristotle thought that God was the source of motion in the world, not by any direct intervention but by the response of human beings to the vision of Himself. "If God is always in that good state in which we sometimes are, this compels

our admiration ; and if in a better state, this compels it still more. And God *is* in a better state. . . . So he produces motion by the love he excites. . . . On this principle depend the heavens and the world of nature." Something of the sort is true of those visions of good which are called ideals. They have been the great sources of motion in the world, created its religious movements, made or helped its revolutions, and inspired its greatest men. Such visions " compel our admiration and move us by the love they excite."

SIR RICHARD LIVINGSTONE,
Education for a World Adrift (1943)

THE NATURAL ORDER AND THE PRIORITY OF PRINCIPLES

ONE of our great needs is some general system of thought or map of the intellectual world by which we may be helped to judge which of several principles should prevail when it is impossible to give full expression to all. Incidentally, it may be worth while to observe that our duty in this field is seldom to adopt one principle and see it through. Controversialists often demand this in the name of logic or of consistency. But the first requirement of a sane logic is that we should consider what principles are involved and how we may do the fullest justice to them all. Thus, if we say that we stand for equality of opportunity, someone is almost sure to say, " Very well ; but do be consistent and abolish the family." Of course it is true that so long as children are brought up in their own families, they will not have equal opportunities, for some families will stimulate and others will suffocate their intellectual or other interests. But equality of opportunity is only one among several principles that should find expression in the training of young citizens ; and the real problem

is to ascertain, as far as may be, all the principles and then combine them as fully as possible.

It is possible that my previous discussion of Christian social principles may be criticised for omitting the two most important of all—Justice and Love. But these are principles of another order. They have their place in this field chiefly as regulating those which I have already described. It is axiomatic that Love should be the predominant Christian impulse, and that the primary form of Love in social organisation is Justice. No doubt this latter truth is sometimes ignored by those who wish to apply Love, so to speak, wholesale and direct. But it is hard to see how this works out. Imagine a Trade Union Committee negotiating with an Employers' Federation in an industrial crisis on the verge of a strike or lock-out. This Committee is to be actuated by love. Oh, yes, by all means—but towards whom? Are they to love the workers or the employers? Of course—both. But then that will not help them much to determine what terms ought to be either proposed or accepted. The fact is that these problems arise only so far as perfect love is not operative. That is a reason why both sides should confess their sin, but still the problem is unsolved. Love, in fact, finds its primary expression through Justice—which in the field of industrial disputes means in practice that each side should state its own case as strongly as it can before the most impartial tribunal available, with determination to accept the award of that tribunal. At least that puts the two parties on a level, and is to that extent in accord with the command, "Thou shalt love thy neighbour as thyself."

But as Love can find expression only through Justice, so Justice is incapable of any definition which renders it applicable to actual circumstances by any rule of thumb. Perhaps the old formula that Justice consists in rendering to every one his due is as good as any, though readers

of Plato's *Republic* will recall the curious results which skilful dialectic can extract from it. But what is due to a man? How do we judge? In time of war the cost of living rises; there is a demand for a rise in wages to meet this. How do we decide whether that demand is just, and if it is how great the rise should be? We try to apply the principle of equality of sacrifice; but how do we measure sacrifice? One man may lose without feeling it a sum of which the loss would be crippling to another. And numerical proportion, though better than numerical equality, is still unsatisfactory. There seems no way except to put the problem before a fair-minded man who is able to see all round the question, and then trust his judgment, which will be one of feeling—of course, the feeling of a disciplined mind—rather than of calculation.

These two great principles then—Love and Justice—must be rather regulative of our application of other principles than taken as immediate guides to social policy. But they must constantly be borne in mind as checks upon policy. As we must use our wider loyalties to check the narrower, so we must use these highest principles of all to check our application of the lower. Freedom must not be pursued in ways which offend against Love, nor must service be demanded, or fellowship in any actual instance promoted, in ways that offend against Justice.

In earlier times Christian thinkers made great use of the notion of Natural Law. They did not mean by this a generalisation from a large number of observed phenomena, which is what a modern scientist means; they meant the proper function of a human activity as apprehended by a consideration of its own nature. In practice the Natural Order or Natural Law is discovered partly by observing the generally accepted standards of judgment and partly by consideration of the proper functions of whatever is the subject of inquiry. This is

a task for human reason ; but so far as reason enables us to reach the truth about anything in its own essence and in its relationships, it enables us to see it as it is in the mind of God. Thus it is a Natural, not a Supernatural, Order with which we are concerned ; but as God is the Creator, this Natural Order is His order and its law is His law.

Thus, in the economic field, the reason why goods are produced is that men may satisfy their needs by consuming those goods. Production by its own natural law exists for consumption. If, then, a system comes into being in which production is regulated more by the profit obtainable for the producer than by the needs of the consumer, that system is defying the Natural Law or Natural Order.

There is nothing wrong about profits as such. It has always been recognised that both the producer and the trader are entitled to a profit as their own means of livelihood, which they have earned by their service to the community. Further, there can be no profit except so far as the needs of consumers are being met. But it is possible none the less for these two to get into the wrong order, so that the consumer is treated, not as the person whose interest is the true end of the whole process, but only as an indispensable condition of success in an essentially profit-seeking enterprise.

Now if the economic process is isolated, this may not make much difference. It is quite conceivable that a system which falls under censure for its breach of the " Natural Order " should none the less be extremely effective in providing a high standard of life for a very large number of people. Whether or not our existing form of Capitalism in Great Britain offends against " Natural Law," it has certainly given to the mass of the people a higher standard of life—a larger enjoyment of material goods—than any previous system. Moreover, it seems nearly certain that no other system would

have developed so rapidly or so far the new powers conferred by modern science. If we treat the economic activity of man as an independent sphere, to be judged only by its own canons of effectiveness in the production and distribution of goods, criticism based on any conception of a Natural Order or Natural Law will seem very academic and remote.

No doubt there are signs that the system may be about to fail at the point of distribution; we shall return to that in a further essay when we use our general understanding of Social Order as a critique by which to estimate our own social order. And if it be true that the system is moving by the development of its own inherent logic towards its own breakdown, that will be strong evidence both that there is a Natural Order and that our system in part violates it.

But the believer in Natural Order has another shot in his locker. For he refuses to admit that the economic activity of man may be thus isolated and judged by its own canons alone. Certainly there is a real technical autonomy in this as in every other department, and neither theology nor ethics can determine the probable economic effects of any proposed economic reform—as for example whether in a given instance the imposition of a tariff will raise prices. In the region of causes and effects, economic science is autonomous. But according to Natural Law the economic process is not at an end in itself; it and all its parts are primarily a means to something that is much more than economic—the life of man.

Now man is a child of God, destined for eternal fellowship with Him, though a sinful child who in many ways frustrates his own destiny. Further, as children of God, men and women are members of one family, and their true development is that of an ever richer personal experience in an even wider and deeper fellowship. If, then, an economic system is abundantly effective in

producing and distributing material goods, but creates or intensifies divisions and hostilities between men, that system is condemned, not on economic but on moral grounds; not because it fails to deliver the goods, but because it is a source of wrong personal relationships.

The old conception of Natural Law has lost much of its appeal for us through the fact that it was worked out in special relation to a feudal and peasant society. The forms of that society are vanished; but it embodied some important principles, of which perhaps the chief is the close association of status, and of wealth as conferring status, with social function. Each man had his place in the scheme—whether this was the bare security (with very little freedom) of the serf, or the power enjoyed by the baron in virtue of service rendered or liable to be claimed. There was no recognition of irresponsible power, such as may now be wielded by the inheritors of great wealth, either in land or in industrial shares.* But the basic principles were concealed behind their temporary applications, so when urban civilisation began to rival the old peasant type and then to supersede it, and when under its pressure Calvin granted a qualified indulgence to usury, the old principles were rapidly forgotten, and we are now faced with the difficulty of re-asserting them in a world developed in almost complete independence of them.

It is wholesome to go back to this conception of Natural Law because it holds together two aspects of truth which it is not easy to hold in combination—the ideal and the practical. We tend to follow one or other of two lines: either we start from a purely ideal conception, and then we bleat fatuously about love; or else we start from the world as it is with the hope of remedying an abuse here or there, and then we have no general direction or criterion of progress. The con-

* Readers of *The Crowthers of Bankdam* will recall the conduct of the senior branch of that family.

ception of Natural Law will help us to frame a conception of the right or ideal relation between the various activities of men and of the men engaged in them. For consideration of the status of an activity in the light of its social function keeps both the ideal and the practical full in view.

Thus we shall recognise at once and fully both the truth that production exists for consumption, and the other truth that unless he makes a profit the producer cannot survive. (There may be commodities which it is desirable on social grounds to provide at cost price or even less ; if so, the State should subsidise them, whether it takes over the ownership of them or not. It might be profitable to the community as a whole to supply transport of certain kinds of goods at a very low rate—*e.g.* perishable fruits in their season. But someone must pay ; if it is the whole community that gains, the whole community should pay.) Now it is always true that a *conditio sine qua non* is more indispensable to an undertaking than its goal. If there is no profit for the producer, production will cease, whereas it can still go on even though the interest of the consumer is comparatively little regarded. Even if all production were taken over by the State, it would still be true that it would have as a whole to earn a profit, though loss on one department could be set off by gains in others. So we get this general position : for economic production there *must* be profits, there *ought* to be regard for the consumer's interest, and it is wrong to sacrifice that interest to the increase of profits above a reasonable figure.

So it is with regard to the relation of the economic to the cultural life of man. The economic is the more indispensable ; if men starve they can neither write poetry nor enjoy it. Yet the economic exists to subserve the cultural. The whole equipment of life with food, houses, clothes, furniture, and so forth is for the

sake of the personal life, the family life, the cultural development, the human fellowship which is thus made possible. That which is only a means is indispensable; the true end of life can be forgone; yet the means remains means and the end remains end; and the means (industry, commerce, etc.) is to be judged by its success in promoting or facilitating the true ends of human life—religion, art, science, and, above all, happy human relationships.

In the same way we must relate together freedom and order. Order is to be valued as the basis of freedom; only in a well-ordered society are the members of society really free. If the roads are beset by highwaymen we are not free to travel. Freedom is a finer thing than order, but order is more indispensable than freedom. If freedom is so developed as to turn into anarchy and chaos, men will always accept the alternative of tyranny in hope that order may be restored.

The conservative temperament tends to dwell on what is indispensable, that this may be safeguarded. The radical temperament tends to dwell most on the higher ends of life, that these may be facilitated. The world needs both. But wisdom consists in the union of the two. The great advantage of the conception of Natural Law is that it leads us to consider every activity in its contest in the whole economy of life, and so to grasp the vital importance of safeguarding what is indispensable while we fulfil the obligation of reaching out towards the higher ends as yet imperfectly attained.

WILLIAM TEMPLE, Archbishop of Canterbury,
Christianity and Social Order (1942)

THE "MAYFLOWER" SAILS EAST

MANY years ago, when I was first in New York, staying at a place called Holland House, I was taken to see a remarkable building called the Flatiron. To a European, who feared that buildings of more than four stories were overdoing it, the Flatiron was unique. Many years later, in America for the second time, from a liner's deck at dawn, I saw another New York. It looked like the exultant white city of an unknown race of beings. Common humanity could not build like that. From a distance, I hardly believed it. The place had become vertical; it accompanied the sky. I was the more astonished because the home town I had left behind me, London, was flat as usual, still horizontal. I have discovered since that America produced no more than 69,000 tons of steel in 1870, but 10 million tons in 1900, and nearly 52 millions tons in 1937, and that of the latter it exported 7½ million tons. So probably, on that second visit, I had done more than cross the Atlantic. I had reached a shore, not only of another continent, but of another age.

I didn't know then, as I looked on, and I don't know now, the truth of it, but something was certain instantly. American architects, for one body of its artists, had abolished their portion of Mediterranean culture. It had no part in a new age. There are two active unseen powers we hear about that are said to be busily shaping us; one is called economic compulsion, and the other the new rhythm of life. These powers, besides increasing the number of lunatics per thousand of population—or so alienists tell us—are creating, with steel and concrete, new homes for men. Classical forms can be disregarded when cities may grow higher and quicker with new materials, and thus keep us all in harmony with life moving much faster.

From this, however, certain things of first importance

must follow. They cannot be included as items in building contracts, having no market value, so they get no publicity. One of them is that men and women, when concentrated into vast buildings instead of being spread out by families in separate homes, will lose individuality in uniformity. The immediate presence of so many of their fellows imposes new social conventions. A crowd has its own spirit, which intimidates any assertiveness by the person. A time comes, therefore, when to these people the first condition for their happiness and security will seem to most of them to rest on the need for maintaining a common opinion about it. Timidity will guide them. The Republic, we know, was born of rebellious individuality, but it begins to appear that physical science had brought about another revolution ; boldness of thought has become of less importance than agreement with the multitude.

Pioneers, we know, must work in independence. Each man must test the nature of things with his own hands and brain, and stand on his own feet. But a modern citizen anywhere on earth, east of the Atlantic as well as west of it, too often a cliff-dweller in a lofty precipice of concrete, has parted from Mother Earth. He knows no more of her than he does of the moon. But he is ignorant of this recent complete insulation from the origin of his life because transport hides the fact. He never even surmises that he would perish, if transport failed. He is unaware, too, of a penalty for specialisation, since men's duties amid intricate industrial gearing have become widely separated. The penalty is a social organism so vast yet delicate—in fact, world-wide—that all will go wrong with it if a few arteries are cut. And the radio, nightly, keeps his ignorance in agreement with that of his neighbours. He may be said to exist in a state of vague doubt and nervous apprehension. He attends to the news of the day in a questioning attitude, puzzled as to what is

the matter with everything, and his doubt can be used without much trouble by those who know the way to do it; for his certain knowledge of what vitally affects him is dangerous in its insignificance.

An American could fairly answer : " As for us, that is our affair, not yours. We can manage. It suits us well enough. We like it that way."

It is a view to which he is entitled. But how if he part himself from general human welfare ? Civilisation concerns him, too ? It concerns all who dwell on earth. For that reason, do not suppose it is only steel in bulk which the *Mayflower* has brought back to Europe. That in itself would be mere waste without the notions to shape it to common use. There cannot be mass-production, as an absence of variety in manufacture is called, without standardising more than machinery parts. Man himself must conform to a common standard. Not only the body, but the mind must get into uniform. As an instance of this, he must, we all know, accept everywhere to-day the same film for his entertainment, in tens of thousands of theatres in two hemispheres, for no better reason than that astronomical money was sunk in its production. Art itself must conform to low and rigid standards to have profitable distribution to the multitude. More serious than production in the bulk is the view of life it compels in us, if modern industry is to run smoothly and continuously ; yet we are ignorant, for the most part, that we have submitted, without a protest, without a word being said, to such a view and another destiny.

Americans are probably unaware of the pervasiveness of their own atmosphere. That also is part of present reality. That cannot be isolated. It circulates, and it is electric and germinal. It is creating new standards on the round globe, sometimes with comic results. One day I was leaning on a ship's rail looking for a means to get ashore. We were off an unfrequented Malay island. Among the natives afloat in canoes about us

was one who was unnaturally distinct. I thought I had seen something like him before. Wherever was it? A Dutch sailor beside me explained. "He goes to the pictures." That was it. I was looking at a barefooted Malay in sombrero and chaps, who was a cowboy where there are no cows. It belongs really to another story, but I will mention here that everywhere in the Malay Archipelago, and all over the East, natives are entertained daily by drama, mainly Hollywood's, showing the activities and frivolities of white people, and for that reason we have lost an ancient credit for being superior to them in morals, and in several other important particulars. The credit may have been undeserved; anyhow, it has gone. America distributes her opinions and ideas for common currency. There is no isolation for any of us from this potent liveliness.

My first visit to the Mediterranean, the region of earth where the signs of our civilisation began to show one hundred centuries back, was near forty years ago. The origin of what eventually developed into London, Florence, San Francisco, and Chartres was there, and so my earliest voyage is still in sharp memory. Your first view of an Ionian shore never fades. After all, it is not many years since I found myself at last on the route of Odysseus, and enjoyed hours when it was still easy to believe that there abeam of my ship was the land on which the best that America and my country have and know first saw the light. It seemed to me to be the very place. Song and dance, religion, poetry, science, politics, art, and music, the way to live which would give content and happiness, from there all came. And on that voyage I found a rich variety in men, their dress, their homes, their temples, in their adjustments to circumstances, from the Tagus to Egypt. In that so recent year one could land at a different place whenever the ship anchored. Phoenician, Greek, Roman, Norman, and Moor had left their signs everywhere,

even in the tongues. On an abandoned Sicilian hillside above the sea, where a white Doric colonnade stood amid caraway and other sere herbs, the hot silence did not mean that this was at the end of its days. The scene but admonished a lonely wayfarer that he had a tradition to maintain. He had been given a lamp, and should tend it.

But what nonsense it seems to us now, this talk of a lamp to keep alight! The tradition has gone. For let anyone try the Mediterranean now—well, better not try it till the mines and other explosives have been swept out of it. A new tradition is evident all over it. New lamps for old! I was there again, during the time when Mussolini was exporting violence to Abyssinia, and was astonished by the changes. It gave me as great a surprise as my second view of New York. For one minor thing, though on my first visit I had a passport, it was not asked for, except by the Turks, who were then in Tripoli of Barbary. Nowhere were the officials fierce obstructionists. They were casual and polite. You were free everywhere. You stepped ashore, if you wanted to. But I am not thinking so much of that ease of movement, though it must seem unbelievable to this generation. In those days one had liberty, but showed no gratitude, because unaware one possessed a good thing. And it was not the brisk uniformed fellow, either, with his automatic gun, who on a recent voyage through the Mediterranean stopped me wherever the gangway was let down to another concrete quay; he was not the most startling of latter-day phenomena. The great shock came from the fact that, from Morocco to the Bosphorus, our age of science, in a few brief years, has shaped men and their cities to a new pattern, and the same pattern everywhere. The ladies of Constantinople, as it used to be called, could now pass along Broadway unremarked. They get what they want at the stores. So they do in Athens, Smyrna, Cairo, Seville. The more

recent Diana of the Ephesians would draw no eyes in Oxford Street, London. If it is the unity of the world we are after, we are well on the way to attain it, in costume. A man naturally sighs over the sad discovery, when he reaches Ephesus, that the austere charmer, sister to Apollo, daughter of Jupiter and Latona, who occasioned St. Paul some trouble, is indistinguishable from any neat stenographer. Though let that pass. Forget, too, the rigorous restrictions, prohibitions, tariffs, passport requirements, and the suspicious fellows at all ports with guns at their belts; and then even the ominous airplane, appearing in the hitherto undefiled blue with its ugly way of dropping down to look at your deck; a fearful trick that, giving one the sensation of being back in the dark ages, when anarchy ruled, and robbers were as frequent as honest men.

No, they are all disheartening, but not the worst of it. The worst of it is that the earth, once abundant in variety, is becoming everywhere alike. You cannot make much of a difference with only steel and concrete, and the drive of money, to go upon. I remember my first African landfall, the tawny hills beyond, and at the bottom of a valley by the sea terraces of white houses topped by minarets. There was a smell of herbs on the offshore wind. That walled village was a maze of courts about a market, and I suppose it lived the life it had known for centuries. I hoped then a chance would come to be there again, some day, for it was unique, it was like nothing else I had seen before. In late years, the chance came. I was once more off that valley; but the town had gone. The engines have trampled it. They are very powerful. They can crush the identity out of Africa itself. Africa, too, is being cleared, swept, concreted, and made to resemble lands that are better disciplined. What I saw, instead of an ancient Moorish community, was a finished miracle in town-planning and engineering, docks, quays, and ware-

houses. It would have won admiration from any progressive intelligence. Its natives have given up date palms, olives, goats, and camels. They are now dock-labourers and lorry and crane drivers. And I thought, as I boarded my ship, may I never see this place again ! Better luck, I promised myself, at the next port of call. Our freighter had about twenty ports of call, so one disappointment could be forgotten.

I was mistaken. Having seen that one, in a sense I had seen them all. That abominable mud, concrete, the delight of the unimaginative and idle-minded, for a fool can mould it, and it sets in frightfulness with the solidity of granite, has infected most of the shores of the Middle Sea. The worst of the stuff is that reinforced with steel it is indestructible. The public buildings and blocks of flats made of it are omnipresent, and are still rising fast. The once rich variety of the good earth has been given a universal and incurable leprous aspect. It seldom matters now where you are, in the South of France, California, or Egypt. They are much alike in appearance, and in the souls and ways of their peoples. What else would you expect ? It is the consequence of a common tyranny. Machinery reigns, and it is natural for us to assemble and bow down to obvious power. It is to recognised power that homage always goes. For that reason, industry and commerce have become more important than agriculture, and so the vast white boxes for stowing humanity into the least possible space near the power-stations are being stacked everywhere. They pile up under the Acropolis of Athens. They threaten Stonehenge. They are closing in on the Pyramids. You see them, blinding white and repulsive, in the cities of the tropics. Except in name, Madrid is no different from Birmingham or Chicago. A view of New York which astonished me, when I saw it first, has spread into a commonplace of the round globe.

Is there anything we can do ? Nothing at all, except

to worship a better idea. The time is here when we must either challenge prevailing power, or abide by it. With no change of heart, and no challenge, there is nothing for us to look to save this blasting uproar about us, and more to follow, and the increasing devastation of our only planet. We cannot isolate ourselves from a dominant notion. It crosses the widest oceans and the most closely-guarded frontiers. And humanity, its connections and communications being as quick and intimate as they are, agree that the principles governing material progress are superior to happiness and to a relish for sunlight in security, superior even to what we surmise in the temple. The gross materialism of our age has infected even the oldest culture in the world, that of China, where, before the war with Japan, the French dramatist, Francis de Croisset, witnessed in horror the destruction with pickaxes of a fourteenth-century building embodying some of the finest craftsmanship he had seen in Canton. It was the only temple remaining in a great effort to clear away the hampering past. He asked what would replace this old good work. He was told that technical achievements would do it, railways, factories, aerodromes.

" And your religion ? " he inquired.

" It doesn't fit in with progress."

Then, as they smashed an ancient figure of Buddha, such as you may see in the Metropolitan Museum, New York, and in the British Museum, London, he wanted to know what they would do for works of art. " We'll produce fresh ones, and anyhow, that is not important."

Not important. Religion and art are one, and when they cease to be of importance to a community we may expect the worst, and now we are beginning to see what that is. If we abolish Apollo as a useless myth, what sort of a substitute is Gradgrind ? I remember a Philadelphian I knew and respected, an architect of genius, who understood the spirit which sent up the cathedrals

in the middle ages as well as he did comradeship. By chance, however—it was by chance—he had made a quantity of money, and bought an old house in France, to which he retired. It was the most beautiful house in which I have stayed. It was in accord, and so was its owner, with its Burgundian scene, a land untouched then by the years of the modern ; and therein, in his gentle manner, its owner spoke to his few guests of a way of life, which would have been understood well enough in Greece more than twenty centuries ago, and in China, too, till recently. What he said of architecture was proper to literature also, as well as to the church pulpit. One year, the French local authority carried its electric standards to the borders of his estate, an enclosure so quiet that you could hear the carp at play in the moat. The local engineer was doing this for the American, who could now have his accustomed electric light. But no, the American exclaimed, and smiled. "I came here to get away from all that." He continued obstinately to light candles for his guests when they retired ; and exactly right candlelight was, though at first surprising, and even alarming, in that ancient house with its recesses and lofty rooms. Those apartments, after sunset, had known only candlelight, which was as friendly to them as was the morning sun.

At this point there will be a protest. Isn't that French house irrelevant? And what has that Philadelphian to do with the story?

Very much. He was at the beginning of it, as it were, and must see it through. Since the *Mayflower* has returned east, she had better discharge all she has in her. That should include, besides bombing planes and other technical improvements to the hurly-burly, a few of the rarer notions, without which life is no better than loud activity without direction, except to the bottomless. When the pilgrims left old England, the chief part of their equipment were ancient values that came to light again with

the Renaissance. No doubt the pioneers were largely unconscious these were in the ship, for what were they but the urge without which the *Mayflower* could not have set forth? This reminds me that I was reading, in a recent American book, a close argument for America's abstention from an attempt to solve Europe's problems. These, I gathered, are different in nature from America's. This abstention, I understood, would allow America the leadership of the world, when Europe had finished battling.

Leadership, it is plain to us all, is what the world needs. Let it come. But might not the world fairly ask, To where and what? Nor is it easy to see how a leader can isolate himself from his willing followers, unless he keeps out of sight, which will not greatly help those he leads, as they will follow him with difficulty. If technical achievements are to displace temples, even in China, and the world's artists have to stand aside while concrete is mixed, it means simply the abandonment of the best that man has thought and done. It means that the story of Bethlehem is abolished with Apollo. Plato is less than a chemical factory. All that unprofitable stuff goes. Its persuasion is silenced at last; lost in the drone of the dynamos! Such a prospect would drive an atheist to find a god to whom he could appeal.

Yet I don't see how America, the origin of technical achievements, can possibly abolish the very virtues without which there could have been no Republic. Abolish her own foundations? One day, in that old French house, not many years after the last war, I was rebuking my elder from Philadelphia for the wrong his people were doing to Europe. For one thing, there was Hollywood. It was coarsening English writing. Taking the heart out of it! Making the sentiments smell either of synthetic violets or onions. The screen was cruder than the discarded novelette. I advocated, bitterly, a com-

plete European isolation from the plague. He pointed out in reply that Hollywood's success is due mainly to superior camera art, which the public understands. That was significant. The public, everywhere knows enough to recognise on the screen the better form, and to prefer it. The content would come later. The cameramen were ahead of the film directors, that was all. He went further. He declared that America presently would teach me how to use my language ; and then played a trick, with a trifle of typescript. Who wrote that ? he asked. I could not place the extract, but suggested that it was from Sir Thomas Browne. Said the Philadelphian, " I knew you would say that. Actually, it is from Melville."

There it is. Sir Thomas as a boy of fifteen might have watched the Pilgrims depart. You never can tell where the word will again appear. The wind bloweth where it listeth. I then had to admit, to my American friend, that nothing better was being contributed to English literature than America's offering, just before her Civil War. Indeed, has anything better been added since ? If the Declaration of Independence had resulted only in Herman Melville, then the revolution would have been justified. It was pioneering, if you like, when Whitman, Melville, Emerson, and Thoreau were writing. Compared with their contribution, building railroads and telegraphs, and breaking up the wilderness, were fairly easy.

I know that Emerson and Thoreau are dusty to-day, but that is only what one would expect. It is not by chance that the first books a visitor sees when entering Emerson's study at Concord are the works of Plato ; and Plato is less easily applicable to things as they are than Karl Marx. As for Thoreau, he goes even further back than old Athens. No wonder some people think he posed ! For Zoroaster, for the wisdom of ancient Persia, to appear in Massachusetts, questioning those

matters to which we all attach the greater importance, is enough to puzzle anyone. It puzzled R. L. Stevenson, who said Thoreau was a shirker. It makes modern critics impatient, though they do admit grudgingly that Thoreau wrote as if he were a master.

Of course he did. That is what he was. A shirker could not have had the influence, and maintained it, that Thoreau's works had upon young readers and thinkers in England, over forty years ago. Many of them carried his books about as a sort of testament. Thoreau was responsible, in part, for the insurgence of political thought which followed the Boer War. A man who posed could not have managed that. It seems to me as good a return as an American could make to the land of his ancestors ; and Thoreau's people used to be at home in the Channel Islands. His books, put by in a New England attic, because they were not understood in their own day, years later began to quicken in Old England the dust of political theory. As miracles never happen, we must find a word for that. And now, since America is thinking of leading the world, when the guns cease to fire, has she considered the direction in which she will go ? For the truth seems to be that this curse of war as we know it is the direct outcome of technical achievements, which require oil fields and metal mines ; it is the consequence of industrial development uncontrolled by a knowledge of right values. One man leading the German people could not have caused this harm, if the rest of us had not lost the knowledge of the proper use to make of life. Where is the spirit which took the *Mayflower* westward ? That might quicken us. A meagre beanfield in peace, and the smell of the morning earth, would be better than great possessions while we sleep in dug-outs, fearful of the night sky and the morrow.

H. M. Tomlinson, *The Wind is Rising* (1941)

SCIENCE

REVEALING THE INVISIBLE

I AM going to tell something about a new instrument that promises to be very useful in all sorts of ways. This is the electron microscope, and its great virtue is that it can magnify things something like fifty times as much as an ordinary one. This makes it reveal a lot of things that were quite invisible before. For example, there were many diseases which were known to be due to microbes, but the microbes were too small to see in the best existing microscope, whereas now we can photograph them.

When you think of a microscope you probably think of a man sitting at a table in front of the window squinting with one eye through a little brass tube. The electron microscope is nothing like that. It stands about 9 feet from the floor : the working part is in a column about a foot in diameter and there are various parts of its gear alongside so that altogether it covers about three feet square on the ground. The object you want to study is put on a very little thin sheet of celluloid in a small chamber about 6 feet from the ground, and at about knee height there are a number of small windows at the sides of the column that you can look down through to see the image formed on a green luminescent screen.

Now, as to how it is done. The essential things in this microscope, as in an ordinary microscope, are the lenses, but the lenses are quite different here. To make an enlarged image of anything the essential thing is to be able to bend the rays coming from it. If it is possible to bend the rays in any way at all, then by being ingenious in arranging how they are bent it is possible to make an enlarged image of some sort, and by very skilful

designing to make a really good enlarged image. When the rays are rays of light the way this is done is by glass lenses, as in a telescope or a camera, and you will appreciate what I said about skilful designing when I tell you that it could easily take a team of highly trained men a year to work out the shapes of the little lenses—often eight of them one after the other—that go to make up a new pattern of high-class microscope. But in the electron microscope we are not using light, and so the lenses have to be quite different. We are making a beam of electrons, which are the ultimate stuff of electricity, tiny particles which go to make up a great part of matter. They were discovered about fifty years ago by J. J. Thomson, who was buried in Westminster Abbey three years ago, and it is only because they are working in the valves of your wireless sets that you can listen to broadcast sound. The electrons are given off by a heated wire. In a radio valve they go comparatively slowly but in the microscope they are speeded up to about a quarter of the speed of light, which means that if you could make a pipe right round the earth and shoot them through it, they would come round and hit you in the back in about half a second. At this high speed the electrons can go right through a very thin sheet of celluloid but will be stopped or scattered by any rather thicker object such as a microbe that you put on the celluloid. Here we have a set of rays which can give a picture of the object if we can bend them. Electrons can be bent either by electric fields or by magnetism, and so we have either electric or magnetic lenses. Both work, but on the whole the magnetic ones have been more used. The lens consists of a circular coil of wire in a specially designed iron frame. It carries electric current, and this curls up the tracks of the electrons in a rather complicated way that has just the same property as a glass lens has for light, of bringing them to a focus.

We have now got the two requisites for a microscope, light (only here it is not light) and lenses, and we must put them together to make the microscope. The electrons start from a heated wire at the top of the microscope column and are speeded up so as to travel downwards. There are three lenses in the microscope. The first is called the condenser, and it concentrates the beam of electrons on the object you are examining. In an ordinary microscope there has to be a condenser lens too—though people often forget about it—to concentrate the light on to the microscope slide; otherwise there would not be enough light to see by. The electrons now come to the object, say a microbe on a thin sheet of celluloid. The ones that hit the microbe are stopped, but the rest go on. Next, just below, there is another magnetic lens which could produce an image about 18 inches below, magnified about 100 times. For the small things you want to look at this is still much too small, so you do not form the image there but instead put another lens below which magnifies it again 100 times. So the final image which is looked at or photographed is about ten thousand times magnified, and as this is often still a bit small, you enlarge the photograph you have taken perhaps five or ten times more by ordinary photography. There is one peculiarity in the image of a magnetic lens that I might mention. In a camera or, for the matter of that, in your own eyes too, the image is exactly upside down, and so it is in some telescopes, though in others a lens is put in specially to make it right way up, but with a magnetic lens it is twisted round so as to point in some other direction. You have to focus of course, which you do by altering the current in the lens, and as you turn the handle to do this you see the image slowly twisting round as it gets focused.

Now why is this new elaborate gear better than the old microscope? The answer is that in the old microscope, though you can magnify the image indefinitely you gain

nothing by it beyond a certain point, as you see only a large blurred image instead of a small blurred image. There is a definite limitation to the size of the things you can see, which is the wavelength of the light you use. The wavelength of light is about a fifty-thousandth of an inch, and if you try to magnify up anything as small as this you cannot help losing all the sharp edges and you get only indefinite blobs. By very hard work using ultra-violet light, something rather better can be done, but roughly speaking it is not worth magnifying more than about four thousand times. There is a similar theoretical limitation for electrons but it only comes in for sizes many thousands of times smaller, and if it were the only limitation we could hope to be just about able to see individual atoms. However, there is another limitation which is not so fundamental, but which threatens to be practically more serious, and this is that it seems unlikely that anyone will succeed in making a good enough lens to go beyond about a hundred times smaller than an ordinary microscope can do. At present most of the successful photographs are magnified not much beyond twenty thousand, though I have seen some very good ones at a hundred thousand.

As to what the microscope can be used for, there is the trouble that the object has to be in a vacuum, and so it is much easier to work with dry things. Particles of smoke of various kinds can be seen ; some smokes are stringy, some are in little cubes and some in needles. Another trick is to study the roughnesses of an apparently smooth surface of metal or anything else, by coating it with a thin layer of resin which you afterwards peel off and put in the microscope. But probably the chief interest is in microbes and such things. Many of these can be seen with an ordinary microscope, but we now know that some of them, that looked like a blob, really had a swimming tail. There were many diseases known to be caused by microbes which were too small to see

at all, but now we can see them. I have seen one beautiful photograph made in Germany, which shows the mysterious thing called bacteriophage, a beast which attacks and kills bacteria. You can see a large black object, the bacteria, and a crowd of things like tadpoles round it swimming towards it and attacking it. Without the electron microscope they were simply not seen at all. We have also ourselves made photographs of those other mysterious things called viruses which cause certain kinds of diseases. Altogether I think we can be pretty sure that in quite a few years a great deal more will be known about disease.

I expect you want to know who invented this remarkable instrument, but I have got to disappoint you. It is the thing everyone asks about any new invention, and it is nearly always impossible to answer. Inventions are hardly ever like that. It does not matter whether it is the telegraph or photography or wireless or radiolocation, you cannot say who was the inventor, because it is a gradual process of one man seeing something but not how to use it, another pushing it on a little way, and so on. Of all the really big inventions of the last hundred years there is only one where I should care definitely to name the undisputed discoverer, and that one is Röntgen's discovery of X-rays, and they were found more by luck than by judgment. The microscope is not in that class. The theory behind it was quite well known to physicists a long time ago, and the main question was to see that there could be practical results. I remember myself not so many years ago hearing about the business and thinking it was a pretty game but that nothing would come of it. Perhaps the earliest practical work was done by a number of Germans ten years ago or so, but quite a number of other workers were on to it, and laboratory instruments had been made and used in several countries both here and abroad. Now the thing is being manufactured and can be bought in

America and we are fortunate in having half a dozen of their instruments in this country. They are being used for a great variety of purposes, and whatever may come of the work there can be no doubt that we shall within a very short time know a great deal more about what goes on in the world at the size of a millionth of an inch.

SIR CHARLES DARWIN, *The Listener* (1943)

RESHAPING PLANTS AND ANIMALS

WE live in a very artificial world, even in peace-time. We are apt to think that this has only been so in the last few hundred years since machines took over a lot of work which used to be done by men or animals. But our domesticated animals and plants are not products of Nature, but human products. A Jersey cow is as artificial as a cream separator, a bulldog is no more natural than a machine-gun, a wheat plant is as much a human product as a loaf of bread. There are no wild animals or plants with their special qualities; and there never were.

Men can alter the qualities of animals and plants in two very different ways. The first way is by altering the conditions in which they live. You can fatten up a sheep by putting it on a good pasture, or improve the yield of a potato field by adding potash, phosphate, or some other constituent which is short in the soil. Even more striking effects are produced in other ways. To take two examples, a ewe bears one or two lambs in spring. But till recently, lambs were never born at any other time. Professors Parkes and Hammond in this country have been able, by injecting a hormone from the pituitary gland of a horse, to give sheep two breeding seasons a year, so that lambs are born in autumn as well as spring. Two Soviet biologists, Zavadovski and

Judovič, and their colleagues have got the same result. So has a biologist called August in Germany. This is going to be very important in increasing the number of sheep, both in Britain and in Europe, to their pre-war levels when the war is over.

Here is another example, from plant breeding. In Britain we sow our wheat in autumn. The seeds germinate, but the seedlings do not begin to grow till spring. If the wheat is not sown till spring, it gets a late start, and does not give a good crop. But in many parts of the Soviet Union the frosts kill seedlings from wheat sown in autumn, and till recently special breeds of spring wheat had to be used. The yields were seldom as good as in this country. Then my fellow-member of the Moscow Academy of Sciences, Professor Lysenko, had a great and simple idea. Why not give the wheat grains an English winter indoors ? The wheat is stored dry in the granary. About the month of February it is wetted, and the doors opened to give it a few degrees of frost. It is sown in March or April already germinated, and gets a flying start, so to say, so that it gives a good harvest. This process is called vernalisation : it has made it possible to grow wheat hundreds of miles further north than was possible before. So Hitler's conquest of the wheat belt in Ukraine has not cut down Soviet wheat production as much as he hoped. This has been a big factor in the Red Army's resistance. Some of you owe your lives to Lysenko.

But such effects as these are not passed on from one generation to another. Wheat has to be vernalised afresh each spring. Ewes born in October instead of April do not bear lambs in October without a hormone injection. On the other hand, the differences between breeds are inherited. Some cattle breeds, such as the Aberdeen Angus, are primarily beef producers ; others, such as the Jersey, primarily milk producers. Some apples, such as Beauty of Bath, ripen in August ; others,

such as Lord Hindlip, not till February or March. These are examples of economically important characters. But other characters are also fixed in breeds. For example, Aberdeen Angus cattle are black, Jerseys usually brindled.

During the present century geneticists have discovered the laws according to which many characters are inherited, and also how new characters arise. The characteristics of a variety are handed down in two quite different ways. All domesticated animals, and many plants, for example wheat and peas, reproduce sexually, that is to say, each plant has a father as well as a mother, and named varieties breed fairly true. But some plants, for example potatoes, roses, and apples, are reproduced by cutting or grafting. All the millions of apple trees in the world called Bramley's Seedling are derived from one single tree grafted on to various roots, and are much more uniform than, say, greyhounds or Jersey cows. But they do not breed true from seed.

Novelties arise in three different ways. A new character may arise suddenly within a formerly pure-breeding strain by a process called mutation. Something goes wrong with the normal process of heredity. For example two ordinary rabbits whose ancestors, for many generations, had had ordinary hair, unexpectedly produced young with shorter and softer hair than the normal. By breeding them together, a new variety called " Rex " was produced. Its skins are used for fur coats and collars. In the same way peas with soft edible pods rose suddenly from the ordinary kind with hard pods.

Secondly, characters may be combined from two different varieties. For example, if we have a black rabbit with the soft Rex fur, and a white one with ordinary fur, we can combine these characters by crossing them. In this case the first generation of hybrids are neither white nor Rex, but some of the second genera-

tion combine both characters. This method has been very extensively used in wheat breeding. For example, Saunders in Alberta used it to combine the frost resistance of a Russian wheat with the high yield of an English one. It is sometimes possible to combine characters from two different species. In order to get potatoes which would grow in the Arctic, a Russian expedition was sent to Peru, the original home of the potato. They brought back a wild species growing near the snow-line in the Andes, but with very small tubers, and combined its frost resistance with the high yield of ordinary potatoes. But it is usually much harder to cross species than varieties, and the combination of characters follows more complicated rules.

Thirdly, if we are dealing with a plant such as the apple, which is usually propagated by cutting, every seedling differs from the parent or parents. If you plant a thousand pips, most of them will not bear such a good fruit as the parents, but one of the thousand may carry a lucky recombination of characters, and be worth growing. More than a hundred years ago, Mr. Cox, a brewer at Slough, grew a tree from a pip which bore the lovely scented apples called Cox's Orange Pippin. Cuttings from that tree are ripening their fruit in New Zealand and Australia to-day.

In practice the best breeds of domestic plants and animals have been built up by a very slow process. Only a few of their characteristics have arisen as units, and are inherited in a lump, for example the hornless character of the Polled Angus cattle. Most of them have been built up in innumerable small steps. An experienced breeder will see points in a cow or a rose which you or I would miss completely. It takes years to get your eye in, and some farmers never do so. A few men have a real genius in this direction, for example Bakewell, a Leicestershire farmer of the eighteenth century, who revolutionised our breeding methods both of cattle and

sheep. But not all the points of a breed are of economic value. I am not thinking only of fancy breeds of poultry, like the Silkie, with its white silky feathers, a crest of plumage instead of a comb, and a black face, but a poor layer. These fancy breeds are great fun, and of great scientific interest, but not of much use except for working out the laws of inheritance. I am thinking of the fact that a Jersey cow has to be of one colour, and a Holstein-Friesian of another, although racehorses, which are the most highly bred and highly tested of all animals, are of many colours. Perhaps our breeders have paid too much attention to inessentials.

For an example of scientific breeding, I go to Denmark. The Danes established their butter industry by selection. Almost all the cows in a herd have calves, but only a few of the males are used as bulls. So a herd is improved most quickly by picking out the best bulls. But since a bull gives no milk it is not so simple to choose them. Danish breeders tested bulls by mating them to cows of known butter production, and seeing if the daughters did better than their mothers. The successful bulls, which they called butter bulls, were extensively used in their old age. The Soviet collective farmers went one better, and used artificial insemination, sending the semen, or seed, of a good bull for hundreds of miles by aeroplane or carrier pigeon ; so that a single bull might beget hundreds of calves in one season on cows whom he had never seen. We have taken up both these methods of stock improvement in Britain, but our farmers are not giving such a lead to the rest of the world to-day as they did in the eighteenth century. The egg-yields of poultry and ducks have been stepped up by selective breeding until many birds have laid over three hundred eggs in a year. Selection is easier here, because you can get a great many chickens from one hen. But once again, the most rapid progress is made by selecting roosters on the basis of their mother's

and daughters' egg-yield. Unfortunately, our best egg producing strains of poultry are nothing like as healthy as our best dairy cows. Similarly sugar beets are selected on the basis of their sugar content, not their appearance. The analyst, who estimates sugar with an instrument called a polarimeter in the laboratory, is just as important as the actual breeder in this kind of work.

One reason why British breeders are not keeping up their former lead is that we have neglected the science of genetics, which deals with inheritance in plants and animals. Ten years ago there were two professors of this subject in England. Now there is none. But there are hundreds both in the United States and in the Soviet Union. Our first English professor of genetics, Punnett, invented the method of sex-linked crosses by which the sex of chicks can be determined at hatching. Before the war several million chicks were reared from such crosses every year, so Professor Punnet's salary was not a bad investment for his country. I hope that as part of our post-war reconstruction we shall give genetics a serious place in our research and education. The geneticist cannot do a very great deal for British agriculture. Our plants and animals are pretty good. His biggest tasks will be to improve the health of our high-laying poultry, which are delicate birds though their high egg production is no more unnatural than high milk yield in cows, and to do for meadow grasses what past generations have done for wheat and barley. Another field for the breeder is the improvement of fur-bearing animals such as the fox and rabbit. New colour varieties of the fox always fetch a high price, but are not likely to be valuable when they become common. What we need is improvement in the durability of furs so that a rabbit coat will last as long as musquash. In view of the changes which have been produced in Angora rabbits bred for their wool, this does not seem impossible.

An almost untouched problem is the breeding of single-celled plants, such as yeasts, bacteria, and moulds, which carry out fermentations yielding various chemicals such as the ethyl alcohol in beer, wine, and spirits, and butyl alcohol, which is used in the manufacture of explosives. Different breweries have their own races of yeasts, but the hybridisation of yeasts, so as to combine valuable qualities, was only accomplished just before the war by Winge in Copenhagen. Breeding of these microscopic plants would help many branches of the chemical industry.

But Britain is the centre of a great Commonwealth, and in many parts of it, especially India, the animals and plants are as far from perfection as were our own in the Middle Ages. The self-governing Dominions are tackling their own problems, and British geneticists are improving a few tropical plants such as cotton and bananas. But the centre of the world's research on tropical agriculture was in Java. Dutch scientists have been particularly successful with the sugar cane. No one can tell how much will be left of their research institutes when the Japanese are cleared out. We need teaching institutes in Britain where students can come from India, West Africa, Jamaica, and so on, and research institutes in the tropics where they can study their own problems at first hand. But I must apologise. Mr. Wells has told you that the doctrines of the political party to which I belong are fifty years out of date. You may think that my suggestions are Victorian.

I want to leave you with the conviction that the animal or plant breeder is a truly creative man or woman. I am thinking particularly of men like Keens, the Isleworth market-gardener who made the first modern strawberry in 1806 by crossing a big purple species from Chile with the small red European species. Someone will say that breeders merely pick out what they want from the materials provided by Nature. You

might as well say that a sculptor merely chipped away marble from a block, and the statue was there all the time. I want you to be proud of the great achievements of our breeders in the past, proud that Denmark was colonised by Middle White pigs from England which used to provide so much of our bacon, proud that English rams are being used to improve wool production on the giant Soviet sheep farms. And I want you to see that when the war is over, British men and women will have the opportunity to carry on their great traditions by making still more beautiful and useful animals and plants.

J. B. S. HALDANE, *The Listener* (1943)

SCIENCE, NATURAL AND SOCIAL

WRITERS and philosophers have often attempted to illuminate human affairs by means of biological analogies. Shakespeare, in *Coriolanus*, drew the analogy between the human body and the body politic in Menenius' speech on the body and its members. Herbert Spencer's work is shot through with the premise that human biology is but an extension of biology *sensu stricto*, and that, accordingly, biological analogies will in general have validity. Various German philosophers during the latter half of the past century justified war on the basis of the Darwinian conception of the struggle for existence, and the apostles of *laisser-faire* in Britain found support for economic individualism in the same doctrine. Socialists, on the other hand, have pointed to the fact of mutual aid in Nature, as set forth by Kropotkin. Analogies with the social organisation of ants and bees have been used, according to taste and prejudice, to glorify or to attack the doctrine of human collectivism. The Marxist thesis of progress being achieved through a reconciliation of opposites, only to lead to a new anti-

thesis, which in turn paves the way for a new synthesis, is customarily documented in the works of communist philosophers by examples from biological evolution.

It is interesting to ask ourselves precisely what validity resides in this method of extending biological principles by analogy into human affairs. At the outset, it is clear that analogy, unless applied with the greatest caution, is a dangerous tool. This is clear to the modern scientist, but it has not always been so. Indeed, to put too great a burden on the back of analogy is a fundamental temptation of the human mind, and is at the base of the most unscientific practices and beliefs, including almost all magical ritual and much of supernaturalist superstition. During the last millennium, moralists, theologians, and scholastic philosophers have often regarded analogy, even of the most far-fetched kind, as the equivalent of proof.

Has analogy, then, no part to play in scientific thought? Far from it. Analogy is in the majority of cases the clue which guides the scientific explorer towards radically new discoveries, the light which serves as first indication of a distant region habitable by thought. The analogy with waves in water guided physics to the classical wave-theory of light. The analogy with human competition, after playing an important rôle in Darwinian theory (did not Darwin arrive at the theory of natural selection from his reading of Malthus?), was transferred by Wilhelm Roux to a smaller sphere, the struggle of the parts within the individual.

But analogy may very readily mislead. Weismann sought to apply this same analogy of intra-organismal struggle and selection to the units of heredity; but the analogy happens not to hold good. The analogy of a stream of particles misled Newton as to the nature of light.

Analogy thus provides clues, but they may easily be false clues; it provides light, but the light may be a

will-of-the-wisp. However pretty, however seductive, analogy remains analogy and never constitutes proof. It throws out suggestions, which must be tested before we can speak of demonstration.

But if non-scientists often overrate the importance of analogy, scientists themselves tend to be over-cautious and to underrate its potential value. Its value is specially great when the analogy is one between closely related subjects. The analogy between the evolution of different groups of animals is often surprisingly close, for the simple reason that both the material and the conditions are essentially similar throughout. None the less, unpredictable results are not infrequent. The adaptive radiation of the marsupials in Australia was in its broad lines similar to that of the placentals in the rest of the world ; but the placentals never developed large jumpers like the kangaroo, and, conversely, the marsupials produced no quick runners like horse or antelope, and no freshwater fish-eaters like the otter. Again, the parallelism in the social evolution of the quite unrelated ants and termites is truly astonishing ; yet the termites have never produced grain-storers or slave-makers, while the ants have no system of second-grade queens in reserve.

One further caveat before we pursue the biological analysis of man's social existence. Human societies, though indubitably organic, are unlike any animal organism in the mode of their reproduction. Strictly speaking, they do not usually reproduce at all, but merely perpetuate themselves. They exhibit no process of fertilisation between living gametes, no distinction between mortal body and immortal germ-plasm. They continue indefinitely by the aggregate reproduction of their component individuals. In the development, change of structural and functional pattern can be dissociated from growth in a way impossible to a developing animal, and social hereditary operates via cultural

transmission not by the physical transmission of material potencies of development. On the other hand, the separation of phylogeny and ontogeny, the development of the race and the development of the individual, which is so evident in higher animals, is blurred in social development to such an extent that the two often coincide.

All analogies between the birth, development, and death of civilisations or nations and of animal organisms must be very heavily discounted because of this fundamental difference in the mode of their reproduction and inheritance.

Now, with these facts in mind, let us look at some of the biological analogies that lie near to hand. In the first place, there is the analogy between the societies of insects and those of man. This, however obvious and however often applied, must be rejected out of hand. The two rest on different bases,—those of ants, bees, and termites on the fixity of instinct ; those of man on the plasticity of intelligence. For this reason man cannot and will not ever develop specialised castes, with functions predetermined by heredity, nor will human society ever work with the machine-like smoothness of an ant-hill or a termitary. Furthermore, we must not expect that in man the altruistic instincts will ever become predominant : as Haldane has demonstrated, this can only occur when neuter castes of workers or soldiers exist. Altruism in man must be fostered by education and given fuller play by appropriate social machinery ; it cannot be implanted once and for all by heredity.

The next analogy to be considered is that between the body of a higher animal and human society. This has taken two main forms. In the one, the analogy is drawn between the main classes of society and the main organ-systems of their body, or, going a little further into detail, between the specialised functions of various agencies of social existence—trade, government, war,

education, and so forth—and those of particular bodily organs. In the other, which has been attempted only since the discovery of the cell and the rise of the cell-theory, the cell within the body is compared to the individual within society. An extension of this second analogy bridges the gap between it and the first: instead of the individual cell, attention is concentrated on the different types of cells and the different resultant tissues of the body; and those, rather than the still more complex organs, each composed of numerous tissues, are compared with the various specialised trades and professions in human society.

In assessing the value and limitations of these analyses, we must begin by recalling the basic difference between the animal body and human society, namely, the far greater subordination of the parts to the whole in the former. This is especially important for the comparison between cells and human individuals. The difference here is the same basic one as that between the castes of a social insect society and the specialised aptitudes of human beings, but pushed to a much greater length. The cells of the body are irrevocably specialised during early development, and their divergent specialisation is far greater than that between even a queen and a soldier termite. Without embryological study, no one could guess that a nerve-cell, with its long nerve-fibre and its branching dendrites, a sperm, with condensed head and motile tail, and a fat-cell, an inert lump crowded with globules of reserve fat-stores, were all modifications of a single common type. Altruism, in the sense of sacrifice of the unit for the good of the whole, has also been carried to a much higher pitch. The cells of the outer skin have no other function than to be converted into dead horny plates, constantly shed and as constantly renewed; the red blood-cells lose their nuclei before being capable of exerting their oxygen-carrying function, and have a life much more limited

even than that of worker bees. Units may even be pooled. The giant nerve-fibres of cuttlefish are the joint product of numerous united nerve-cells ; our own striped muscle-fibres are vast super-units, comparable with a permanently united tug-of-war team.

In terms of biologically higher and lower, there is thus a radical difference between cells and human beings. Both are biological individuals which form part of more complex individualities. Cells are first-order individuals, bodies second-order ones, and human societies (like hydroid colonies or beehives) third-order ones. But whereas the individuality of the body of a higher animal, be it cuttlefish, insect, or vertebrate, is far more developed than that of its constituent cells, that of human society is far less so than that of its individual units.

This fact, while it makes the analogy between cell and human individual almost worthless, is of great value itself as a biological analogy, since it immediately exposes the fallacy of all social theories, like those of Fascism and National Socialism, which exalt the State above the individual.

A book could be written on the subject of analogies between biological organisms and society. One with peculiar relevance to-day is the tendency, repeated over and over again in evolution, for types to specialise on the development of brute strength coupled with formidable offensive or defensive weapons, only to be superseded by other types which had concentrated on efficiency of general organisation, and especially on the efficiency of the brain. The outstanding example is the suppression of the formidable reptiles of the late Mesozoic by the apparently insignificant mammals of the period.

This phenomenon is often somewhat misinterpreted as the replacement of specialised by generalised types. There is an element of truth in this idea, but the fact

is often lost sight of that the successful generalised type always owes its success to some improvement in basic organisation. Such improvements in general organisation are specialisations, but they are all-round specialisations whereas what is usually called specialisations are one-sided. This distinction contains the kernel of what is probably the most important of our biological analogies—the analogy concerning desirable and undesirable directions of change.

A detailed analysis of type of evolutionary change shows that some of them can legitimately be called progressive, in the sense that they constitute part of a steady advance on the part of living matter toward a greater control over an independence of its environment. Only a small and steadily diminishing fraction of life participates in progressive change.

Each step in progress is constituted by all-round specialisation—an improvement in general organisation ; one-sided specialisation always leads into an evolutionary blind alley.

Here I have only space to mention the two types of change which have been most important in the later phases of evolutionary progress. One is the development of mechanisms for regulating the internal environment of an animal, and so making it more largely independent of changes in external environment or better able to pass from one type of activity to another. The other is the improvement of the mechanisms for obtaining and utilising knowledge of the environment, which in its later stages, after the efficiency of sense-organs had reached its limit, has been brought about by improvement in brain mechanism.

The biological analogy from the former is obvious. It provides the most abundant justification for the abandonment of *laisser-faire* in favour of social and economic planning : but the planning must be designed to give society an internal environment which shall be

both stable in essentials and flexible in detail, and to enable it to undertake the greatest diversity of functions with the least dislocation.

The biological analogy from brain evolution is, however, even more illuminating. As animal evolution continued, the avenues of progress were cut off one by one. Changes that had been progressive in their time were exploited to the full and reached the limit of their potentialities. Mere bulk of body had reached its limit in the dinosaurs during the Mesozoic, some sixty million years ago. Ten or twenty million years later, temperature-regulation in certain animal forms had been perfected. The exploitation of the insectan type of social life by ants was over about twenty-five million years back, and ants have not evolved since.

Similarly, the number of the groups which might share in progressive change steadily narrowed down. Groups like the echinoderms were soon eliminated owing to their headlessness ; then the great phylum of molluscs, through defects in general organisation ; then the insects, through their limited size. Only the vertebrates remained. The cold-blooded forms were eliminated by the biological invention of temperature-regulation ; the birds, by their over-specialisation for flight ; the marsupials, by their greatly inferior reproductive mechanism. Among the placentals, now sole repositories of potential advance, the majority of lines cut themselves off from progress by one-sided specialisation. Only the arboreal primates escaped, since their mode of life left teeth and limbs unspecialised, while demanding greater efficiency in the highest sense of all, vision, and greater correlation between hand and eye. This correlation meant improvement in brain structure, which spilled over in the form of increased educability and awareness. Finally, all the primate lines but one wandered into blind alleys, becoming over-specialised for tree life. Only the one stock which early re-descended to the ground and concentrated

on all-round adaptability remained potentially progressive—man. The human species has now become the only branch of life in which and by which further substantial evolutionary progress can possibly be realised. And it has achieved this enviable, but at the same time intensely responsible, position solely by concentrating on brain as against other organs as its line of specialisation.

This evolution of brain, as the one inexhaustible or at least unexhausted source of progress, thus demands our closest attention as a biological analogy for social affairs. With some simplification, the process of brain evolution in vertebrates is resolvable into two main steps —first, the addition of two centres of correlation in different parts of the brain, one for the correlation of sensory knowledge, the other for the correlation of action, and of course with the two centres united by communicating cables. This is the stage arrived at in fish. The next step was the provision of a further quite new centre of correlation, superimposed on the previous mechanism. This organ of ultimate adjustment and control consists of the cerebral hemispheres, which are wholly unrepresented in the lowest vertebrates. Its essential exchange mechanism consists of the cerebral cortex. So far as we know, the cortex, in spite of all localisations and functional specialisations within it, always acts as a whole, in the sense that its activity can be thought of as a complex field which is altered in its total functioning by any alteration in any of its parts.

The final step between ape and man is marked by the great enlargement of those areas of the brain which have the least specialised function—the so-called association areas, which lie between the regions wherein are localised the reception of relayed sensory information and the emission of executive messages for action. It is this, it seems, which has made possible self-consciousness and true conceptual thought.

During the course of their evolution, the cerebral hemispheres increased from zero to a mass which exceeds that of all the rest of the central nervous system taken together, and became one of the larger organs of the body.

Our brain analogy undoubtedly illuminates the social problem in an extremely valuable way. In the first place, the highest stage of evolution in this respect which has as yet been reached by any society is, by biological standards, extremely primitive. It corresponds with a quite early stage in the development of cerebral hemispheres and cortex: higher than that of a fish, but certainly not beyond that found in reptiles. Before humanity can obtain on the collective level that degree of foresight, control, and flexibility which on the biological level is at the disposal of human individuals, it must multiply at least tenfold, perhaps fiftyfold, the proportion of individuals and organisations devoted to obtaining information, to planning, correlation, and the flexible control of execution. The chief increases are needed in respect of correlation and planning and of social self-consciousness. In these respects, wholly new social organs must be evolved, whose nature we can only envisage in the most general terms.

In respect of planning and correlation, we can dimly perceive that some large single central organisation must be superimposed on the more primitive system of separate government departments and other single-function organisations; and that this, like the cerebral cortex, must be at one and the same time unified and functionally specialised. It will thus contain units concerned with particular social and economic functions, but the bulk of its personnel will be occupied in studying and affecting the interrelations between these various functions.

As regards social self-consciousness, the course of evolution must be quite different. Newspapers and

books, radio, universal education—these and other points of technological and social advance have given us, in primitive form, the mechanism needed. At the moment, however, they are being, in the light of biological analogy, largely misapplied. Education stops dead for most people in early adolescence, and concerns itself mainly with providing specialised techniques, together with a froth of obsolescent "culture." The cinema to-day is primarily an escape mechanism. Newspapers distort the balance of truth in the service of political or financial interests, and are driven by competition for advertising into sensation-mongering. The radio is as yet essentially a collection of scraps, a functional patchwork. Art as a communal function is moribund and needs to be re-created on a new social basis. Religion is in a similar position, and much of the population no longer feels its influence.

The first need is to recognise that, in this increasingly complex world, a free country cannot exist, let alone find satisfaction, without being self-conscious, and all the agencies of public opinion must be moulded to this end. A self-conscious society would be one in which every individual comprehended the aims of society, his own part in the whole, the possibilities of intellectual, artistic, and moral satisfaction open to him, his rôle in the collective knowledge and will. But for this, as for correlation or planned control, the most elaborate organisation is required.

Meanwhile our social planners would undoubtedly benefit from a study of the evolution of individuality in animals, and still more from an intensive course in the comparative neurology of vertebrates.

JULIAN HUXLEY, *The Uniqueness of Man* (1941)

OUR HOME IN SPACE

THE earth seems such a solid affair when we stand on it, and so big when we travel over it, that it is hardly surprising that men used to think of it as a vast immovable mass, forming the very centre of the universe. Many of them pictured it as a sort of flat board, with the starry sky covering it—rather as a dish-cover covers a dish. Of course they saw that the stars continually turned round the pole, and so they had to suppose that the dish-cover turned round over the dish ; this was simpler than to suppose that the dish turned round under the dish-cover. Yet there were some, especially among the Greeks, who held different opinions. More than five centuries before Christ we find Pythagoras maintaining that the earth was of a globular shape : a ball floating in space, he said. Some centuries later, other Greeks, and Aristarchus in particular, began to see that this ball must not only float in space but must also move through space—must in fact revolve around the sun. But the idea did not prove popular. Men did not like to think of their home as anything less than the centre of the universe ; they found it simpler and more flattering to their self-esteem to think of the earth as standing at rest, while everything else revolved round it. And so they continued in their old beliefs for nearly two thousand years after Aristarchus had seen and proclaimed the truth.

Then, just about four hundred years ago, Copernicus, a Polish ecclesiastic, wrote a book of tremendous importance. He pointed out that the complicated motions of the sun and the planets across the sky could all be very simply explained by supposing that the sun stood still, while the earth and the planets revolved around it. While these ideas were still being discussed, Galileo, a professor in the University of Padua, made a small telescope with his own hands and convinced himself—

and also showed to all the world—that things were as Copernicus said ; the sun did not revolve round the earth, but the earth and also the planets revolved round the sun. In this way the earth had to abandon its proud claim to be the centre of the universe—to become an ordinary planet, a mere fragment of matter revolving round a much larger sun. And three centuries of astronomical study have reduced its importance still further. If we look out on a clear moonless night, we shall see the Milky Way stretching across the sky, looking like a faint pearly ribbon. We know now that the Milky Way is a vast belt of distant stars, each star a sun more or less like our own. Most of its stars are too far away to be counted, even in a large telescope, but—strange though it may seem—it is possible to weigh the lot. We can do this by measuring the gravitational force with which they attract our sun.

In this way we find that the Milky Way must consist of about 100,000 million stars. I admit that I find it hard to think of such large numbers, and if you do too, let us call it fifty stars for each inhabitant of the earth. But even this vast number of stars forms only a minute fraction of the stars in the sky. The Milky Way is a flat cluster of stars isolated in space, with our sun well inside it ; that is why we see its stars all around us. But it is only one of a vast number of similar clusters of stars, or galaxies as we call them, and each of these also contains another 100,000 million or so of stars. It is difficult to say how many of these galaxies there are, but it seems likely that there are about as many galaxies in space as there are stars in each galaxy, namely about 100,000 million. If so, there will be about fifty galaxies for each inhabitant of the earth, which means five million million stars for each one of us. Roughly speaking, we may say that there are as many stars for each person in the world as there are blades of grass in several square miles of pasture. Think over this next time that

you are out in a big grassy field, and you will begin to form some idea of the immensity of the universe in which we live. There must be more stars in the sky than there are blades of grass on the whole surface of the earth. A colony of minute organisms inhabiting a blade of grass might look out over the surrounding prairie and reflect that if their own blade of grass supported so much life, how much more must there be in the whole prairie. In the same way it has often been conjectured that as our sun maintains life on at least one of its planets, other stars probably do the same on their planets, so that the whole universe must teem with life.

But it is only a conjecture that other stars are accompanied by planets. They are all so far away that we can never hope to see their planets, even if they have any to see. We can only discuss whether they are likely, on general principles, to have planets circling round them as our sun has. If we could discover why our sun has planets, we might be able to form some judgment as to whether other stars are likely to have them or not. There is certainly no obvious reason why our sun should be more favoured than other stars in the matter of planets. It is just one of the 100,000 million stars of the Milky Way and a very ordinary star at that, fairly average in size, weight, brightness, temperature and so on. Some stars—but only a few—are millions of times larger than the sun, but the majority are substantially smaller. If we represent the sun by a cricket-ball, the smallest stars must be represented by pinheads, and the largest by barrage-balloons. Again, some stars give out hundreds of thousands of times more light and heat than the sun, but others give less than a ten-thousandth part as much. If the sun is an ordinary candle, some stars are stronger than searchlights while others are feebler than glow-worms. In these respects, as in others, the sun is about half-way between the extremes. It has eight planets revolving round it, besides our earth. All

of them are very small compared with the sun. If we imagine the earth reduced to the size and weight of a cherry, the planets will range from melons to currants in size, but the sun will still have the size, and also the weight, of a good-sized elephant. Four of the planets are larger and four smaller than the earth, so that the earth is the middle-sized planet. It is also of about average temperature, or slightly above. Thus there is nothing in any way outstanding about either the sun or the earth ; we live on a very ordinary planet which revolves round a very ordinary star.

There is, however, another line of attack on the problem. If we can discover how the sun's planets came into existence, we may be able to see whether other suns are likely to have the planets come into existence or not. It used to be thought that the planets were simply bits of matter which the rapidly-spinning sun had thrown off from itself, much as a rapidly spinning bicycle wheel may throw off splashes of mud. If so, we might have expected that those stars which were spinning rapidly would be surrounded by planets, and the others not. But we know now that this explanation will not do. The sun can never have rotated anything like fast enough to throw off planets in this way, and we must look for some other way in which its planets can have come into existence. Most astronomers now believe that this happened through a second star coming quite close to the sun in its wanderings through space, and raising immense tides in the sun ; the planets were formed as condensations of a sort of spray which was then thrown off.

To see what this means, let us look at the ordinary tides that we find at the seaside. These are hillocks of water which the moon piles up by its gravitational pull on the waters of the ocean. It raises similar tides in the solid body of the earth, and also in its atmosphere, but these are less noticeable than the familiar ocean

tides. All these tides are quite small, partly because the moon which raises them is quite small in comparison with the earth, and partly because it is so far away. If the moon suddenly became as big as the earth, the tides would be eighty times their present size : hills of water hundreds of yards high. And if this larger moon were brought ten times nearer to the earth than it now is, the tides would be increased a further thousandfold ; they would now be huge mountains hundreds of miles high, so that the earth would be pulled completely out of shape by the gravitational pull of the moon. The same sort of thing would happen to the sun if its wanderings through space brought it to within two or three millions of miles of a second and larger star ; the same process would repeat itself but on a larger scale. The main difference would be that the sun consists of gas, so that the tides would of course be gaseous too : they would be huge mountains of gas rolling over the surface of the sun. As the two stars approached one another, these mountains would steadily increase in height until they could no longer be described merely as tides. Finally a long jet of hot gas would be pulled out from the sun, pointing in the direction of the second star. It would not last long as a jet, but would begin to break up, much as a jet of water breaks up into drops when it comes out of a hose-pipe. Condensations of gas would begin to form at different points along it, and soon all the gas of the original jet would have collected round one or other of these condensations. The final result would be a number of globes of hot gas revolving round the sun, so that after the second star had passed on its way, the sun would be left with a family of planets as a souvenir of the visit. We can calculate the course of events in some small detail, and find that the family of planets produced in this way would be very like the sun's actual family.

All this makes it highly probable—although it does

not prove—that the sun's family of planets was produced in the way I have described : a larger star wandered near to our sun, pulling it out of shape and raising huge tidal mountains on its surface, and the planets finally appeared as a sort of condensation of the spray splashed up in the process. Now this sort of thing could happen to stars other than our sun, but it will only happen if the two stars concerned come quite close to one another : they must come to within one or two diameters of one another. And the stars are so sparsely scattered in space that such an event is of almost inconceivable rarity. Put three grains of sand inside a vast cathedral, and the cathedral will be more closely packed with sand than space is with stars. Our sun could probably wander about through the stars for many million of millions of years before approaching close enough to a second star to produce planets. This shows that we need not concern ourselves with the possibility of our sun producing a second family of planets in our lifetime. But we can look back to a past epoch when the stars were not the compact masses they now are, but vast nebulous masses of tenuous gas. Such masses are far more vulnerable to tidal attack than the present compact stars, and each star would have a reasonable, although still small, chance of producing 'planets. But even though this chance were only one in a million, the number of stars in the sky is so great that there would still be millions of millions of planetary systems produced, with several planets in each. Many of these planets no doubt would be very different from our earth, and most of them might be utterly unsuited to the support of life. Even so, there must still be many millions in a physical state like that of our earth.

In some such way as this, we can imagine our earth, and innumerable other planets as well, starting their lives as nebulous balls of gas torn out of their parent suns. After a time such a ball of gas will begin to cool,

so that much of its substance will become first liquid and then solid. Generally speaking, the heavier substances will liquefy first, and as they do so, will fall towards the centre, finally forming a solid core like the body of the earth. Most of the lighter substances need much lower temperatures to liquefy them. On bitterly cold planets like Saturn or Neptune, these lighter substances have already liquefied, or even solidified. But our warmer earth is not cool enough to liquefy most of them. Water vapour is rather exceptional, changing into liquid water while the temperature is still fairly high, so that the water vapour in the earth's atmosphere must have condensed at a fairly early stage, and fallen on to the earth's surface in torrential showers of rain. These would fill up any depressions there might be in this surface and finally form oceans such as we know. In the end we have a solid mass of rock, covered in part by oceans of water, and, surrounding all, an atmosphere of gases such as oxygen and nitrogen which do not liquefy at the temperature of the earth. By now the earth had reached a state which was pretty much like its present state, and the stage was set for the appearance of life which, starting from the humblest of beginnings, increased in complexity until man appeared—whether as a culmination and climax, or merely as a transitory incident in the upward surge of life, we simply do not know : the future will show. Millions of other planets have probably followed the same road, and attained a state equally suited for the appearance of life. Has life appeared on them as it did on earth ? If so, is it like the life on earth, or has it taken an entirely different path ? Again we simply do not know.*

SIR JAMES JEANS, *The Listener* (1942)

* The author wishes it to be made clear that this is a broadcast talk, and was not written in the literary form of an essay.

LIFE FROM A NEW ANGLE

TRY asking a friend to describe in detail the character of somebody you both know intimately. It is ten to one that, after thinking a minute or two, he will say, "Well, he's a queer chap, really." Actually he is probably no queerer than anyone else. "All the world's a little queer save thee and me, and even thee's a little queer," as the old Quaker said. Even after thousands of years of dealing with his friends and neighbours, man has still not developed any satisfactory common-sense picture of what human characters are like. As soon as one starts thinking about a person, whoever he may be, he begins to appear as a mysterious mixture of contradictory elements, which are, surprisingly enough, fused together in some incomprehensible way into a recognisable and definite character.

Scientific study has recently discovered a great deal about human beings, so that we can now form a much better idea of what they are really like. But to do so involves a certain effort of imagination. We can show, I think, that the difficulty of making an adequate mental picture of a human being was largely due to the fact that we tried to think in the wrong terms; we carried over habits of thought which are good enough in dealing with things like sticks and stones into fields where they are not suitable. In their efforts to go deeper into things, scientists, as Bernal said, "have been forced to adopt new mental attitudes which involve a break with the traditions of thought reaching as far back as the Greeks, if not farther."

The new knowledge about man comes from many different sources. Herbert Read pointed out that the great new developments in human thought are not confined to single subjects, but spread over science, art, politics, philosophy, in fact over all the interests of thinking and feeling man. Even within science, many

branches have contributed to the new advances. They come from sociology, which is the study of human societies, as well as from psychology, the study of man's mind, and biology, the study of animals, including man. In this essay I shall take the last of these as my point of departure. And this will be taking things in the right order, since the general characteristics which man shares with other animals are more fundamental than the specialised sociological and psychological traits which he only acquired at a late stage in his evolutionary history.

Within the last hundred years, scientific ideas about animals have undergone three revolutions. The first happened in the middle of the last century, and its decisive point was the establishment by Darwin of the theory of evolution. By to-day this has just about worked through into common sense. Darwin's contemporaries rejected with horror and disgust the unbiblical idea that human beings are descended from some being much more like an ape than any existing man ; but people nowadays have learnt to accept that as a matter of course, and to find in it, not a degrading insult, but a reason for hope that we may become still better in the future.

The other two revolutions are more recent, and have not yet had time to become respectable good sense ; they still seem pretty odd. One is concerned with the ultimate units which determine the nature of an animal, whether it is a man, a cat, or a mouse. The fundamental discovery on which it is based became generally accepted among scientists only about forty years ago. The other twentieth-century revolution deals with the way in which these units work together during the development of the animal ; its main discoveries were made only about twenty years ago and are still being worked out.

The first of these great new discoveries came out of

the study of heredity. Everybody knows that children sometimes, and in some ways, resemble their parents. It seems at first sight a rather trivial fact. And it is undoubtedly tricky, as you can learn from anyone who tries to beat the book by studying the pedigrees of race-horses. But its importance in biology is this. The simplest form in which an animal ever exists is as the tiny fertilised egg at the very beginning of its individual existence ; all through its later life it will be gradually getting more and more complicated. If one wishes to know what are the basic qualities of an animal, the place to look is therefore in the fertilised egg. And anything which is in the egg must have got there by inheritance from the parents, whereas other characteristics which appear later in life may have been produced by outside influences during the course of the animal's existence.

The common-sense view of heredity is still, I suppose, what it used to be fifty years ago, namely that a child is some sort of mixture of its parents, a kind of blend between them. Darwin already realised that there must be something wrong with this. If it were true, people would gradually get more and more alike as generation succeeds generation. You can easily see why if you mix together all the brightest paints you can find ; at every mixing the result is more drab and mud-coloured than the ones you started with. Darwin knew that as evolution has gone on animals have, contrariwise, become more and more different from each other. But although he knew there must be something wrong with the ordinary view, he did not discover the true state of affairs.

That was done by the Czech monk, Mendel. He seems to have first spotted the answer by pure intuition. He saw that there must be separate hereditary factors corresponding to the various characteristics which an animal may inherit, and he worked out the rather

complicated way in which these must (if the whole system is to work) be handed on from parent to child. Having guessed all this he set about demonstrating it; and triumphantly did so with the pea-plants in the monastery garden. It is one of the most splendid examples of a hunch which came off.

The exact rules of heredity are not altogether simple, but there is no need to explain them here. They are pretty well summed up in the old jingle :—

> " There was a young fellow called Starkie,
> Who had an affair with a darkie,
> The result of his sins
> Was quadruplets, not twins,
> One black and one white and two khaki."

But they should have been his grandchildren, not his actual children. Anyone who wishes to understand the reality behind this piece of nonsense, should read *You and Heredity* by Amram Scheinfeld.

The point I want to make here is that Mendel showed that the essential nature of an animal is determined by a number of separate individual hereditary factors, rather as physicists have shown that an apparently continuous substance is really composed of separate atoms. An animal is not a mixture in which the different constituents blend together, like paints, but one in which they retain their individual characters, like the flavours in a cocktail.

This is a point which common sense has never fully grasped, although it sometimes seems to be toying with similar ideas. For instance, we say that a child has inherited its father's nose but its mother's mouth. And according to Mendel that may be roughly correct. But we are still surprised at the unexpected combinations of traits in our friends' characters, though now the biological theory shows why we should expect to find them. Hitler, for one, has never understood that a man may

have a Jewish nose but be a Christian, or even a Nazi or any other kind of character. A scientific plant-breeder nowadays thinks of a particular variety of wheat, for instance, as having a set of separate characteristics, such as earliness, hardness of grain, etc., and it is his business to fish out the characteristics he wants and combine them in his new variety. That is the kind of basis on which we have to build up our idea of human character.

The hereditary factors themselves have turned out to be much more ordinary, common-sensical things than was at first thought. They were originally discovered by counting the different sorts of offspring from hybrid peas and mice and so on ; a strictly correct point of view considered them as purely hypothetical entities, mere symbols which entered into the calculations. But Morgan in America took the plain-man attitude that each factor must be a definite little particle of matter, and set about finding them. Find them he did, and thereby earned a Nobel Prize. They lie in rows along the thread-like structures known as chromosomes, which can be found in the middle of every cell in the body. With the aid of the best microscopes, we can almost see these particles in a few special cases ; there are some cells in which the chromosomes are very large and have a banded structure, and we can show that each band either is a factor, or at any rate encloses one.

From all this it appears that the fundamental nature of an animal is embodied in a collection of little lumps of material, like a set of bricks. But it is impossible really to make much sense out of such a theory unless we also take into account the second of the recent biological revolutions. For our friends certainly are not just bundles of quite separate and disconnected traits. Each individual has a certain unity ; the different facets of his personality hang together in some way.

It is from the study of development that we have obtained our deepest insight into the unity or " wholeness "

of living things. The gradual growth of the fertilised egg into the adult animal, accompanied as it is by the formation of more and more complex organs and tissues has always appeared to philosophers, from Aristotle onwards, as one of the most mysterious happenings in Nature. It has also been extremely difficult to find any way of explaining it. When the first partially successful attempt was made to unravel the processes involved, in the 1890s, it immediately appeared that the eggs of many animals do not behave as though the animal was no more than a collection of separate factors. On the contrary, they acted as though they were set to develop into a whole unified animal. For instance, if a piece were cut out, or even if the whole egg were cut in two at a very early stage, the parts might still form normal and complete individuals instead of just bits and pieces.

Thus at the beginning of the century biology was confronted with a paradox. On the one hand, the essential nature of an animal, as revealed by its heredity, was made up of a set of separate particles, and on the other hand it might behave in its development as though the important and determining thing were its unity and " wholeness."

Neither of these points of view sounds good ordinary common sense. I have already pointed out that the " particle " view is really rather odd if one tries to apply it to normal life. And the idea that the essential thing about an animal is its unity is so queer that some biologists felt that it could not be explained in material terms at all, and were led to imagine the wholeness as some sort of mystical developmental soul. The matter could not be left there, with biology falling between two stools neither of which looked at all comfortable to sit on. But it was a good twenty years before any hint of a solution began to come along.

It was in 1918 that Spemann, a German scientist,

discovered that in the newt's egg at a very early stage there is one part which controls the development of all the rest. It is known as the " primary organiser." The best way to allow it to show off its paces is to cut it out of one egg and graft it into a second, placing it in a region which would normally develop into the flanks or belly. This second egg has now two organisers, its own and the grafted one ; each of these organisers begins to develop into the central primitive backbone (notochord) of the young newt ; and the important and surprising thing is that they cause the cells surrounding them to develop into the remainder of the animal's body, so that the egg with the two organisers produces two complete embryos, joined together, of course, like artificial Siamese (or should it be Thailandic ?) twins.

Spemann's discovery does not apply only to newts. It is much more important than that. The discovery was first made in newts because their eggs are laid in water and are easy to get at. In other animals it is more difficult to do the necessary grafting experiments. However, ways have recently been found of keeping the very earliest stages of chicken and rabbit embryos in artificial cultures long enough to do the experiments, and I have been able to show that they also possess organisers. Luther in Germany and Oppenheimer in America did the same for fish. No one has done any work on reptiles, because their eggs are technically too difficult to handle, but there is little doubt that Spemannian organisers are responsible for the development of all backboned animals, including man.

The living organiser, that is to say the little lump of cells which we can cut out of an egg and graft somewhere else, has a strong tendency to produce a whole animal ; even quite a small piece of it can reconstitute itself so that a whole newt is formed. As soon as it was discovered that the wholeness of an embryo depended on the properties of the organiser it was possible to do

experiments (of cutting and grafting, etc.) to analyse how it worked. It immediately appeared that the production of a normal animal is not something which must happen completely or not at all. By the right manipulations, all kinds of partial or slightly abnormal animals can be produced. The wholeness of an animal is, in fact, the result of a balance between a number of different processes, which can be influenced separately.

For instance, the first part of the body which is formed under the influence of the organiser is the central nervous system, *i.e.* the brain and spinal column. But a complete and well-formed brain is not produced in a single process, like a rabbit out of a hat or a crystal out of a solution. It involves a number of different processes, and the organiser has to strike the correct balance between them. One of the processes, for instance, involves a substance known as the " evocator " which passes from the organiser into the surrounding cells and causes them to develop into nerve-cells. If the evocator acts alone, the resulting mass of nerve-cells is quite formless. In order that a normal brain shall be formed, the mass has to be moulded into the right shape by several other processes ; it becomes thicker in the neighbourhood of the muscle, and thinner over the primitive backbone (notochord) and so on. These processes modify one another and interlock in such a way that a normal shape is produced.

You will notice that in the last paragraph we have got back again to a viewpoint from which the animal appears as a set of separate things. But now these things are not static particles but dynamic processes ; processes of making tissues develop, of thickening or thinning them and so on. The paradox by which an animal is both a collection of distinct particles and yet is one single unity disappears if the hereditary particles are each responsible for starting some developmental process which can interact and interlock with other

processes. The same trend of thought, by which we have solved this difficulty, is characteristic not only of modern biology ; recent developments in physics have shown that the ultimate electrons and protons of which material things are made are not solid particles but are best thought of in terms of waves, that is to say, of processes of a particular rhythmic kind.

If we are going to use this solution of the paradox, we have really got to put processes first in our thinking about animals. Particles and substances are not the fundamental entities into which living things must be analysed : they are only important as parts of processes. It is much more difficult to think like this in actual fact than to say that we ought to do so. Most common-sense methods of picturing the world nowadays are based on the science of the seventeenth century. We " instinctively " think of solid lumps of stuff, and if they happen to be pushing one another around in some process, that may be interesting but is not essential. In twenty or fifty years' time, or however long it takes for to-day's science to become " common sense," we shall " instinctively " think of something going on. If we find it convenient to analyse it into lumps of matter bumping one another, well and good, but we shall not be surprised if someone else prefers to think of it in some other way.

This type of thinking, in terms of processes, is derived from a consideration of the most fundamental and basic properties of living things. We shall therefore have to use it for the ordinary everyday affairs of life as well as for recondite and far-away matters like the development of a newt's brain. We shall, for instance, realise that our friends are made up of a number of separate and perhaps conflicting traits. But we will not picture Smith's bad temper as a thing which he has, and which cannot fit into the same place as his kindness. We shall say that he often flies into a rage. This is not just an

opposite to feeling kindness for someone. They are not two *things*: they are two processes, which can occur one after the other, or which can both go on together, modifying each other as they do.

Even when we are dealing with groups of people instead of single individuals, we shall probably find that the "process" view is the most enlightening. We may give up trying to analyse our society into institutions, like the Church, the City, Industry, Agriculture, etc., or even into bodies of men, like the Industrialists, the Financiers, the Working Class, and so on. We are likely to think of it in terms of processes: of manufacturing, of selling, of influencing public opinion, etc.; or of the Class War; or of all working together for the common good. There will still be many kinds of politics; but politics in terms of processes and not of things.

It is clear that this kind of thinking is different from our present common sense. But I cannot tell you in detail what differences it will make in various fields. If I could, I should be making new discoveries all the time. I wonder whether the shifting of interest among painters from the material object to the underlying form—for instance, the painting of the *wind* in the trees rather than the trees themselves, or the creation of mobile sculpture by artists like Calder—is another part of the same trend as the scientist's movement away from analysing into things and towards analysing into processes? Whether that is a true parallel or not, at least it is certain that a new way of looking at all the phenomena of life is being produced by recent scientific advances, and will have to be incorporated into the general outlook of future generations. Working out its consequences will be a long task, which will require, not just a subtle new application of the old ways, but real imagination. It may be difficult, but it will certainly be interesting.

C. H. WADDINGTON, *World Review* (1941)

THE WAR

LENITIVES

"THE First Ray of light which illumined the gloom" of war-time came after three or four days of solid, unrelieved, so-called news, in the shape of a fourth leader in *The Times* written by an old friend and colleague. I have unblushingly stolen his title which sufficiently explains itself. The war is grim enough, heaven knows, and ubiquitous enough. How often on a fine day in some green and lonely place, when everything had seemed peaceful beyond words, has one given vent to one or other of the two most obvious possible reflections, "Who could believe?" or "If only!" Those two commonplaces are sad spoil-sports, but perhaps that is all the more reason for trying to remember gratefully some of the things that have made life more bearable. I say expressly "trying to remember" because it seems whole centuries since at the approach of a single unidentified plane on the morning of September 3rd the sirens wailed over the length and breadth of England, and we with our gas-masks and our dogs and our cats trooped down obediently into the cellar, and nothing whatever occurred and presently we came out again. If we live through the war, if we live to a hundred, that first scene will hardly appear more distant than it does now.

Many of our pleasures have either come wholly into being from force of contrast or have been at least greatly heightened by it. Take for instance the emotions of various kinds caused by the black-out. It has now become no more than a mild, routine nuisance, but we hated it bitterly to begin with. Was part of our hatred of it caused, if we probe it thoroughly, by an objection

to being ordered about? I cannot help thinking that it was, that the same mind which resents the sergeant-major telling one not to look like a corkscrew likewise resents the air-warden politely pointing out a cranny of light. Personally I hate being ordered about and I have always regarded this as a lamentable weakness due to vanity. There seem to be other people who dislike it from much higher motives, declaring that it is a dastardly undemocratic outrage on freedom of speech or freedom of action or freedom of anything else with a round turn in it. I sometimes suspect them of being solemn asses but I suppose they are really noble creatures. At any rate it is annoying to be told to do something. Yet there was exciting and rather predatory fun to be extracted from the first day of the black-out when my daughter and I made a privateering expedition into the nearest town in search of anything black that could be bought. It was her part to talk blandly to the young lady in the shop, mine to lean on the counter with my elbows upon any sable odds and ends which the lady produced and thus stand guard over them against the other shoppers. We returned home flushed with a modest triumph.

Again it may be urged on behalf of the black-out that it hastens pleasantly the coming of the snug and cosy hours, with the shutters in Manor Farm tight shut and Mr. Pickwick looking benignantly at the fire and saying, "This is indeed comfort." To many houses it has brought back that which romantic elderly persons love for the sake of their youthful memories, candlelight and lamplight. I am one of these, not from any deliberate seeking after romance, but from pedestrian necessity: we are living in a house where we make our own electric light and we have not the petrol to make enough of it. So we have one comparatively dazzling room and all the rest of the house is wrapped in the densest of shadow.

" There in yon brilliant window niche
How statue-like I see thee stand."

I need not say we have no brilliant window or our friend Mr. F. would be after us like a hundred of bricks from over the way, nor in fact have we any Helen ; but there was one in ancient days at Down, casting her light on the stairs and, very faintly, down a dark and awesome passage that might hold anything. I loved her and for her sake I almost love our twopenny lamp in the hall. Lamps are redolent of old times, and what pictures are not summoned up by the sudden feeling of hot wax upon the fingers ! There used to be a certain fine formality about candles and lamps. Anybody can turn on the electric light but a lamp suggests a processional stateliness and a butler coming in gravely at the appointed hour. We have branching candlesticks to light our dinner, though from economy we remain permanently two candles short, and on the stairs, the nearest approach to Helen is a black slave holding a humble night-light. One thing I could wish for is the little row of chamber candlesticks that used once to appear like so many silver mushrooms in the hall. To be the last up and pad silently through a silent house with just that one small flame to guard against the powers of darkness, was to enjoy the truly eerie. There is a drawing by Charles Keene in an old *Punch* which illustrates it poignantly. A stout, middle-aged gentleman in a dressing-gown is coming downstairs at midnight and his tassels, following him and tap-tapping on the stairs, are like ghostly footsteps in his wake. The beam from the candle lights up his face of horror and his hair standing on end. I have known that gentleman from my earliest years and often has he caused me to look over my shoulder and make an undignified rush of it to my bed at the end of the passage. Rightly were those words, " At the end of the Passage," chosen

as the name of one of the most horrific of stories. All the terror, all the opaqueness of the dark (when you can't find the matches) are in them. There are disadvantages : we are all rather apt to accuse each other of leaving the electric light on, forgetting the beam that is in our own room, and reading in bed demands a little skill in manœuvre. Still it is something to be translated into a region of sentimental memories and mysterious shadows.

" Can I get there by candlelight ?
Yes, and back again."

These are to be sure simple pleasures, but so must be all our war-time pleasures. There are journeys for instance. They are, if we regard them with a matter-of-fact eye, wholly and utterly detestable and yet I have gained a little perverted amusement out of them. One discovers on these journeys certain virtues of which one never suspected oneself, as after an hour or two of lateness blind fury melts into a sort of sprightly patience. There used only to be twenty-two stations between Shrewsbury and Aberdovey ; there are now twenty-five, and there was an odd satisfaction, a mortifying of the spirit not wholly unpleasant, in stopping at every one of them and counting them religiously. On the way back, naturally never quite so exciting as the way there, we stopped at them all again and had a little wait of two hours or so at Welshpool into the bargain, but there was a fire blazing half-way up the chimney and I read *The Three Clerks* with a passion that Trollope does not usually inspire. There is a certain feeling of noble endurance that can carry one through a good deal. I came down from London to Gloucestershire by an evening train just before Christmas and really stood amazed at my own moderation. I suppose we were not more than an hour and a half late at Swindon, where the light went out for an " alert " and we stood for apparent

hours, packed like herrings on the platform in a darkness so black that I had to tap for my bag like a blind man to see that it was there. Growing ever later and later I changed again at Kemble and waited more apparent hours and then, *then* a gentleman came round with a hurricane lamp and very leisurely examined all our tickets. A man in my carriage had not got a ticket but the gentleman with the lamp did not give him one; he sent him in the dark upstairs and downstairs to another platform to get one, while the train waited a little longer. It was at that point that I am proud to think I laughed, not a bitter sardonic laugh, but a ringing, light-hearted and boyish one. If my unfortunate family had not been waiting three hours for me with a car at Cirencester, by the light of a dying waiting-room fire, I could positively have wished that journey to go on still longer. It had become too good a joke to come to an end.

It is admittedly the kind of joke that must be impromptu, for, as Dr. Johnson remarked, "Nothing is more hopeless than a scheme of merriment." We had in Kent one entirely impromptu joke and journey combined. It was caused by a landmine which floated softly and silently down in the night and did not go off. The whole village was ordered to fly on the instant. The household was packed off in different directions and we with a minimum of luggage jumped into the car and set out into England in general or into the blue. Apart from getting away from the landmine, which grew larger by report the longer we dallied, we had a fine carefree vagabond feeling. Moreover, we had at least a vague plan. Some relations were at Hindhead and we would fling ourselves upon their charity and make them find us beds somewhere. I have, I believe, a certain gift for enjoying journeys and I rate this one high. As to the lunch at Dorking, it had positively magical quality. It was in fact a lovely day,

but had I been Tom Smart drowned and battered by the storm on Marlborough Downs and then introduced to dry slippers and dinner in a snug little parlour of the shingled inn, I could not have enjoyed it more. It was good childish fun too, when we got to Hindhead, to see through the glass door of his hotel one of the angels that was going to entertain us, unaware of his good fortune and fast asleep by the fire, to tiptoe up to him and observe his first reactions to this triple apparition. Of course there was not a bed to be had and how grandly did that hotel rise to the occasion, putting one on a drawing-room sofa here and another on a camp-bed there. The kindness and friendliness of people in such emergencies is one of the outstanding phenomena of war-time, and if innkeepers have some compensation for their bursting doors, that ought not to and does not lesson the gratitude of their unbidden guests. Even the oldest inhabitant of the inn, crowded out of his favourite chair in his sacred corner, is forgiving, and if he wants to kill us does not show it. The war has developed to its utmost limit the process known as " doubling up," and even that has its amusing side. The process of dressing or undressing, while somebody else like Hezekiah turns his face to the wall, becomes in itself an adventure. And after all, what is a little crumpling of the legs on an improvised couch that is only a foot or so too short? For a time, which admittedly must not be too long, there is something to be said for having, in Mr. Lowten's fine phrase, " got the key of the street."

There have been other war-time journeys that have given me a childish pleasure, namely those in coaches. Will it be believed that I was such an innocent that I had never before travelled by coach? An innocent I truly felt when dumped down in a large depôt with a good deal of luggage to carry, coaches on every side of me and no two people having the same views in

answer to my timid inquiries as to where they went. I suppose that the hardened traveller has no need to ask, but knows his coach to be red or blue

"or barred with black
And yellow, like the April bees,"

but, to those who do not know, it is at first unquestionably alarming. However, this terror wears off, and there is about the journey what no train can afford, a Pickwickian romance, from the putting of one's bag in the boot, where once was stowed Mr. Peter Magnus's leather hat-box, to the driver shouting with some irritation for "the two stout gentlemen," just as he did when Mr. Pickwick and Mr. Tupman got down for a glass of ale. The country is so much nearer to us in a coach and the road, instead of that line of metals gleaming for ever straight ahead, takes so many sudden and agreeable twists down a lane and into a village. Seen from a train, save when it stops, the country is nameless, and curiosity is comparatively dormant, but in a coach it is wideawake ; the traveller wants to know who lives in the house behind those imposing stone gates or whether it is market day. If only we were allowed a box seat by the driver what a delightful and instructive conversation we might have ; but, fortunately no doubt for him, he is cut off from us by a glass partition on the other side of which we can watch him dealing in an Olympian manner with a cigarette.

One more journey I must thank heaven for, though I did not go on it. It was the journey of the van which some months after our flight brought us one cat, four ducks, twelve hens, and a number of inanimate objects from which we had been parted. There were old books, old clothes, and if it be not flippant to mention them, old ties, and my ties and I may be said to have rushed into one another's arms. There was the tie I had worn

"That day I overcame the Nervii,"

and the one that it is essential to wear on the journey to Aberdovey, and the one—well, in short, there were a great many old friends, some dirty but all dear. I had been starved for Dickens too and had to live on nothing but a *Pickwick* and an *Oliver Twist* for several months. That is rationing carried to excess.

Yet even rationing has something to be said for it and like railway travelling develops hitherto latent qualities. There is that of saving, for instance, which is fostered and encouraged by the rationing of butter, and here let me interpolate a plea for honest selfishness in this matter which will be found by far the best policy. If the family butter for a week is put into one common stock there will inevitably ensue those contests in unselfishness—"You have it," "No, you have it," "But I don't want it," and so on—which are utterly prostrating. In the meantime, as the altruists rage amiably together, the butter wastes its sweetness. The only possible plan is for each member of the family to have his own little ration in his own little pot of a particular colour, and deal with it as he thinks best. If he prefers dry toast in order to have butter with his potatoes in their jackets at Sunday supper, that is entirely his own affair. If he prefers occasional orgies, he must at other times smart in the fires of abstinence. The one thing that he must avoid is the becoming an object of charity to joyous martyrs at the end of the week. This admirable system, while rightly discouraging martyrdom, does encourage economy to the point of miserliness. Is there perhaps something in the colour of butter suggesting the gold which the miser loves to pour through his fingers? Even as Pip and Joe Gargery used to hold up their pieces of bread and butter to compare their bites, so rival misers will compare the crags of butter towering in their respective pots. There is a malign satisfaction in having the bigger pinnacle of the two and in reflecting that, if one has to spend

the whole of the next day away from home, the disparity will be gloriously increased. If this economy run mad were only the precursor of an unctuous feast on the last day it would not be so bad ; but once miserliness has been absorbed into the system, the fun only begins with the end of the week and the carrying forward of a solid nest-egg of gold into the next one, and so on for ever in an endless and vicious chain.

I must candidly confess that never have I enjoyed butter so much as I have since becoming a butter miser; but now jam is rationed too and that is another matter, for the one fatal thing to do with jam is to fall " into the vulgar error of not taking enough. I like to see a large piece of jam on a very small piece of bread and, as they used to say in Divisional or Army orders, " this practice will cease." Nor is that the worst, for shortage of jam discovers in us vices which we had always believed to be virtues. I have always been proud of my affection for rice pudding, yes and for sago, tapioca, and semolina. Now I see myself for what I really am. I loved them only for the sake of the strawberry jam, and much the same must be said of the fine, simple old English dish called treacle pudding or golden roll. Who would have thought that so much depended on having a free hand with the treacle spoon or that suet unadorned could be so arid and repellent? It is hard too not to whimper in the strictest privacy over cheese. Think of the rich mottled green and lovely veinings of Stilton, the blue of blue Cheshire, the orange-tawny of Double Gloucester. All these are now no more and we have come down to what only by the most poetic licence can be termed the pale primrose of the common mouse-trap. And yet the mouse-trap, nibbled slowly, thoughtfully, and gratefully, is very good and there is a satisfaction of " going without," and after all one might be a yellowhammer who constantly proclaims his sad plight : " a little bit of bread and no cheese."

These joys and sorrows are all childish and it is, I think, one of the results of war-time that it makes people feel younger unless, alas! it makes them feel older. To be physically disabled is to have dashed from the lips that elixir which has rejuvenated so many. It is a magical draught as I remember very well from the last war, not so much from my time in the Army as from the first months when I was a volunteer in the Old Boys Corps and joined in exciting evolutions around Harrow and Wembley. Once we marched out of London with a band leading the way and an old lady asked one of us whether we were the Scots Guards. I am afraid she must have had a malignant sense of humour although she looked innocent enough. At any rate we took her at her word, feeling that we were what inspecting officers invariably called us, "a fine body of men," and not one of us over twenty-five. It was no doubt this same feeling of the young blood surging back into our veins that made us behave extremely ill when we manœuvred on a golf course, sniggering at old gentlemen when they missed their putts and even counting one, two, three, not too audibly I trust, as they executed their ornate waggles.

That is all over now, but it was with a fellow feeling, if with a little pardonable envy, that I read the other day a despatch in *The Times* from a correspondent in Alexandria. I am revealing no secrets but I am making a very good guess from internal evidence as to who wrote it. I "rayther suspect" that it was my old friend Captain R. C. Lyle, who has been my Sporting Editor for years, and whose voice is familiar to thousands as he sends old ladies blushing away from the wireless by proclaiming of the Derby that it is the hell of a race. The passage that so pleased me declared that "Old dug-outs past fifty have taken up hockey again and play three times a week." That was most reviving to the spirits, and yet, even while I rejoiced over such heroism,

I doubted and still doubt whether the writer was wholly ingenuous. I simply do not believe that he played three times in his first week, because he would for a while have been far too stiff to move. My disbelief is founded on a painful experience of my own in the last war when I was not over fifty but over forty. At the Ordnance Base Depôt at Salonica sports were to be held and among other events was an Officers' Relay Race, in teams to be made up from the various small tables in the mess, starts being awarded strictly according to age. There were four of us at my table all reasonably old and reasonably able-bodied, and with a handicap we made sure we could win by untold yards. So I have no doubt we could have done had we not tried to make too sure. With great secrecy we repaired to the Vardar marshes for a little practice and proceeded to run a race of some seventy or eighty yards. One member of the team had run the hundred for Edinburgh University: he was our champion, but he did not run up to form and another of us beat him by a short head. Naturally he was not satisfied and we had another race. I am not sure that intoxicated by our youthful exuberance we did not have a conqueror. We returned to the depôt more certain than ever of our triumph, and next morning, like the Assyrian, we were "withered and strown"; no one of us could even walk without agony. Even so we might almost have won if I had not at the crucial moment insisted on pressing the baton upon a member of another team: but the real harm had been done two days before. Had it not been for that indiscreet practice nobody would have seen us for dust, and I am grossly deceived if Captain Lyle could run very fast for several days after his first gallant game of hockey. Still the fact that he says he did has cheered us all up; I only wish I had half his complaint.

BERNARD DARWIN, *Pack Clouds Away* (1941)

THE CRASH

SEPTEMBER 3rd dawned dark and overcast, with a slight breeze ruffling the waters of the Estuary. Hornchurch aerodrome, twelve miles east of London, wore its usual morning pallor of yellow fog, lending an added air of grimness to the dimly silhouetted Spitfires around the boundary. From time to time a balloon would poke its head grotesquely through the mist as though looking for possible victims before falling back like some tired monster.

We came out on to the tarmac at about eight o'clock. During the night our machines had been moved from the Dispersal Point over to the hangars. All the machine tools, oil, and general equipment had been left on the far side of the aerodrome. I was worried. We had been bombed a short time before, and my plane had been fitted out with a new cockpit hood. This hood unfortunately would not slide open along its groove; and with a depleted ground staff and no tools, I began to fear it never would. Unless it did open, I shouldn't be able to bale out in a hurry if I had to. Miraculously, " Uncle George " Denholm, our Squadron Leader, produced three men with a heavy file and lubricating oil, and the corporal fitter and I set upon the hood in a fury of haste. We took it turn by turn, filing and oiling, oiling and filing, until at last the hood began to move. But agonisingly slowly : by ten o'clock, when the mist had cleared and the sun was blazing out of a clear sky, the hood was still sticking firmly half-way along the groove ; at ten-fifteen, what I had feared for the last hour happened. Down the loud-speaker came the emotionless voice of the controller : " 603 Squadron take off and patrol base ; you will receive further orders in the air : 603 Squadron take off as quickly as you can, please." As I pressed the starter and the engine roared into life, the corporal stepped back and crossed

his fingers significantly. I felt the usual sick feeling in the pit of the stomach, as though I were about to row a race, and then I was too busy getting into position to feel anything.

Uncle George and the leading section took off in a cloud of dust ; Brian Carbury looked across and put up his thumbs. I nodded and opened up, to take off for the last time from Hornchurch. I was flying No. 3 in Brian's section, with Stapme Stapleton on the right : the third section consisted of only two machines, so that our Squadron strength was eight. We headed south-east, climbing all out on a steady course. At about 12,000 feet we came up through the clouds : I looked down and saw them spread out below me like layers of whipped cream. The sun was brilliant and made it difficult to see even the next plane when turning. I was peering anxiously ahead, for the controller had given us warning of at least fifty enemy fighters approaching very high. When we did first sight them, nobody shouted, as I think we all saw them at the same moment. They must have been 500 to 1000 feet above us and coming straight on like a swarm of locusts. I remember cursing and going automatically into line astern : the next moment we were in among them and it was each man for himself. As soon as they saw us they spread and dived, and the next ten minutes was a blur of twisting machines and tracer bullets. One Messerschmitt went down in a sheet of flame on my right, and a Spitfire hurtled past in a half-roll ; I was weaving and turning in a desperate attempt to gain height, with the machine practically hanging on the airscrew. Then, just below me and to my left, I saw what I had been praying for—a Messerschmitt climbing and away from the sun. I closed in to 200 yards, and from slightly to one side gave him a two-second burst : fabric ripped off the wing and black smoke poured from the engine, but he did not go down. Like a fool, I did not break

away, but put in another three-second burst. Red flames shot upwards and he spiralled out of sight. At that moment, I felt a terrific explosion which knocked the control stick from my hand, and the whole machine quivered like a stricken animal. In a second, the cockpit was a mass of flames : instinctively, I reached up to open the hood. It would not move. I tore off my straps and managed to force it back ; but this took time, and when I dropped back into the seat and reached for the stick in an effort to turn the plane on its back, the heat was so intense that I could feel myself going. I remember a second of sharp agony, remember thinking " So this is it ! " and putting both hands to my eyes. Then I passed out.

When I regained consciousness I was free of the machine and falling rapidly. I pulled the rip-cord of my parachute and checked my descent with a jerk. Looking down, I saw that my left trouser-leg was burnt off, that I was going to fall into the sea, and that the English coast was deplorably far away. About twenty feet above the water, I attempted to undo my parachute, failed, and flopped into the sea with it billowing round me. I was told later that the machine went into a spin at about 25,000 feet and that at 10,000 feet I fell out —unconscious. This may well have been so, for I discovered later a large cut on the top of my head, presumably collected while bumping round inside.

The water was not unwarm and I was pleasantly surprised to find that my life-jacket kept me afloat. I looked at my watch : it was not there. Then, for the first time, I noticed how burnt my hands were : down to the wrist, the skin was dead white and hung in shreds : I felt faintly sick from the smell of burnt flesh. By closing one eye I could see my lips, jutting out like motor tyres. The side of my parachute harness was cutting into me particularly painfully, so that I guessed my right hip was burnt. I made a further

attempt to undo the harness, but owing to the pain of my hands, soon desisted. Instead, I lay back and reviewed my position : I was a long way from land ; my hands were burnt, and so, judging from the pain of the sun, was my face ; it was unlikely that anyone on shore had seen me come down and even more unlikely that a ship would come by ; I could float for possibly four hours in my Mae West. I began to feel that I had perhaps been premature in considering myself lucky to have escaped from the machine. After about half an hour my teeth started chattering, and to quiet them I kept up a regular tuneless chant, varying from time to time with calls for help. There can be few more futile pastimes than calling for help alone in the North Sea, with a solitary seagull for company, yet it gave me a certain melancholy satisfaction, for I had once written a short story in which the hero (falling from a liner) had done just this. It was rejected.

The water now seemed much colder and I noticed with surprise that the sun had gone in though my face was still burning. I looked down at my hands, and not seeing them, realised that I had gone blind. So I was going to die. It came to me like that—I was going to die, and I was not afraid. This realisation came as a surprise. The manner of my approaching death appalled and horrified me, but the actual vision of death left me unafraid : I felt only a profound curiosity and a sense of satisfaction that within a few minutes or a few hours I was to learn the great answer. I decided that it should be in a few minutes. I had no qualms about hastening my end and, reaching up, I managed to unscrew the valve of my Mae West. The air escaped in a rush and my head went under water. It is said by people who have all but died in the sea that drowning is a pleasant death. I did not find it so. I swallowed a large quantity of water before my head came up again, but derived little satisfaction from

it. I tried again, to find that I could not get my face under. I was so enmeshed in my parachute that I could not move. For the next ten minutes, I tore my hands to ribbons on the spring-release catch. It was stuck fast. I lay back exhausted, and then I started to laugh. By this time I was probably not entirely normal and I doubt if my laughter was wholly sane, but there was something irresistibly comical in my grand gesture of suicide being so simply thwarted.

Goethe once wrote that no one, unless he had led the full life and realised himself completely, had the right to take his own life. Providence seemed determined that I should not incur the great man's displeasure.

It is often said that a dying man re-lives his whole life in one rapid kaleidoscope. I merely thought gloomily of the Squadron returning, of my mother at home, and of the few people who would miss me. Outside my family, I could count them on the fingers of one hand. What did gratify me enormously was to find that I indulged in no frantic abasements or prayers to the Almighty. It is an old jibe of God-fearing people that the irreligious always change their tune when about to die : I was pleased to think that I was proving them wrong. Because I seemed to be in for an indeterminate period of waiting, I began to feel a terrible loneliness and sought for some means to take my mind off my plight. I took it for granted that I must soon become delirious, and I attempted to hasten the process : I encouraged my mind to wander vaguely and aimlessly, with the result that I did experience a certain peace. But when I forced myself to think of something concrete, I found that I was still only too lucid. I went on shuttling between the two with varying success until I was picked up. I remember as in a dream hearing somebody shout : it seemed so far away and quite unconnected with me. . . .

Then willing arms were dragging me over the side ;

my parachute was taken off (and with such ease !) ; a brandy flask was pushed between my swollen lips ; a voice said, " O.K., Joe, it's one of ours and still kicking ; " and I was safe. I was neither relieved nor angry : I was past caring.

It was to the Margate lifeboat that I owed my rescue. Watchers on the coast had seen me come down, and for three hours they had been searching for me. Owing to wrong directions, they were just giving up and turning back for land when ironically enough one of them saw my parachute. They were then fifteen miles east of Margate.

While in the water I had been numb and had felt very little pain. Now that I began to thaw out, the agony was such that I could have cried out. The good fellows made me as comfortable as possible, put up some sort of awning to keep the sun from my face, and phoned through for a doctor. It seemed to me to take an eternity to reach shore. I was put into an ambulance and driven rapidly to hospital. Through all this I was quite conscious, though unable to see. At the hospital they cut off my uniform, I gave the requisite information to a nurse about my next of kin, and then, to my infinite relief, felt a hypodermic syringe pushed into my arm.

I can't help feeling that a good epitaph for me at that moment would have been four lines of Verlaine :—

Quoique sans patrie et sans roi,
Et très brave ne l'étant guère,
J'ai voulu mourir à la guerre.
La mort n'a pas voulu de moi.

RICHARD HILLARY, *The Last Enemy* (1942)

MALTA CONVOY

THE object of this operation was clear-cut and straightforward—the relief of Malta, the only base from which really effective steps could be taken to destroy Rommel's supplies from Italy and so prevent his building up an overpowering force against our Eighth Army. But there was another point, and a much more personal one. Malta, during the course of many years, has become the Navy's second home, and now in her hour of need everyone felt it a great privilege to be going to her aid. And then again there was the additional incentive that we in the Navy would be shepherding the men and ships of the Merchant Navy, through what was obviously going to be a most critical period; a period during which it was a foregone conclusion that the enemy would throw in all his forces and attack our ships with every available bomber, torpedo aircraft, U-boat, and surface warship he could lay his hands on, in an effort to stop those ships reaching their destination. Admiral Syfret in H.M.S. *Nelson* was in command of the whole operation, Admiral Lyster in command of the aircraft-carriers, and Admiral Burrough in command of the close escort of cruisers and destroyers which were going to make the final dash through to Malta.

During the Sunday forenoon before we entered the Mediterranean, divine service was held—a very simple service, asking for help and guidance during the next few days. At its conclusion " God Save the King " was sung as I have never heard it sung before. That night we slipped through the Straits of Gibraltar with the lights of Spain twinkling away to the northward, and the lights of Tangier to the south. First the leading ships of the destroyer screen, then the convoy with its escort of cruisers and destroyers, closely guarded by battleships; and immediately astern, the aircraft-carriers which were to provide that essential fighter

protection. By first light we were well to the eastward of Gib, but as the sun rose one could still see the silhouettes of the mountains of Spain rising out of the mist, with the white cottages of a little village perched away up amongst the peaks.

That Monday, nothing. We were still out of range of the nearest enemy aerodromes. So we were on the following forenoon. But suddenly the peace was shattered. It was so sudden, it almost took one's breath away. I had just been taking a casual glance round the fleet through my binoculars, and they had rested for some time on a ship in which I had spent two of the happiest commissions of my life—the *Eagle*.. Suddenly a great brown column of water rose from her side to about three times the height of her topmast. Then almost immediately another column, and a third. *Eagle* had obviously been hit by a salvo of torpedoes. She was an old ship, and the salvo of torpedoes, either three or four, was too much for her and she listed rapidly, with aircraft slipping off her flying deck into the sea. Soon—almost before one could believe it was true—she had gone. Admittedly, she was a lot older than the other carriers in this operation, but don't let us for a moment try to minimise her loss. That U-boat captain had done a startling and daring piece of work, and in getting home his salvo of torpedoes he had robbed us at the outset of a most valuable carrier and her vitally important fighters. For a long time everyone was very quiet and subdued and—when later in the afternoon we received a report of enemy aircraft approaching—there was a general sigh of relief at the chance of getting to grips and avenging her.

As the carriers turned into wind and the fighters took off to intercept, every one of those Fleet Air Arm pilots was more determined than ever. From now on they were at it continuously, but, of course, mostly out of sight. Personally, I only saw one air combat and that

well on the horizon. It was between a Martlet fighter and an Italian snooper. The Martlet's first dive produced a trail of smoke from one engine, and the next sent the snooper hurtling into the sea. That was all I saw, but the known results of 39 enemy aircraft shot down by the Fleet Air Arm, and the raggedness of some of the enemy formations which did get through, made all too clear what those gallant young naval pilots were doing for us during that critical period.

The aircraft which did get through that evening were mostly German Ju. 88s and Italian torpedo droppers. By the time the attack had developed, the sun was setting in a big red glow, and the barrage put up by our ships was one of the most staggering things I have ever seen : tracers screaming across the sky in all directions, and overhead literally thousands of black puffs of bursting shells. The din was terrific, but through it all you could hear the wail of sirens for an emergency alteration of course to avoid torpedoes, and the answering deep-throated hoots of the merchantmen as they turned in perfect formation. Then suddenly, a cheer from a gun's crew, and away on the port bow a Ju. 88 spinning vertically downwards with both wings on fire and looking like a giant catherine wheel. More cheers, and over to starboard another 88 was diving headlong for the sea, with smoke pouring out behind. At about five hundred feet the automatic pull-out came into action, and she flattened out and crashed on her belly with a great splash of water. Against the sunset you could see the parachutes of her crew as they drifted slowly downwards. And so it went on, right up to darkness; the gunfire never easing up for a moment, and great columns of water as bombs dropped between the ships.

My last impression that evening was a Ju. 88 who made an attack astern of us. He found himself committed to making a get-away over the Fleet, and he started making steep turns this way and that in a frantic effort

to avoid the tracers which were screaming up at him from all directions. For a short time, by some miracle, he got away with it, but before long we were steaming past a burning patch in the water, where he had crashed in. As the terrific gunfire suddenly subsided, the comparative silence of the night was almost uncanny, and there had been no damage to any of our ships. That was Tuesday.

Next morning, our Fleet Air Arm fighters were off again at crack of dawn, and throughout the day they were almost continuously in the air, as formation after formation came in to attack. I will not attempt to describe that day in detail, because one attack after all is so much like another, but through it all—through the colossal din, the great mushrooms of water as bombs dropped, the blinding flashes of our guns and the thousands of flashes of those from other ships—through all that and many other things, I am left with one main impression: those merchantmen in the middle, going steadily on and on, at times completely hidden by near misses, but miraculously appearing through the columns of spray and always doggedly and stubbornly going on and on.

At about a quarter to eight that evening there was a welcome lull in the air attacks. Remember that everyone in those ships had been fighting almost continuously since daylight, and apart from the heat of battle there had been the gruelling heat of the Mediterranean sun. Now, in the temporary lull, men slipped off their anti-flash helmets and gloves and seized the opportunity of cooling off. The ship's cat came out from her hiding-place and gave her five kittens a much-needed meal.

Some of us had gone down for a moment to the navigator's sea cabin. Suddenly there was a flash, a terrific explosion, and complete darkness, as the lights and most other things were shattered. A U-boat had got a torpedo home on us. The ship immediately

started to list, and as we groped our way to the door and forced our way out through the fumes, the ladders were already well over at an angle. By the time we reached the bridge, Admiral Burrough and the Captain were leaning across the starboard side, looking rather like yachtsmen at the tiller of a boat heeling well over to a fresh breeze. Some of the ship's company were already grouping on the upper deck in the most orderly fashion, and, as they did so, they looked up to the bridge for orders. There was never a sign of panic, but the ship was assuming a somewhat alarming angle, and the memory of the *Eagle* was still fresh in our minds. But any doubts anyone may have had were immediately removed by the Admiral. "Don't worry, she'll hold," he shouted. "Let's have a cigarette." Whatever momentary effect that great explosion may have had on a few was removed in a flash by that casual remark. From that moment everything in that ship was carried out like an ordinary peace-time exercise. Meanwhile, a destroyer had been signalled alongside. As she approached, Admiral Burrough shouted to the ship's company: "I hate leaving you like this, but my job is to go on and get that convoy to Malta, and I'm going to do that whatever happens." There were immediate shouts from volunteers wanting to go on with him. Those sailors had so set their minds on seeing the convoy through. The Admiral shook his head: "No, your job," he said, "is to stop here and try and get your own ship safely home."

As the Admiral and one or two of us moved over to the destroyer *Ashanti*, a Stuka dive-bombing attack developed, and the scene as we left in the evening light was one I shall never forget—Stukas roaring down, the bombs dropping, the air heavy with fumes from the recent explosion, the guns of both ships firing upwards —and as the gap between us widened, sailors on the sloping deck cheering their Admiral and wishing him

good luck. It was a sad but nevertheless great moment. The Stuka attack, which was raging in all its fury by now, was obviously being carried out by their picked pilots or, as we called them, the first eleven, and personally I found this the most unpleasant moment of the whole operation. The cruiser *Cairo* was settling rapidly by the stern. A merchant vessel which had been hit was burning fiercely, a gigantic pall of smoke rising up into the sky. There were other patches of flames where aircraft had crashed, and as the darkness closed down and gave us temporary relief from more air attacks, there was a disconcerting thought that that same darkness would be providing cover for the E-boats and U-boats which we knew would be lurking near Cape Bon, which we had to pass before daylight.

It was not long before the trouble started. A flicker in the darkness from a careless torch gave away an E-boat. Searchlights immediately pierced the night; star shells were fired, and as they floated down on the E-boats, guns flashed and tracers whistled through the night. During the course of these night attacks, the cruiser *Manchester* was hit by mines or torpedoes and later had to be sunk. Neither did the convoy get through unscathed. On the credit side, at least two E-boats were blown out of the water. It was an ugly uncomfortable night and I must confess to a sigh of relief as dawn broke.

The relief was short-lived, for almost with the first streaks of Thursday's light, back came the dive-bombers and torpedo-droppers in a final desperate effort to get the convoy on its last lap. By now Beaufighters from Malta were there to help us. Later, as we got nearer the island, we came within the comforting range of her Spitfires, and no praise could be too high for those R.A.F. pilots in their efforts to drive off the enemy on that desperate last lap. All that morning there were non-stop attacks, and then at last, in the early afternoon,

a look-out gave the welcome shout of ships in sight ahead. These were the minesweepers and motor-launches from Malta who were to take the merchantmen into harbour. Our job over, " good luck " signals were exchanged between escort and convoy before we turned to make the passage back to Gib. One merchant captain replied : " Thanks to your care and a smile from the Goddess of Luck, we have reached Malta." Somehow, at that moment, a smile seemed such a glorious under-statement ! Of the journey back there is little to be said. Incessant air attacks all that afternoon : E-boat and submarine attacks at night and continuous air attacks from daylight the next day, finishing off with a last tremendous effort in which they threw in all their elevens and most of their spare men. But in spite of all their efforts, not one ship was damaged during the passage home.

When eventually the Rock of Gibraltar was sighted it was almost a week since we had last slipped through those Straits, but somehow it felt a great deal longer. So much had happened that it is all rather confused and blurred now ; but one or two incidents seem to stand out : a merchant ship being sunk, and a rather part-worn canary, which a kind owner had obviously released from its cage, taking refuge in our ship. A destroyer captain in grey flannel trousers, a light blue shirt, and a large panama hat, sitting behind his compass with his feet perched up and looking for all the world as if he were happily driving a tractor, harvesting ; but actually driving his destroyer through dive-bombing attacks as only a great seaman can, cool as a cucumber, watching every move in the air and, as the bombs whistled down, giving a crisp order to the bearded coxswain below, and in the nick of time the ship heeling over with bombs dropping harmlessly to one side. The constant stream of Fleet Air Arm fighters taking off from their carriers, fighting their battles, landing,

refuelling, and off again. The men down below in the boiler rooms and engine rooms : not stripped to the waist as they like to be, but sweltering in their anti-flash gear and lifebelts, some of them even fainting as they were overcome by the colossal heat. Never forget those great heroes who work down below : but for them no ship could ever fight. A little Cockney seaman, near the gun position. Above the general din, a near miss blasts signal pads and other papers off the bridge. As they float down over our gun position, the little Cockney looks up : " Blimey, now they've started a leaflet raid."

And finally, those merchantmen going stolidly on and on—never faltering, never wavering when one of their comrades was lost—stolidly on and on ; and although it seems invidious to draw attention to any one of so gallant a party, I simply must do so. She had been uppermost in our thoughts from the moment we sailed, for she was a tanker carrying the most important and most dangerous cargo of all, and so very conspicuous from the air with her funnel right aft. Her name was *Ohio*, an American-built ship manned by a British crew, skippered by a very great man called Captain Mason. It was obvious that she would be a special target for the enemy, and sure enough she was hit by a torpedo at the same time as we were.

She was forced to stop, and later, as we went up alongside in the *Ashanti*, another merchantman was blazing not far off. It was that night when things weren't looking too good. Admiral Burrough hailed her from our bridge, " I've got to go on with the rest of the convoy. Make the shore route if you can and slip across to Malta. They need you badly." The reply was instantaneous. " Don't worry, sir ; we'll do our best. Good luck." By next morning, by some superhuman effort, they had got the engines going and had caught us up in spite of having lost their compass

and having to steer from aft. She then took station on our quarter, and *Ohio*'s next bit of trouble was when a Stuka attacking us was hit fair and square and crashed right into her.

For the rest of the forenoon she was always picked out for special attention, and time and time again she completely disappeared amongst the clouds of water from bursting bombs. But again and again she came through. Then at last one hit her. She was set on fire, but after a terrific fight they managed to get the flames under control. Her engines had been partly wrecked, but she just managed to make two knots and plodded on. Destroyers were left to look after her, but later she was hit again and her engines finally put out of action. Then they took her in tow, but the tow parted. During the night, with the help of a minesweeper from Malta, they got her a further twenty miles. All next day she was again bombed continuously and towing became impossible. But that night she reached Malta. If ever there was an example of dogged perseverance against all odds, this was it. Admiral Burrough's last signal to *Ohio* was short and to the point : " I'm proud to have met you."

Well, there it is. You have heard in the news of the numbers of enemy aircraft shot down and the numbers of U-boats and E-boats sunk. You have heard about our own warship losses, but after all losses must be expected when you are fighting all that time on the enemy's doorstep, and every one, believe me, went in with their eyes wide open. All that mattered was that supplies had got to be got through to Malta—and they were.

COMMANDER ANTHONY KIMMINS,
The Listener (1942)

THE NAKED FLAME

"FIRE is so familiar that it scarcely needs definition. . . ." So says the *Encyclopaedia Britannica* with the first words of its treatise on the ubiquitous, elusive element that burns our hands and bemuses our power of literary description. Fire is so familiar, fire is everywhere to be seen. Fire needs no definition. This is one reason why it is so difficult to define.

Its chemical definition is simple. The difficulty lies rather in the translation of fire into the imagination through such normally expedient channels as canvas and the written word. Fire is so familiar that its vocabulary—fire, flame, burning, blaze, etc.—has lost its dramatic significance. Fire is an element, and therefore again difficult of explanation. Fire, as an element, is a first source of light, heat, and force—and perhaps this quality most of all makes its accurate description almost impossible.

Painters deal with reflected light. They seldom attempt the task, realistically or analytically, of painting a source of light. Painters never paint the sun, or the moon, or a fire—unless perhaps when the shapes are to be reproduced symbolically: or if they do attempt these things then the result is invariably insufficient. However, painters do always deal with reflected light. Sunlight, moonlight, firelight. Such a passionate colourist as van Gogh painted splendidly his interest in a certain slant of the sun's rays on a selected landscape —yet in the corner of the picture van Gogh was content to brush, humbly, a simple circle of white to represent the indefinable sun itself. Misty Turner, with his gift for the decisive indecisive, might have seemed the man to set about this job. But when he painted the fire at the Houses of Parliament, the painting of reflections of the fire's light was alone important. And of contemporaries, the firemen artists who have recorded

fire-scapes of this war have, to my mind, failed invariably to convey enough in their treatment of direct flames: though several—for example Rosoman—have translated extremely well the emotions of reflected light.

A writer confronts the same problem. Can he recreate for the reader the shape, colour, movement, and emotional presence of the flame itself? Or would he better use indirect means to convey his situation of fire? Well . . . since there is always history, we might see what has already been done and read again the sort of thing a few random writers have achieved in describing what Leigh Hunt assesses as "The most tangible of all visible mysteries."

Mr. Pepys writes of the Great Fire of London: ". . . and there upon the water again, and to the fire up and down, it still increasing and the wind great. So near the fire as we could for smoke; and all over the Thames, with one's face in the wind, you were almost burned with a shower of fire-drops. This is very true; so as houses were burned by these drops and flakes of fire, three or four, nay, five or six houses, one from another. When we could endure no more upon the water, we to a little alehouse on the Bankside, over against the Three Cranes, and there stayed till it was dark almost, and saw the fire grow; and, as it grew darker, appeared more and more, and in corners and upon steeples, and between churches and houses, as far as we could see up the hill of the City, in a most horrid, malicious, bloody flame, not like the fine flame of an ordinary fire. Barbary and her husband away before us. We stayed till, it being darkish, we saw the fire as only one entire arch of fire from this to the other side the bridge, and in a bow up the hill, for an arch of above a mile long: it made me weep to see it. The Churches, houses, and all on fire, and flaming at once; and a horrid noise the flames made, and the cracking of houses at ruin. So home with a sad heart. . . ."

Where is Pepys' description most fiery? In his grand landscape of direct fire—" the most horrid, malicious, bloody flame " and " the entire arch of fire " ? Or in his more intimate analysis of the effects (reflections) of the fire—" face in the wind, you were almost burned with a shower of fire-drops " ?

From John Evelyn's Diary of the same date : " Oh, the miserable and calamitous spectacle ! such as haply the world had not seen since the foundation of it, nor can be outdone till the universal conflagration thereof. All the Sky was of a fiery aspect, like the top of a burning oven, and the light seen above forty miles round-about for many nights. God grant mine eyes may never behold the like, who now saw above 10,000 houses all in one flame ! The noise and cracking and thunder of the impetuous flames, the shrieking of women and children, the hurry of people, the fall of towers, houses and churches, was like a hideous storm ; and the air all about so hot and inflamed, that at the last one was not able to approach it, so that they were forced to stand still, and let the flames burn on, which they did, for near two miles in length and one in breadth. The clouds also of smoke were dismal, and reached, upon computation, near fifty miles in length. Thus, I left it this afternoon burning, a resemblance of Sodom, or the last day."

How much of this fiery aspect sufficiently evokes a real sensation of fire? Perhaps the metaphor—" like the top of a burning oven " ? Or the fact that the very air was hot and inflamed, which seems satisfactorily to provoke the most disagreeable vision of a combustible atmosphere, of flame pouring down into the lungs, of the fundamental free air denied—the basis of our claustrophobic fear of poison gas? Or, in a later passage, when Evelyn discards his universal conflagration and describes : " the stones of St. Paul's flew like grenados, the melting lead running down the streets in a stream,

and the very pavements glowing with fiery redness, so as no horse, nor man, was able to tread on them. . . ."

Are not these effects of fire hotter than the use of "impetuous flames," when he tries to describe fire directly? In fact, do not the above three short excerpts fail once only—in the phrase "fiery redness," which conveys far less than would the word "hot," just "hot pavements"?

There was a famous fire in Tooley Street, London, which was reported in the contemporary *Times* of June 24, 1861: "The north side of the Thames, with all its massive buildings, seemed red hot in the dreadful light, while on the south the glare and heat from the blazing ruins seemed almost blinding . . . when Hay's wharf was included the river sweep of the conflagration must have been 300 yards, with a deep foreground of blazing oil and tallow."

Reading this, I obtain some pretty idea of pyrotechnic display—but I do not for a moment sense real fire. Only perhaps I do when the journalist uses "blazing" in juxtaposition to "oil and tallow." For these are other textures, fatty and wet, and complement the banal "blaze" with a potential of spitting fire that I know lies stored in these oils and tallows. In the same way Pepys improves his atmosphere with "But strange it was to see the Clothworkers' Hall on fire these three days and nights in one body of flame, it being the cellar full of oil."

And in another way, when the material burnt has no fierce potential but contrarily is tender, as tender as the flesh on the reader's own face. Again, Pepys: "And, among other things, the poor pigeons, I perceive, were loath to leave their houses, but hovered about the windows and balconies, till they burned their wings, and fell down."

The fireman will appreciate a passage from Rilke's *Diary of Malte Laurids Brigge* where he describes an

experience of conflagration that is not fire itself, but is darkly part of the taut atmosphere of large fires : " These are the noises. But there is something here that is more terrible : the silence. I believe that in the course of great conflagrations there sometimes occurs a moment of extreme tension : the jets of water fall back ; the firemen no longer mount their ladders : no one stirs. Noiselessly a black cornice thrusts itself forward overhead, and a high wall, behind which the flames shoot up, leans forward, noiselessly. All stand motionless and await, with shoulders raised and brows contracted, the awful crash. The silence here is like that." This conveys a great deal of the mystery, the sense of thunderous possibility that charges the air of a conflagration, where all the old values are reversed, where huge walls loom largely above and strange things happen against a changing sky. Here the Tooley Street reporter speaks again : " Where Mr. Braidwood and Mr. Scott lost their lives a whole warehouse seems mined at its foundation and beetles over the spot at a fearful angle, and the entire mass may come headlong over at any instant. . . ."

But more later of these aspects experienced intimately by firemen, but hardly perceptible from the outside street. Return to the direct description of flame itself with Maxim Gorki and his essay on fires. Gorki writes : " Coming, one dark February night, to Osharsk Square, I saw a frisky fox-tail of fire peep out of a garret window and shake itself in the air, speckling the night with large fluttering sparks that fell to earth slowly and unwillingly. The beauty of the fire excited me. It was as though some red beast had sprung suddenly out of the moist, warm darkness into the window and under the roof, had arched its back and was gnawing furiously at something ; one could hear a dry crackling—as a bird's bones crack beneath one's teeth. As I stood watching the sly artfulness of the fire I thought : ' Someone ought

to go and knock at the windows, wake people up, and cry : " Fire ! " ' But I felt incapable of moving or shouting : I just stood captivated, watching the quick growth of the flame : the hue of cock's feathers had begun to flash on the edge of the roof, the top branches of the trees in the garden became pink and golden, and the square began to light up."

Throughout his essay, Gorki finds varying metaphors for the movement and colour of flames and the panorama general. He writes : " At first little snails come out, little red snails that crawl up the sides of the stacks, then they swell up and join together—and only then the whole thing flares up ! " And again : " The silhouette of the fire among the black trees changed like a kaleidoscope, and the dance of the flames was untiring and relentless. Here a large red bear of fire rolls out on the meadow, jumping clumsily and turning somersaults : losing tufts of his flaming hair, he crawls along the trunk as though to gather honey, and, reaching the top of the tree, hugs its branches in the hairy embrace of his crimson paws, balances on them, strewing pink needles in a rain of golden sparks. . . ." Gorki likens fire furthermore to purple mice, red and yellow moths, reddish-yellow snakes, yellow flowers, golden commas, quick red little beasts, golden ants, a flock of bullfinches—" their pointed wings glittering rapidly in the grass "—and various other animals. The prose is delightful. The romantic attitude entertains pleasantly enough. But—can this be fire of which Gorki writes ? The fire that might melt an eyeball, sear great blisters across the flesh ? It seems that Gorki was content in his metaphors to comment on shape and colour, forgetting heat and terror and pain. His choice of metaphor seldom hurts—except perhaps that of the ants, and then hardly in quite the approved way. But then Gorki loved the look of fire—" I am just as ready to sit for days watching the flames as I am to sit and

listen to music." At times, though, he does dip his pen into the fire proper and writes, for instance : " The roof had fallen in ; through a huge brick casement with iron bars the fire was furiously bubbling and snorting, vomiting out a deep oily smoke. . . ."

Perhaps, in any case, a metaphor of any sort is inadequate when it describes an element. An element is fundamental and thus in its nature stronger than any imaginative equivalent. Somewhere in *Paradise Lost* Milton wrote of " whirlwinds of tempestuous fire." Milton rubbed the elements together—but no fire came of it. Once I found myself writing : " The fly-size shapes of firemen could be seen desperately fighting a sea of fire. They were right up against eddying waves of flame a hundred feet high. . . ." Re-reading this dainty flower of journalese in hard print, it is plain that the waves in question have quite efficiently doused the reality of fire. I arrive at the conclusion that where Milton, Gorki and myself have failed, there can be success for no man. Metaphors of fire are finally ineffective.

And so it is with the general abstract epithet. The Victorians, among others, would refer to a mass of flame as " terrible," " calamitous," " awe-inspiring." But nowadays the fictitious characterisation changes ; often people condemn the blitzfire panorama as " beautiful," or " you have to admit it—a magnificent sight." And St. Francis found that fire was neither terrifying nor beautiful, but simply jolly : " Brother Fire, fair, jocund, and most robust and strong." The personality of fire changes with the times or men's moods : or has no personality at all. I would subscribe to the latter view. And up to this point I would summarise that the real quality of fire cannot be described by directly sketching its shape and colour, or by the use of metaphor, or by the words of the fire vocabulary purely and without allusion, or by general abstract epithet. Fire can only

be adequately described in terms of its reflected light, or by its effect on things, and by subjective inferences drawn from the contact of heat with flesh that might be one's own flesh.

Since this is necessarily a personal opinion, it is only fair that I pull myself to pieces as well as others. Reviewing certain pieces I have written on the fire subject, I find that I have easily fallen into the literary traps I denigrate, and that the description tends to be satisfactory only when it fulfils the specification outlined above. I have written, disastrously, of "flames that reached out across the street, licking close to the venerable stone," * and of firemen who "slaved hour after hour to hurl back that advancing wall of fire." But in contrast to these pedestrian efforts, I find in the same book a passage that rings a shade more truly: "Dark City alleyways and passages, curtained for a century by tall walls, exchanged their twilight gloom for a flood of yellow light in one theatrical moment. . . ." But in a short story called *The Wall* I find reference to fire which "assumed tactile values like boiling jelly that expanded inside a thick black-squared grille." Now, I remember seeing fire bulge in this manner. I remember that in a loose way it looked a little like boiling jelly. But only, I think, because my brain was searching rather hard for some such comparison, and boiling jelly seemed the nearest texture, and thus it seemed at the time a successful equivalent. But really that particular fire was a lot different from boiling jelly. It just looked like fire—like the infernal element it was and nothing more.

Considering in retrospect the problems of writing down these fire scenes, I remember that a great many apparently impotent phrases—such as "the flames swept across the street"—had to be included to provide an image of the fire's choreography. But the point is that these phrases cannot stand alone. They must be

* *Fire Over London.*

interspersed with reflected colour, smells, and the intimate shapes. In the strange world of a burning building the material for this is inexhaustible. I would like to quote part of a journal I kept during the time of air attacks on London. I quote this in no way for prose quality, but to illustrate rather the kind of subject matter that is waiting for the writer who wishes to convey the real essence within the atmosphere of great conflagrations. The fireman's experience is not to be found in the pretty orange frontispiece surmounted by a romantic bundle of nightdress wailing for its succour : it is more concerned with charred wood and black water, smoke and darkness, poisonous gases and strange smells, walls and ceilings and high masses of stone that lean longingly over him as he struggles beneath with his heavy hose. Here is part of my journal :

" It is pleasant to wake at midday and smell the pure air again.

" From eight o'clock in the evening till eight o'clock in the morning, when eventually we got to bed, there was nothing but the smell of fire. Once round the twelve-hour clock with no other smell but the sickly-sweet stench of smouldering bricks and burning beams. Mixed occasionally with the still, dead smell (something to do with coffins and toadstools) of plaster dust that hangs poisonously in the air after a high explosive bomb has burst.

" There are two things that finally nauseate me in this business of fire-fighting. First, the smell of burning and disintegration. It is constant. It is solid. Hour after hour it clouds the nostrils and swills around the lungs. You cannot escape it for a moment.

" And secondly the coppery-red reflection of fire in the sky and on every building everywhere. This colour has the same terrible constancy as the smell of a fire. This too is solid, unwavering. After several hours it sickens the eyes. It is a live colour, the colour of a

living element, and so it cannot grow dim and neutral with familiarity. It glares and sickens all the time. Every window, every brick, every tile, every block of stone, reflects this vivid colour force. There is just the coppery red and the black shadows and no other colour. Because, being a fireman, I am naturally attached to the most fired districts, it is impossible to escape this colour. From a distance, serving its part in the blitz panorama, it can be beautiful. But not when it is with you for twelve hours at a stretch.

" Though this colour never changes, sometimes there are exceptions to the smell. I can remember the time a small scent factory caught alight. The heat of the fire burst a hundred bottles of concentrated essence and vaporised the perfume. That night we worked in an atmosphere drugged by the wildest, headiest smell that ever quivered a nostril. We drifted with a rosewater hose through a Persian garden where the trees were Mae West's hair and the walls the crystallised breath of every bosom since Jezebel. The perfumed barges of Tiberius were put to shame for ever by that small hot room alive with the mad essences.

" Once a spirit storehouse caught fire. Crates of whisky and brandy were broken and ablaze. Imagine the power in the bouquet of a small glass of brandy warmed by the hands only. How immeasurably stronger, then, was the bouquet from those little rivers of brandy heated by a real fire. They trickled in and around our feet. The aroma rose in thick gusts and kicked into our heads. I was soon quite drunk.

" A butcher's shop caught alight. The fire cooked the meat. It had not yet crept near enough to burn it. For a while, then, the shop was bright with the savour of fine brown sides of beef and good crackling pork. But only for a while : at last the meat caught fire, and once more the old smell of hot disintegration swept across the shop.

" A hundred other stores and factories each cook the firemen their own sweet dishes . . . a sugar factory—acres of boiling sweet molasses . . . a paint factory—and the poisonous fumes of blistered chemicals . . . a rubber depository . . . a toffee warehouse—which delighted me particularly, because here again was the exciting smell of the schoolday kitchen, the warm nut-brown and gold smell of the toffee pan broiling away on a dark winter's afternoon. In dockland in 1940, in a night of smoke and noise and flying steel, it was comforting to find this treasured nostalgia so generously magnified."

The episodes in this passage were treated lightly : but it is the subject matter that I wish to illustrate here—matter that would most efficiently draw the reader right into the fire if expanded dramatically. Finally, let us admit ourselves defeated by the naked flame. Let us concentrate instead upon its symptoms and results. We should not, but we will, parody the meaning of a line written by a most classic Italian firewatcher. Dante, of his own particular Inferno, wrote : " *Cognosco i segni dell' antica fiamma* "—I know the symptoms of the ancient flame.

WILLIAM SANSOM, *Fire and Water* (1942)

THOUGHTS ON PEACE IN AN AIR RAID

THE Germans were over this house last night and the night before that. Here they are again. It is a queer experience, lying in the dark and listening to the zoom of a hornet which may at any moment sting you to death. It is a sound that interrupts cool and consecutive thinking about peace. Yet it is a sound—far more than prayers and anthems—that should compel one to think about peace. Unless we can think peace into existence we—not this one body in this one bed but

millions of bodies yet to be born—will lie in the same darkness and hear the same death-rattle overhead. Let us think what we can do to create the only efficient air-raid shelter while the guns on the hill go pop-pop-pop and the searchlights finger the clouds and now and then, sometimes close at hand, sometimes far away, a bomb drops.

Up there in the sky young Englishmen and young German men are fighting each other. The defenders are men, the attackers are men. Arms are not given to Englishwomen either to fight the enemy or to defend herself. She must lie weaponless to-night. Yet if she believes that the fight going on up in the sky is a fight by the English to protect freedom, by the Germans to destroy freedom, she must fight, so far as she can, on the side of the English. How far can she fight for freedom without firearms? By making arms, or clothes, or food. But there is another way of fighting for freedom without arms; we can fight with the mind. We can make ideas that will help the young Englishman who is fighting up in the sky to defeat the enemy.

But to make ideas effective, we must be able to fire them off. We must put them into action. And the hornet in the sky rouses another hornet in the mind. There was one zooming in *The Times* this morning—a woman's voice saying, "Women have not a word to say in politics." There is no woman in the Cabinet; nor in any responsible post. All the idea-makers who are in a position to make ideas effective are men. That is a thought that damps thinking, and encourages irresponsibility. Why not bury the head in the pillow, plug the ears, and cease this futile activity of idea-making? Because there are other tables besides office tables and conference tables. Are we not leaving the young Englishmen without a weapon that might be of value to him if we give up private thinking, tea-table thinking because it seems useless? Are we not stressing

our disability because our ability exposes us perhaps to abuse, perhaps to contempt? "I will not cease from mental fight," Blake wrote. Mental fight means thinking against the current, not with it.

That current flows fast and furious. It issues in a spate of words from the loudspeakers and the politicians. Every day they tell us that we are a free people, fighting to defend freedom. That is the current that has whirled the young airman up into the sky and keeps him circling there among the clouds. Down here, with a roof to cover us and a gas-mask handy, it is our business to puncture gas-bags and discover seeds of truth. It is not true that we are free. We are both prisoners to-night —he boxed up in his machine with a gun handy; we lying in the dark with a gas-mask handy. If we were free we should be out in the open, dancing, at the play, or sitting at the window talking together. What is it that prevents us? "Hitler!" the loudspeakers cry with one voice. Who is Hitler? What is he? Aggressiveness, tyranny, the insane love of power made manifest, they reply. Destroy that, and you will be free.

The drone of the planes is now like the sawing of a branch overhead. Round and round it goes, sawing and sawing at a branch directly above the house. Another sound begins sawing its way in the brain. "Women of ability"—it was Lady Astor speaking in *The Times* this morning—"are held down because of a subconscious Hitlerism in the hearts of men." Certainly we are held down. We are equally prisoners to-night —the Englishmen in their planes, the Englishwomen in their beds. But if he stops to think he may be killed; and we too. So let us think for him. Let us try to drag up into consciousness the subconscious Hitlerism that holds us down. It is the desire for aggression; the desire to dominate and enslave. Even in the darkness we can see that made visible. We can see shop windows blazing; and women gazing; painted

women ; dressed-up women ; women with crimson lips and crimson finger-nails. They are slaves who are trying to enslave. If we could free ourselves from slavery we should free men from tyranny. Hitlers are bred by slaves.

A bomb drops. All the windows rattle. The anti-aircraft guns are getting active. Up there on the hill under a net tagged with strips of green and brown stuff to imitate the hues of autumn leaves guns are concealed. Now they all fire at once. On the nine o'clock radio we shall be told " Forty-four enemy planes were shot down during the night, ten of them by anti-aircraft fire." And one of the terms of peace, the loudspeakers say, is to be disarmament. There are to be no more guns, no army, no navy, no air force in the future. No more young men will be trained to fight with arms. That rouses another mind-hornet in the chambers of the brain—another quotation. " To fight against a real enemy, to earn undying honour and glory by shooting total strangers, and to come home with my breast covered with medals and decorations, that was the summit of my hope. . . . It was for this that my whole life so far had been dedicated, my education, training, everything. . . ."

Those were the words of a young Englishman who fought in the last war. In the face of them, do the current thinkers honestly believe that by writing " Disarmament " on a sheet of paper at a conference table they will have done all that is needful ? Othello's occupation will be gone ; but he will remain Othello. The young airman up in the sky is driven not only by the voices of loudspeakers ; he is driven by voices in himself—ancient instincts, instincts fostered and cherished by education and tradition. Is he to be blamed for those instincts ? Could we switch off the maternal instinct at the command of a table full of politicians ? Suppose that imperative among the peace terms was,

" Child-bearing is to be restricted to a very small class of specially selected women," would we submit? Should we not say, " The maternal instinct is a woman's glory. It was for this that my whole life has been dedicated, my education, training, everything. . . ." But if it were necessary, for the sake of humanity, for the peace of the world, that child-bearing should be restricted, the maternal instinct subdued, women would attempt it. Men would help them. They would honour them for their refusal to bear children. They would give them other openings for their creative power. That too must make part of our fight for freedom. We must help the young Englishmen to root out from themselves the love of medals and decorations. We must create more honourable activities for those who try to conquer in themselves their fighting instinct, their subconscious Hitlerism. We must compensate the man for the loss of his gun.

The sound of sawing overhead has increased. All the searchlights are erect. They point at a spot exactly above this roof. At any moment a bomb may fall on this very room. One, two, three, four, five, six . . . the seconds pass. The bomb did not fall. But during those seconds of suspense all thinking stopped. All feeling, save one dull dread, ceased. A nail fixed the whole being to one hard board. The emotion of fear and of hate is therefore sterile, unfertile. Directly that fear passes, the mind reaches out and instinctively revives itself by trying to create. Since the room is dark it can create only from memory. It reaches out to the memory of other Augusts—in Bayreuth, listening to Wagner ; in Rome, walking over the Campagna ; in London. Friends' voices come back. Scraps of poetry return. Each of those thoughts, even in memory, was far more positive, reviving, healing, and creative than the dull dread made of fear and hate. Therefore if we are to compensate the young man for the loss

of his glory and of his gun, we must give him access to the creative feelings. We must make happiness. We must free him from the machine. We must bring him out of his prison into the open air. But what is the use of freeing the young Englishman if the young German and the young Italian remain slaves ?

The searchlights, wavering across the flat, have picked up the plane now. From this window one can see a little silver insect turning and twisting in the light. The guns go pop-pop-pop. Then they cease. Probably the raider was brought down behind the hill. One of the pilots landed safe in a field near here the other day. He said to his captors, speaking fairly good English, " How glad I am that the fight is over ! " Then an Englishman gave him a cigarette, and an Englishwoman made him a cup of tea. That would seem to show that if you can free the man from the machine the seed does not fall upon altogether stony ground. The seed may be fertile.

At last all the guns have stopped firing. All the searchlights have been extinguished. The natural darkness of a summer's night returns. The innocent sounds of the country are heard again. An apple thuds to the ground. An owl hoots, winging its way from tree to tree. And some half-forgotten words of an old English writer come to mind : " The huntsmen are up in America. . . ." Let us send these fragmentary notes to the huntsmen who are up in America, to the men and women whose sleep has not yet been broken by machine-gun fire, in the belief that they will re-think them generously and charitably, perhaps shape them into something serviceable. And now, in the shadowed half of the world, to sleep.

VIRGINIA WOOLF, *The Death of the Moth* (1942)

NOTES

The Duty of Society to the Artist. By E. M. Forster.

E. M. Forster was educated at Tonbridge and King's College, Cambridge. Achieving great distinction as a novelist he was awarded the Benson Medal of the Royal Society of Literature in 1937. His most famous novel, "Passage to India," won him the Prix Femina Vie Heureuse and James Tait Black Prize in 1925. His other works include "A Room with a View," "Howards End," "Celestial Omnibus," "Aspects of the Novel," "England's Pleasant Land."

P. 2, l. 1. *Bureaucracy:* government by dominant officials.

P. 4, l. 9. *Palmyra:* once a famous city, now a heap of ruins in the Syrian desert, 150 miles N.W. of Damascus.

Angkor: the old capital of Cambodia in Indo-China, but now only the ruins of a city; a relic of the Khmer civilisation (ninth century A.D.).

l. 10. *Zimbabwe:* a ruined settlement in the southern part of Rhodesia, discovered in 1868, probably a Bantu fortress. The ruins date back to the fourteenth or fifteenth century A.D.

Borobudor: which means "The Great Buddha," are the ruins of a wonderful Buddhist temple situated in the middle of Java. According to the chronicles of the Javanese, this temple was built in the seventh century A.D. The walls are covered with statues, carvings, and bas-reliefs.

Ajanta: a village in the Bombay zone of India; contains the remains of settlements of Buddhist monks in the neighbouring caves; some caves have remarkable wall paintings, showing traces of the infiltration of Greek art into India as a result of Alexander's conquests.

l. 16. *Flibberty-gibbet:* a gossiping or flighty person.

P. 5, l. 13. *Plato:* (428–347 B.C.) the great Greek philosopher.

l. 18. *Phaedrus:* Plato embodied his views in the "Dialogues" in which Socrates figures as conducting the discussions. They are based on the teaching of Socrates and the doctrines of the Pythagoreans, but indicate an evolution of Plato's thought. The "Phaedrus" is an early work and has been called an "elementary dialogue."

A Lost Art. By Osbert Lancaster.

Osbert Lancaster (1908) was educated at Charterhouse, Lincoln College, Oxford, and the Slade School. He exhibited at the New English Art Club in 1932 and 1934. He was on the staff of the Architectural Review from 1934 to 1939. He has contributed articles on historical and architectural subjects to numerous journals and periodicals. He is also a lecturer, an extremely witty cartoonist, and member of the Council of National Buildings Record. His publications include " Pillar to Post," " Homes, Sweet Homes," " Pocket Cartoons."

P. 6, l. 23. *Djibbah-clad :* a djibbah (or jibbah) is a kind of long outer coat worn by Egyptian Mohammedans.

l. 30. *Batik-work :* a Javan process of printing a fabric with coloured designs.

P. 7, l. 16. *William Morris :* (1834–1896) English poet, artist, and socialist, started a designing and furnishing business in 1862. He had a great influence on late Victorian art and decoration, and his interest in mediaevalism coloured all his works.

l. 30. *Mr. Wilde :* Oscar Wilde (1856–1900), Irish author and wit.

P. 8, l. 12. *Byzantine :* of Byzantium or Constantinople ; of the art style of the Eastern Roman Empire (mosaics, etc.).

Sassanian : of the Sassanidae, a dynasty of Persian kings who ruled from A.D. 226 to 641 when they were overthrown by the Arabs.

l. 15. *Swags :* a kind of ornamental festoon, as of leaves.

Volutes : a spiral scroll in stonework especially as the corner of Ionic capital.

l. 18. *Rococo :* a style of furniture or architecture with much conventional decoration, often tastelessly florid, consisting largely of a profusion of shellwork, scrolls, and flowers, popular in Europe during the seventeenth and eighteenth centuries.

l. 30. *Trecento :* the fourteenth century in Italian art.

P. 9, l. 7. *Bodoni :* here the type used by the Italian printer, Giambattista Bodoni (1740–1813).

l. 8. *Egyptian :* the journeyman printer in old days used pieces of type from founts of Egyptian and Etruscan characters as decorations on menu-cards, playbills, etc.

Etruscan : belonging to Etruria, an ancient district of Italy. Etruscan art followed for the most part Greek design and workmanship.

l. 9. *Metamorphoses :* changes of form.

l. 17. *Crystal Palace:* a large building, designed by Sir Joseph Paxton, and reconstructed (1854) from the building used for the Great Hyde Park Exhibition, 1851. It was built entirely of iron and glass with towers at either end 282 feet high, at Sydenham, London.

Ruskin: John Ruskin (1819–1900), English author and critic. He achieved fame for his pronouncements on art and architecture.

Frankenstein mood: In Mary Shelley's story, Frankenstein the student, seeking to create a man from chemicals, makes a monster that he himself loathes. Here it means in a bitter, resentful mood.

l. 19. *Church of the Madonna of the Miracles:* presumably Santa Maria dei Miracoli in the Piazza del Popolo, Rome.

l. 22. *Lincrusta:* a special type of thick wall-paper.

l. 32. *Berenson:* Bernhard Berenson (1865), Russian historian and art critic. His chief study was old Italian painting.

P. 10, l. 1. *Marie Lloyd:* one of the greatest stars the music-hall ever produced in this country. She had an engaging personality; and, to quote one memorable tribute, "a heart as big as Waterloo Station."

Little Tich: a famous music-hall artist; in James Agate's estimation one of the six greatest comedians in living memory.

The Player and his Art. By Sir John Martin-Harvey.

Sir John Martin-Harvey (1863–1944) originally intended to become a naval architect, but made his debut as a boy actor in 1881 in "To Parents and Guardians." He joined Sir Henry Irving at the Lyceum in 1882 and remained with him for fourteen years. He took over the management in 1899 and opened with "The Only Way," scoring a great and often revived success as Sydney Carton. He played many Shakespearean rôles, and starred in "The Lyons Mail," "The King's Messenger," "The Bells," "Scaramouche," and several Shaw plays. He was knighted in 1921. He died in May 1944.

P. 10, l. 16. *Garrick:* David Garrick (1717–1779), a famous English actor who made his name by his performance of Richard III in 1741. He excelled equally in tragedy, comedy, and farce, and was a pioneer of "naturalistic" acting. He was the author of several plays and writings on the art of acting.

l. 25. *Irving:* Sir Henry Irving (1838–1905), English actor-manager. His first stage appearance was in Lytton's

"Richelieu," 1856. He was manager at the Lyceum Theatre from 1878 to 1899. He was knighted in 1895, being the first actor to receive that honour. Irving was the greatest figure in the theatrical world of his day.

l. 31. *Newbolt:* Sir Henry John Newbolt (1862–1938), English poet who first became famous for his "Admirals All" (1897). His poems are still popular and many of them have been set to music.

l. 33. *Shaw:* George Bernard Shaw (1856–1950), Irish author and dramatist. As a book-reviewer, music critic, and dramatic critic he established a reputation for outspokenness.

P. 11, l. 3. *Psychic:* of what appears to be outside the domain of physical law.

l. 9. *"Conceit":* a far-fetched, fantastic thought or turn of expression.

l. 13. *Microcosmic:* similarity with something on a small scale; usually man as an epitome of the universe.

l. 15. *M. Maeterlinck:* Maurice Maeterlinck (1862–1949), a Belgian dramatist, poet, and essayist. His most famous work is "The Blue Bird" (1910). His later works included essays, in one of which he dealt with the question of inspiration.

l. 20. *Ingres:* Jean-Auguste-Dominique Ingres (1781–1867), French painter of the classical school. Many of his pronouncements upon art appear in his Life by Raymond Balze, 1880.

l. 28. *Samuel Butler:* (1835–1902) English writer, author of "Erewhon," a satire attacking the Darwinian theory of evolution. He published important works on biology though at the time his opinions were not very well received.

l. 37. *Talma:* François-Joseph Talma (1763–1826), a renowned French tragic actor. He wrote "Réflexions sur Lekain et sur l'art théâtral" (1825).

P. 13, l. 23. *John Davidson:* (1857–1909) Scottish poet and novelist, author of "Fleet Street Eclogues" (1893) and "Ballads and Songs" (1894). He was found drowned at Penzance.

l. 32. *Frankenstein:* the Genevan student in Mary Shelley's tale of terror who creates a monster and, seeking to destroy it, is himself murdered.

P. 14, l. 27. *"The Breed of the Treshams":* The author of this unpublished play was John Rutherford.

P. 15, l. 15. *Letters of marque men:* men who had licence to take enemy ships.

l. 18. *Galliard :* a lively dance in triple time.

l. 36. *The elder Kean :* Edmund Kean (1787–1833), English actor who made his first appearance on the stage at the age of three, and played Hamlet at fourteen. His fame was established by his performance of Shylock at Drury Lane in 1814. Kean excelled in Shakespearean tragic rôles. His son, Charles Kean (1811–1868), was also an accomplished actor.

"*Richard III*" : the historical tragedy by Shakespeare (1594) based on Holinshed. The play centres in the character of Richard of Gloucester, afterwards Richard III, ambitious and sanguinary, bold and treacherous, yet brave in battle, a murderer and usurper of the crown.

P. 16, l. 34. "*Charles the First*" : (1872) a play by William Gorman Wills (1828–1891). For Wills "historical truth had no existence," but the genius of Irving sometimes shone brightest in the worst plays.

P. 17, l. 28. *Linsey :* linsey-woolsey, a fabric of coarse wool woven on cotton warp.

P. 18, l. 4. *Cyril Maude:* (1862–1951) English actor and manager. He made his début in the United States in "East Lynne" in 1884. He first appeared in England in "The Great Divorce Case."

l. 7. *Becket:* a play by Alfred, Lord Tennyson, written in 1884, and acted by Irving with great success in 1893.

P. 18, l. 35. "*The Lyons Mail*": a melodrama by Charles Reade and Tom Taylor. The chief characters are Jerome Leseurques, an impoverished solicitor who tries to add to his income by secretly owning the White Lion Inn, and Joseph, his son, whose likeness to the highwayman Dubosc causes him to be accused of robbing the Lyons Mail. First produced in 1851, it kept the stage and furnished one of Irving's successful parts.

Democratic Values are New Values. From "To Hell with Culture," by Sir Herbert Read.

Sir Herbert Read (1893) was educated at Crossley's School, Halifax, and Leeds University. He fought through the 1914–1918 war and was awarded the M.C. and D.S.O. He has been Assistant Keeper, Victoria and Albert Museum; Watson Gordon Professor of Fine Art in the University of Edinburgh; Sydney Jones Lecturer in Art, University of Liverpool; Editor of the "Burlington Magazine." His publications include "English Prose Style," "The Meaning of Art," "Art and Industry," "Art and Society,"

"Poetry and Anarchism." He is greatly interested in Child Art.

P. 20, l. 14. *Baroque rhetoric:* opulent, figured style of ornamentation.

l. 15. *Sistine Chapel:* a chapel in the Vatican at Rome built by Sixtus IV, from whom it takes its name. Michelangelo's famous painted ceiling was added when Julius II was Pope.

P. 21, l. 1. *Botticelli:* Sandro Botticelli (1447–1510), a Florentine painter whose works are marked by the freshness of the early Renaissance.

Bernini: Giovanni Lorenzo Bernini (1598–1680), Italian sculptor, painter, and architect who designed the colonnade of St. Peter's at Rome. He was famous also for his busts.

l. 2. *Limoges:* capital of the department of Haute-Vienne, West Central France, and is renowned for its enamel-work, pottery, and goldsmiths' work.

P. 22, l. 6. *Parthenon:* a temple at Athens sacred to Athene. It was destroyed by the Persians and rebuilt in a more splendid manner by Pericles.

P. 23, l. 3. *Holocaust:* a whole burnt-offering; wholesale destruction.

P. 25, ll. 25–26. *When Adam delved and Eve span, who was then the gentleman?:* This saying is attributed to John Ball, a priest, one of the leaders in Wat Tyler's rebellion (1381) after the imposition of the poll-tax had increased the misery of the peasants caused by the Statutes of Labourers and the Black Death.

Voyagers to the Moon. From "Life and the Poet," by Stephen Spender.

Stephen Spender (1909) was educated at University College School, and University College, Oxford. He belongs to a generation of poets, W. H. Auden, C. Day Lewis, Louis MacNeice, who were all contemporaries at Oxford. Their poetry began to become well known in the early 'thirties, at a time of economic crisis and unemployment. Spender travelled widely in Germany and other countries during the next five years. His publications include "Poems," "The Destructive Element," "The Burning "Cactus," "Poems for Spain," "The Still Centre." He was a member of the National Fire Service, 1941–44, but carried on his work as poet and critic, and wrote to defend the status of the poet in society.

P. 28, l. 10. *Dante:* Dante Alighieri (1265–1321), the greatest Italian poet. His "Divina Commedia" is not only an

exposition of the future life, but a work of moral edification, replete with symbolism and allusions based on Dante's wide knowledge of philosophy, astronomy, natural science, and history.

Chaucer: Geoffrey Chaucer (1340–1400) in his "Canterbury Tales" shows a wide humanity and a keen insight into the human mind. He gives a living picture of England in the fourteenth century.

Tolstoy: Count Leo Nikolaevich Tolstoy (1828–1910), a Russian writer. In his great novels the union of an intense moral conviction and realistic details, and an immense imaginative vision, combine to make him one of the supreme European writers.

Balzac: Honoré de Balzac (1799–1850), a French novelist, author of the great collection of romances entitled "La Comédie Humaine" in which he endeavoured to represent, faithfully and minutely, the whole complex system of French society.

P. 35, ll. 9–10. "*Weary, stale, flat, and unprofitable*": From "Hamlet," Act I. Sc. II. line 131.

Music and Politics. By W. J. Turner.

W. J. Turner (1889–1946) was educated at the Scotch College, Melbourne, and travelled in South Africa, Germany, Australia, and Italy. He was for some years the musical critic of the "New Statesman," dramatic critic of the "London Mercury," and literary editor of the "Daily Herald," and, later, of the "Spectator." His books included "Music and Life," "The Man who Ate the Popomack" (a play), "Music: A Short History," works on Beethoven, Mozart, Wagner and Berlioz, "Henry Airbubble" (a novel) and "Selected Poems."

P. 36, l. 3. *Alan Bush:* Professor for Harmony and Composition at the Royal Academy of Music. He received the Carnegie Award for String Quartet in 1925.

Benjamin Britten: a British composer. His opera, "Peter Grimes," has been remarkably successful.

l. 11. *Obscurantists:* persons opposed to enlightenment.

P. 37, l. 3. *Beethoven:* Ludwig van Beethoven (1770–1827), the famous German musical composer. His Third Symphony—the "Eroica"—composed in 1804 was dedicated to Napoleon.

l. 26. *Countess Guicciardi:* Giulietta Guicciardi was the cousin of Beethoven's two great friends, the sisters of the Count of Brunswick. She is said to have been his intended bride, and some biographers assert that she was the

" Immortal Beloved " to whom a letter found in Beethoven's desk after his death was addressed, especially as a miniature of Giulietta Guicciardi was found with it. This is all disputed by other authorities. She made an unhappy marriage with the young Count Gallenburg, and is said to have tried to resume her friendship with Beethoven twenty years later, and to have been rebuffed. The work dedicated to her was the so-called " Moonlight Sonata " (C sharp minor, Op. 27).

P. 38, l. 27. *Mozart's music :* Wolfgang Amadeus Mozart (1756–1791), the famous German musician and composer, showed extraordinary precocity. He composed his first oratorio when eleven years old, and his first opera was produced when he was thirteen. Beethoven, during a short visit to Vienna in 1787, played before Mozart, who was amazed at his talent in improvisation and gave him a few lessons.

l. 35. *Haydn :* Franz Josef Haydn (1732–1809), the composer, was born in Austria. He has been called " the father of modern instrumental music." It may be noted that Beethoven received lessons from him. Haydn intensely admired Mozart, who himself held the older composer in great respect.

P. 39. l. 7. *Fidelio :* an opera by Beethoven.

l. 26. *Shostakovitch's " Leningrad " symphony :* Dmitry Dmitryevitch Shostakovitch (1906), the Soviet composer, was awarded the Stalin Art Prize in 1941. He composed the " Leningrad " symphony in 1941.

Sudden Spring. From " In the Heart of the Country," by H. E. Bates.

H. E. Bates (1905) was educated at Kettering Grammar School, and worked as a provincial journalist and clerk. He published his first novel at the age of twenty, and subsequently became known both as a novelist and short-story writer in England and America. He has been the country correspondent for " The Spectator " and is an authority on country matters. His works include " The Fallow Land," " The Poacher," " Spella-Ho," " The Flying Goat " and " Country Tales." He held a commission in the R.A.F. and achieved a new reputation as " Flying Officer X."

P. 41, l. 3. *Midsummer Day:* June 24th.

l. 17. *Cordwood:* wood for fuel cut to the length of four feet so as to be readily measurable in cords. A cord is a cubic measure usually equivalent to 128 cubic feet.

P. 42, l. 16. *Apache:* member of a North American Indian tribe.

P. 45, l. 32. *Sallows:* low-growing kinds of willow.

England Revisited. By John Betjeman.

John Betjeman (1906) was educated at Marlborough College and Oxford University. He was the General Editor of the Shell Guides and has written books on a variety of subjects. He was U.K. Press Attache, Dublin, during the war. He is also an experienced broadcaster. His publications include " Ghastly Good Taste," " Continual Dew," " An Oxford University Chest," " Antiquarian Prejudice."

P. 51, l. 29. *Huish Champflower:* a village in Somerset, near Wellington.

Whitchurch Canonicorum: a village in Dorset, near Bridport.

Willingale Spain: a village in Essex, near Chelmsford.

l. 30. *Bourton-on-the-Hill:* a village in Gloucestershire, near Stow-on-the-wold.

Iwerne Minister: a village in Dorset, near Shaftesbury.

Puddletrenthide: a village in Dorset, near Dorchester.

l. 31. *South Molton:* a market town in Devon, near Barnstaple.

Wotton: a village in Surrey, near Dorking.

Norton: There are nearly twenty villages of this name in England.

Evenlode: a village in Worcestershire, near Moreton-in-the-Marsh.

l. 32. *Fairford:* a village in Gloucestershire, near Cirencester.

Canons Ashby: a village in Northamptonshire, near Towcester.

Bag-Enderby: a village in Lincolnshire, near Horncastle.

Kingston Bagpuize: a village in Berkshire, near Abingdon.

P. 52, l. 21. *Scott Committee:* was appointed in October 1941 " to consider the conditions which should govern building and other constructional development in country areas consistently with the maintenance of agriculture, and in particular the factors affecting the location of industry, having regard to economic operation, part-time and seasonal employment, the well-being of rural communities and the preservation of rural amenities."

P. 53, l. 14. *Tennyson:* Alfred, Lord Tennyson (1809–1892), Poet laureate, 1850 to 1892.

Crabbe: George Crabbe (1754–1832), English poet of rural life.

l. 15. *Hardy :* Thomas Hardy (1840–1928), English novelist and poet. He is distinguished by the wealth of local colour in his Wessex Novels.

Matthew Arnold : (1822–1888) English poet and critic.

The English at War. From " The English People " by D. W. Brogan.

D. W. Brogan (1900) was educated at Rutherglen Academy, Glasgow University, Balliol College, Oxford, and Harvard. He has been Lecturer at University College, London, and at the London School of Economics. For a time he was Fellow and Tutor at Corpus Christi College, Oxford, and is now Professor of Political Science, Cambridge, and Fellow of Peterhouse. His publications include " The American Political System," " Abraham Lincoln," " Proudhon." He writes with rare objectivity on both British and American affairs.

P. 54, ll. 9–10. *A retreat from Mons, the Marne, the Aisne, Ypres :* On August 23, 1914, began the retreat from Mons. The Germans continued to advance until checked at the battle of the Marne (September 6th to the 10th), when they fell back to the Aisne. The first battle of Ypres was fought in October and November 1914. The second battle of Ypres, April and May 1915, again held the German thrust for the Channel ports.

l. 19. *The Spanish War :* on July 17, 1936, the Spanish Civil War opened with the rising of the Foreign Legion in Morocco under General Franco, who was proclaimed head of the Nationalist Government. With the help of Italians and Germans the Fascists under Franco were victorious in March 1939.

P. 55, l. 20. *McClellan :* George Brinton McClellan (1826–1885), an American general.

Lincoln : Abraham Lincoln (1809–1865), the sixteenth President of the United States (1861–1865).

l. 31. *Ludendorff :* Erich von Ludendorff (1865–1937), German general in the First World War. He was chief of staff to Hindenburg, organiser of the great 1918 offensive which was followed by the collapse of the German armies.

Pétain : Henri Philippe Pétain (1856–1951), a distinguished French soldier. Following his brilliant defence of Verdun in 1916 he became Commander-in-Chief of the Armies of the North and North-East. At the age of eighty-four he was recalled from Madrid, where he was

French Ambassador, to try to save France. He capitulated, and became the nominal head of Vichy France.

P. 56, l. 5. *Thackeray :* William Makepeace Thackeray (1811–1863), famous English novelist. His novel "Esmond," published in 1852, deals with the Marlborough campaigns from Blenheim to Malplaquet.

l. 6. *Webb :* John Richmond Webb (1667–1724), English general who served with distinction in the Marlborough campaigns.

Marlborough : John Churchill, first Duke of Marlborough (1650–1722). Regarded as one of the world's greatest soldiers.

Wellington : Arthur Wellesley, first Duke of Wellington (1769–1852), British general. He fought against Masséna in Spain throughout several campaigns.

l. 11. *Holland House :* was built in Kensington at the beginning of the seventeenth century for Sir Walter Cope. It passed by marriage into the possession of Henry Rich, first Earl of Holland. In the time of the third Baron Holland (1773–1840) Holland House became a great political, literary, and artistic centre and many distinguished people were received there.

l. 16. *Brandywine :* Brandywine Creek, a stream in Pennsylvania and Delaware, U.S.A., and the scene of a battle in the American War of Independence, 1777, when a superior force of British under Lord Howe was victorious.

l. 17. *Fredericksburg :* The Confederates under General Lee defeated the Federals under General Burnside in 1862, during the American Civil War.

l. 18. *Pickett's unavailing charge :* George Edward Pickett (1825–1875), American Confederate soldier. At Gettysburg his division led the attack on Cemetery Hill. In this famous charge over three thousand officers and men out of four thousand five hundred were left on the field.

ll. 18–19. *The last campaign of Hood :* John Bell Hood (1831–1879), an American soldier. Disaster attended him on winning the temporary command of the Tennessee army during the Civil War. At the battle of Nashville his forces were utterly overwhelmed, 1865.

l. 22. *"Grand old Duke of York" :* Frederick Augustus, Duke of York and Albany (1763–1827), second son of George III and Queen Charlotte. He was given command of the English armies against the French in 1793 but was not successful in the field. He retained his popularity with all classes during the reign of his brother, George IV.

P. 57, l. 1. *Watt:* James Watt (1736–1819), distinguished Scottish inventor.

Parsons: Hon. Sir Charles Algernon Parsons (1854–1931), British engineer. He invented the Parsons steam turbine.

Rolls: Hon. Charles Stewart Rolls (1877–1910), English motorist and aviator. Founded, together with Sir Henry Royce, the famous firm of Rolls-Royce, Ltd.

l. 10. *Thermopylae:* a narrow pass between mountain and sea leading from Thessaly into Locris and Phocis, celebrated for the battle when 6000 Greeks, including 300 Spartans under Leonidas, for three days resisted Xerxes' vast Persian army.

P. 58, l. 5. *First Ypres:* This battle was fought in October and November 1914. The Germans came very near to a break-through, but the small British army held them and saved the Channel ports.

l. 6. *Waterloo:* Napoleon was finally and decisively beaten here on June 18, 1815.

Trafalgar: Nelson defeated the French and Spanish fleets on October 21, 1805, and was killed in the course of the battle.

l. 7. *Nile:* Nelson destroyed the French fleet in Aboukir Bay on August 1, 1798.

Baltic: Nelson destroyed the Danish fleet off Copenhagen on April 2, 1801.

l. 13. *Rodney:* George Brydges, first Baron Rodney (1719–1792), famous British admiral.

Hawke: Edward Hawke, first Baron (1705–1781), English admiral.

P. 59, l. 35. *Blake:* Robert Blake (1599–1657), English admiral during the Commonwealth.

P. 60, ll. 17–18. *Santa Cruz:* Alvaro de Bazan, Marquis of Santa Cruz (1526–1588), Spanish admiral who was to have commanded the Spanish Armada.

l. 18. *Duquesne:* Abraham, Marquis Duquesne (1610-1688), French naval commander.

Farragut: David Glasgow Farragut (1801–1870), American admiral.

l. 20. *De Ruyter:* Michael Adriaanzoon De Ruyter (1607–1676), Dutch naval commander.

Tromp: Martin Harpertzoon Tromp (1597–1653), Dutch admiral.

Tourville: Anne-Hilarion de Cotentin, Comte de Tourville (1642-1701), French admiral and marshal of France.

Hipper : Admiral von Hipper, a German admiral during the Great War.

Suffren : Pierre-André de Suffren (1729-1788), French admiral.

l. 21. *Villeneuve :* Pierre-Charles-Jean-Baptiste de Villeneuve (1763–1806), French admiral.

Grasse : François-Joseph-Paul de Grasse (1723–1788), French admiral.

De Winter : Jan Willem De Winter (1750–1812), Dutch admiral.

ll. 21–22. *von Spee :* Maximilian, Count von Spee (1861–1914), German naval commander.

l. 24. *Yankees :* the leading American baseball team. Representing New York City.

ll. 29–30. *Nelson's three great victories :* See previous note (P. 58, ll. 6–7).

P. 61, l. 6. *Collingwood :* Cuthbert, Admiral Lord Collingwood (1750–1810), was second in command at Trafalgar, and was one of England's greatest sailors.

l. 22. *Joseph Conrad :* (1857–1924), a Pole, Teodor Josef Konrad Korzeniowski, who wrote in English many fine novels dealing with the sea.

l. 32. *La mer fidèle y dort sur mes tombeaux :* "The faithful sea sleeps there upon my graves."

The Somerset Churchill. From "Preludes and Studies," by Alan Dent.

Alan Dent (1905) is one of the most discerning and lively of our younger critics. He was secretary and often understudy, so to speak, to James Agate (he is the "Jock" of Agate's "Ego" books), and became dramatic critic to the "Manchester Guardian," "Punch," and other periodicals. He wrote a good many articles for "John o' London's Weekly." His weekly broadcast talks on current films were very popular. He served in the Navy during the war.

P. 62, l. 10. *King William III :* (1650–1702) King of England and Prince of Orange. In 1677 he married Mary, daughter of James, Duke of York, later James II. William was invited to invade England, and in 1688 he landed at Torbay. He was crowned King in 1689.

l. 12. *Edmund Burke :* (1729-1797) British statesman and author. He became M.P. for Bristol on the invitation of the citizens in 1774. He was, perhaps, the greatest orator of his time.

l. 20. *Warren Hastings:* (1732–1818) the first Governor-General of British India. He was impeached in 1788 for corruption and finally acquitted in 1795. Burke and Fox were among the prosecutors.

P. 64, l. 32. *Cowperish postman:* William Cowper (1731–1800), an English poet with a simple, gentle, and humane personality. The vignette of the country postman appears in "The Task," Book IV.

P. 65, l. 5. *E. V. Lucas:* Edward Verrall Lucas (1868–1938), English essayist, one-time assistant editor of "Punch," and authority on Charles Lamb.

l. 37. *Sarah Jennings:* (1660–1744) the favourite attendant of the Princess Anne, younger daughter of the Duke of York. In 1678 Sarah Jennings married John Churchill, who later became the first Duke of Marlborough. She remained for many years the closest friend of Queen Anne.

The Face of England. By C. E. M. Joad.

C. E. M. Joad (1891–1953) was educated at Blundell's School and Balliol College, Oxford. He was John Locke Scholar in Moral Philosophy at Oxford. He entered the Civil Service, Board of Trade (later Ministry of Labour), in 1914 and retired in 1930. In 1930 he became Head of the Department of Philosophy and Psychology at Birkbeck College, London University. He published many books on philosophy including "Guide to Philosophy," "Guide to Modern Thought," "The Book of Joad," "The Testament of Joad." He was a leading figure in the B.B.C. Brains Trust, irritating and delighting thousands of listeners.

P. 67, l. 11. *Ganglions:* knot or nerve from which nerve-fibres radiate.

l. 36. *Amberley Down:* in West Sussex, three miles N.N.E. of Arundel.

P. 73, l. 2. *Simonside moors:* about a thousand feet above sea level in mid-Northumberland.

l. 3. *Hadrian's Wall:* Hadrian was Roman emperor from A.D. 117 to 138. He visited Britain and caused the wall to be built between the Solway and the mouth of the Tyne.

l. 21. *Yahooism:* brutish and insensitive behaviour. Yahoos were a race of brutes in human shape in Book IV. of Swift's "Gulliver's Travels."

P. 79. ll. 26–27. *"Brave New World":* the title of a satirical novel by Aldous Huxley.

High Politics or None. From "A Time for Greatness," by Herbert Agar.

Herbert Agar, the distinguished American author, was educated at Columbia and Princeton Universities. He served with the United States Naval Reserves in the Great War. From 1929 to 1934 he was the London Correspondent of the "Louisville Courier Journal" and the "Louisville Times." In the last war he served as a Lieutenant-Commander in the United States Navy. In 1943 he was appointed special assistant to Mr. Winant, American Ambassador in London. Mr. Agar was awarded the Pulitzer Prize for American History for his book "The People's Choice." His other publications include "Pursuit of Happiness" and "Beyond German Victory."

P. 81, ll. 28–29. *Dostoevskian genius:* Feodor Michaelovich Dostoevsky (1821–1881), the Russian novelist who "extended the boundaries of the novel by exploring the dark places of the human spirit."

P. 82, ll. 4–5. *Myths of Plato:* the Greek philosopher (428–347 B.C.) propounded that the world of ideas, divine types, or "forms" of material objects are alone real and permanent, and explained imaginatively his conception of this ideal world.

l. 5. *Definitions of Aristotle:* The writings of this Greek philosopher (384–322 B.C.) covered an extraordinarily wide field. His expression was so exact that some of his works serve as text-books to-day.

l. 6. *Dante:* See previous note (P. 28, l. 10).

Racine: Jean Racine (1639–1699), French dramatic poet.

l. 17. *Locke:* John Locke (1632–1704), English philosopher, author of the "Essay concerning Human Understanding."

Hobbes: Thomas Hobbes (1588–1679), English philosopher, author of "Leviathan."

Rousseau: Jean-Jacques Rousseau (1712–1778), French philosopher and author.

l. 32. *Wagnerian orgies:* Richard Wagner (1813–1883), German musician and poet, chose Scandinavian mythology for the subject of his romantic, highly coloured music-dramas.

P. 83, l. 6. *Algren:* Nelson Algren (1909) wrote "Somebody in Boots," a novel of the submerged classes in Chicago during the trade depression. It was a picture of abject misery under the tyranny of police bullies, politicians, and plutocrats.

P. 85, l. 15. *Professor Carl Friedrich :* the American author of " Constitutional Government and Politics," 1937.

P. 86, l. 37–P. 87, l. 1. *Lorenzo de' Medici :* Lorenzo "The Magnificent" (*c.* 1449–1492), ruler of Florence, and a great patron of art and literature.

l. 25. *Moloch state :* a state which sacrifices its citizens as in Semitic mythology human sacrifices were made to Moloch, tribal diety of the Ammonites.

P. 88, l. 18. *Professor Henry J. Ford :* the American author of " The Natural History of the State " and " Representative Government."

P. 90, l. 12. *Lord Acton :* Sir John Emerich Edward Dalberg, first Baron Acton (1834–1902), a distinguished British historian who planned early in life a history of liberty, " the marrow of all modern history," in his view.

P. 91, l. 9. *Ireton :* Henry Ireton (1611–1651), a general in the Parliamentary Army under Cromwell during the Civil War

l. 11. *John Adams :* (1735–1826) American lawyer, and second president of the U.S.A. (1797–1801).

P. 92, l. 22. *Bill of Rights :* a declaration delivered by the Lords and Commons to William and Mary, Prince and Princess of Orange, and enacted in Parliament when they became King and Queen, 1689. It deals with the Succession to the Crown, and the rights and liberties of the subject.

The New Faith. From " Conditions of Peace," by E. H. Carr.

E. H. Carr (1892) was educated at Merchant Taylors' School, London, and Trinity College, Cambridge. He was attached to the British Delegation to the Peace Conference, 1919, has worked for the Foreign Office, and has been Assistant Adviser on the League of Nations Affairs. He was Professor of International Politics at the University College of Wales, 1936–1946. His publications include " The Romantic Exiles," " International Relations since the Peace Treaties," and " The Twenty Years' Crisis."

P. 102, ll. 35–36. *Concert of Europe :* the name given to the attempts made during the nineteenth century to settle the affairs of Europe by common action on the part of the Great Powers. The second Treaty of Paris in 1815, renewing the alliance between Russia, Prussia, Austria, and Great Britain, laid down that representatives of these Powers should meet periodically to discuss matters of common interest.

P. 103, l. 18. *Emergency Powers Act:* passed in all its stages by both Houses on August 24, 1939. It conferred upon the Government exceptional powers to take all measures that were necessary to secure the public safety and the defence of the country in the event of war.

Education for Citizenship. From "Education for a World Adrift," by Sir Richard Livingstone.

Sir Richard Livingstone (1880) was educated at Winchester and New College, Oxford. He has been an Assistant Master at Eton, Vice-Chancellor of the Queen's University, Belfast, President of the Educational Section of the British Association, and President of the Hellenic Society. For a short time he edited the "Classical Review." He was President of Corpus Christi College, Oxford. He has written a number of books on Classics and on Education. Among the latter are "A Defence of Classical Education" and "The Future in Education."

P. 108, l. 25. *Eric Gill:* Eric Rowland Gill (1882–1940), English sculptor and engraver. He has written several books on sculpture and aesthetics. His Autobiography was published in 1940.

P. 111, l. 31. *Pascal:* Blaise Pascal (1623–1662), French mathematician, physicist, and moralist. His famous "Pensées" were fragments of an uncompleted Defence of the Christian Religion.

The Natural Order and the Priority of Principles. From "Christianity and the Social Order," by William Temple, Archbishop of Canterbury.

William Temple (1881–1944) was educated at Rugby and Balliol College, Oxford. He was President of the Union, and Fellow and Lecturer in Philosophy at Queen's College, Oxford. From 1910 to 1921 he was Chaplain to the Archbishop of Canterbury, and Headmaster of Repton, 1910–1914. Subsequently he became Canon of Westminster and Bishop of Manchester. Following in his father's footsteps he became Archbishop of York in 1929, and, in 1942, Archbishop of Canterbury. For many years he was President of the W.E.A. He edited both "The Challenge" and "The Pilgrim." His publications included "Christianity and the State," "Nature, Man and God," and "Readings in St. John's Gospel."

P. 115, l. 1. *Plato's "Republic":* one of the dialogues in which Socrates is represented as discussing the ideal type of state.

P. 118, l. 22. *Calvin:* Johannes Calvin (1509–1594), the great French theological writer and reformer. His great work was the "Institutes of the Christian Religion." Wherever Protestantism has been assailed it has sought strength in the discipline of Calvinism.

P. 119, l. 19. *Conditio sine qua non:* an indispensable condition.

The "Mayflower" sails East. From "The Wind is Rising," by H. M. Tomlinson.

H. M. Tomlinson (1873–1958) joined the editorial staff of the "Morning Leader and Daily News" when the two papers amalgamated in 1904. He was a War Correspondent and Official Correspondent at G.H.Q., 1915–1917, and subsequently Literary Editor of the "Nation and Athenaeum." He wrote many books dealing with travel and the sea, including "The Sea and the Jungle," "Tidemarks," "Gallions Reach" (awarded the Femina Vie Heureuse Prize), "All Our Yesterdays," "All Hands."

P. 121, l. 1. *The "Mayflower":* the ship in which the Pilgrim Fathers sailed from Southampton on August 5, 1620, to Cape Cod, Massachusetts, where they founded New Plymouth. The Pilgrims settled in America to avoid persecution for their religious views.

P. 124, l. 25. *Odysseus:* Greek legendary hero. On the voyage home from the Trojan War had numerous adventures so that he reached Ithaca after a total absence of twenty years. The story of his wanderings is told in Homer's "Odyssey."

l. 34. *Tagus:* a river flowing through Spain and Portugal to the Atlantic Ocean.

P. 125, l. 19. *Tripoli of Barbary:* Barbary is the northern part of Africa and includes besides Tripoli, Morocco, Algeria, and Tunis.

P. 126, l. 1. *Diana of the Ephesians:* a Roman goddess identified with the Greek Artemis. She was the daughter of Jupiter and Latona, twin sister of Apollo. She had a temple and statue at Ephesus with the characteristics of an Eastern nature-goddess. "Great is Diana of the Ephesians" was the cry of the silversmiths of Ephesus when they found their trade in shrines for Diana threatened by the preaching of Paul.

P. 127, l. 30. *Acropolis of Athens:* In early times the Acropolis formed the citadel and administrative centre of the town. The Acropolis of Athens is the most famous. Its buildings included the Parthenon, Propylaea, and Erechtheum.

l. 31. *Stonehenge :* the principal prehistoric monument in Great Britain, consists of a group of large stones arranged in a circle on Salisbury Plain.

P. 128, l. 34. *Apollo :* a Roman god, identified with Phoebus, god of the sun. He was also the god of music and poetry.

l. 35. *Gradgrind :* Mr. Thomas Gradgrind, a retired hardware merchant, devoted to " facts and calculations," who appears in Dickens's " Hard Times."

P. 131, l. 12. *Sir Thomas Browne :* (1605–1682) English writer, renowned for the rich sonorities of his prose.

l. 14. *Melville :* Herman Melville (1819–1891), an American author, and a master of English prose ; his most famous work is " Moby Dick " (1851).

l. 22. *Declaration of Independence :* The American colonies declared themselves free of Great Britain, July 4, 1776.

l. 25. *Whitman :* Walt Whitman (1819–1892), American poet.

Emerson : Ralph Waldo Emerson (1803–1882), American essayist and philosopher.

Thoreau : Henry David Thoreau (1817–1862), American author and philosopher.

l. 34. *Karl Marx :* (1818–1883), German socialist who demanded the total abolition of private property, to be effected by the class war.

l. 36. *Zoroaster :* the Greek form of Zarathustra, the founder of the Magian system of religion, probably an historical personage who has become the subject of legends. Zoroaster raised the ancient Aryan religion to a more spiritual level. He instilled the belief in life after death with eternal punishment according to the balance of a man's good and evil deeds on this earth. Man, a free agent, was the centre of a conflict between a good and an evil spirit.

P. 132, l. 2. *R. L. Stevenson :* Robert Louis Stevenson (1850–1894), Scottish author.

Revealing the Invisible. By Sir Charles Darwin.

Sir Charles Darwin (1887) was educated at Marlborough and Trinity College, Cambridge. He has been Lecturer in Physics at Manchester University and Lecturer in Mathematics at Christ's College, Cambridge, Professor of Natural Philosophy at Edinburgh University, and Master of Christ's College. From 1938 to 1949 he was the Director of the National Physical Laboratory. His publications include "The New Conceptions of Matter" and various papers in theoretical physics.

P. 134, l. 14. *J. J. Thomson:* Sir Joseph John Thomson (1856–1940), British physicist and Nobel prize-winner (1906), and President of the Royal Society (1916–1920).

P. 137, l. 25. *Röntgen:* Wilhelm Konrad von Röntgen (1845–1923), German physicist, discoverer of the Röntgen or X-rays, so named because of uncertainty regarding their nature.

Reshaping Plants and Animals. By J. B. S. Haldane.

J. B. S. Haldane (1892) was educated at Eton and New College, Oxford. He served in the Black Watch in the last war and was twice wounded. He has been a Fellow of New College, and Reader in Biochemistry at Cambridge University. He was also Fullerian Professor of Physiology at the Royal Institution and Professor of Genetics at London University. From 1937 to 1957 he was Professor of Biochemistry at University College, London. His publications include numerous scientific papers on physiology and genetics.

P. 138, l. 31. *Hormone:* kinds of internal secretion that pass into the blood and stimulate organs to action.

l. 32. *Pituitary gland:* ductless gland at the base of the brain affecting growth.

P. 141, l. 35. *Bakewell:* Robert Bakewell (1725–1795), English agriculturist who devoted himself to the breeding of live-stock. His long-wool Leicester sheep and "Dishley long-horn" cattle became famous.

Science, Natural and Social. From "The Uniqueness of Man," by Sir Julian Huxley.

Sir Julian Huxley (1887) was educated at Eton and Balliol College, Oxford. He was Newdigate Prizeman, Lecturer in Zoology at Balliol, and Fellow of New College. He was Senior Demonstrator in Zoology at Oxford University. In 1921 he went with the expedition to Spitzbergen. Later he became Professor of Zoology at King's College, London, and Fullerian Professor of Physiology in the Royal Institution. He visited E. Africa to advise on native education, and has travelled widely in America. He was a Supervisor for biological films, and is a leading light in the B.B.C. Brains Trust. His publications include: "Essays in Popular Science," "What Dare I Think?" "We Europeans," and "Evolution Re-stated."

P. 145, l. 19. *Menenius' speech:* Occurs in Shakespeare's Roman play, "Coriolanus," Act I. Sc. 1. lines 99–159.

ll. 19–20. *Herbert Spencer's work:* Herbert Spencer (1820–

1903) was the founder of evolutionary philosophy, pursuing the unification of all knowledge on the basis of a single all-pervading principle, that of evolution.

l. 21. *Sensu stricto :* "in the narrow sense."

l. 29. *Kropotkin :* Peter Alexeievich, Prince Kropotkin (1842–1921), Russian geographer, revolutionary, and writer.

P. 146, l. 27. *Malthus :* Thomas Robert Malthus (1766–1834), English author whose "Essay on the Principle of Population" exerted a powerful influence on social thought in the nineteenth century.

l. 28. *Wilhelm Roux :* (1850–1924), a German anatomist and physiologist.

l. 30. *Weismann :* August Weismann (1834–1914), German biologist, famous for his theory of descent which upheld the fundamental difference between the body cells and the germ cells.

l. 34. *Newton :* Sir Isaac Newton (1642–1727), English scientist and philosopher.

P. 147, l. 18. *Marsupials :* of the class of mammals that produce their young partly developed and carry them for a time in a pouch.

l. 19. *Placentals :* of the class of mammals that nourish the embryo in the womb.

l. 31. *Gametes :* sexual reproductive cell.

P. 148, l. 3. *Phylogeny :* racial evolution of animal or plant type.

Ontogeny : life history of individual development.

P. 149, l. 27. *Dendrites :* with branched tree-like markings.

P. 150, l. 32. *Mesozoic :* the second of the three eras into which geological time has been divided. It is sometimes called the Age of Reptiles.

P. 152, l. 10. *Dinosaurs :* large extinct reptiles, quadrupeds with trunk and tusks.

l. 18. *Echinoderms :* animals of the sea-urchin or starfish class.

l. 19. *Phylum :* primary division of animal or vegetable kingdom.

Our Home in Space. By Sir James Jeans.

Sir James Jeans (1887–1946) was one of the most famous British mathematicians and astronomers. He had been Research Associate, Mt. Wilson Observatory, Secretary of the Royal Society, Stokes Lecturer in Applied Mathematics in Cambridge University, and Professor of Applied Mathematics in Princeton University. His works on

astronomy, especially "The Universe Around Us" and "The Mysterious Universe," were very popular.

P. 156, l. 14. *Pythagoras:* the Greek philosopher, lived in the sixth century B.C. He assigned a mathematical basis to the universe, and discovered the rotation of the earth.

l. 17. *Aristarchus:* an eminent astronomer and mathematician who lived about 280 B.C. Going beyond Pythagoras, he maintained that the earth revolved round the sun, causing the seasons.

l. 28. *Copernicus:* Nicolas Koppernik (1473–1543), celebrated Polish astronomer, maintained that the planets move in orbits round the sun.

l. 35. *Galileo:* Galileo Galilei (1564–1642), Italian astronomer and physicist. He developed the Copernican theory, which brought him into conflict with the Inquisition.

Life from a New Angle. By C. H. Waddington.

C. H. Waddington (1905) is a Doctor of Science and was Lecturer in Zoology at Cambridge. A former Fellow of Christ's College, he has held the Gerstenberg Studentship for philosophy, and was awarded the first Brachet Prize for embryology by the Royal Academy of Belgium. He did highly important war work. One of his chief subjects is the study of fruit flies. His publications include a recent book on "Science and Ethics" and a "Pelican" that attracted a good deal of attention on "The Scientific Attitude." In 1947 he became a Professor at Edinburgh University.

P. 163, l. 28. *Bernal:* J. D. Bernal (1901), University Professor of Physics at Birkbeck College, London.

P. 164, l. 15. *Darwin:* Charles Robert Darwin (1809–1882), author of "The Origin of Species by means of Natural Selection" which gave rise to intense opposition but found distinguished supporters.

P. 165, l. 33. *Mendel:* Gregor Johann Mendel (1822–1884), abbot of Brünn, who worked out the theory of heredity from his experiments on the cross-fertilisation of sweet-peas.

P. 167, l. 19. *Nobel Prize:* Under the will of Alfred Bernhard Nobel (1833–1896), a Swedish chemist, annual prizes for the most important discoveries in various branches of science and the best work in literature and for peace are distributed.

Lenitives. From "Pack Clouds Away," by Bernard Darwin.

Bernard Darwin (1876) was educated at Eton and Trinity College, Cambridge. He played golf for Cambridge

1895–1897, played eight times for England *v.* Scotland, and for Great Britain *v.* America in 1922, and has twice been in the semi-final of the Amateur Championship. He has been Golf Correspondent to "The Times" and "Country Life." He served in the Great War. He has written many books on golf, a Life of Dickens, "The English Public School," and recently edited the "Oxford Book of Quotations."

P. 173, l. 9. *Ubiquitous :* being everywhere at once.

P. 175, ll. 1–2. *" There in yon brilliant window niche . . ." :* From Edgar Allan Poe's poem, " To Helen."

l. 6. *Down :* a village near Bromley in Kent.

l. 27. *Charles Keene :* (1823–1891) English illustrator, well known as a contributor to " Punch."

P. 176, ll. 10–11. *" Can I get there by candlelight ? " :* Comes from an old nursery rhyme beginning " How many miles to London town ? "

l. 30. *Trollope :* Anthony Trollope (1815–1882), English novelist whose popularity was established by the Barsetshire series of novels.

P. 178, l. 1. *Tom Smart :* the hero of the Bagman's story, related in Dickens's " Pickwick Papers."

l. 24. *Hezekiah :* King of Judah, son and successor of Ahaz. He was greatly influenced by the prophet Isaiah. In Isaiah, Chapter 38, is described how Hezekiah, sick unto death, " turned his face toward the wall and prayed unto the Lord."

P. 179, ll. 4–5. *" Or barr'd with black . . . bees " :* This quotation comes from C. S. Calverley's poem, " Waiting." (The mother is waiting for the St. John's Wood omnibus and sees all the other buses which are not hers) :—

> " I see thy brethren come and go ;
> Thy peers in stature, and in hue
> Thy rivals. Some like monarchs glow
> With richest purple : some are blue
>
> As skies that tempt the swallow back ;
> Or red as, seen o'er wintry seas,
> The star of storm ; or barr'd with black
> And yellow, like the April bees."

l. 10. *Mr. Peter Magnus's leather hat-box :* Mr. Peter Magnus was " a red-haired man with an inquisitive nose " who inquires of Mr. Pickwick as to the best way to propose to a lady.

l. 36. *" That day I overcame the Nervii " :* adapted from the line spoken by Mark Antony in his funeral oration in

Shakespeare's "Julius Caesar" (Act III. Sc. II. l. 177). Julius Caesar defeated the Nervii, 57 B.C.

P. 180, l. 32. *Pip and Joe Gargery:* Joe Gargery is a blacksmith in Dickens's "Great Expectations," Pip is his wife's brother.

P. 183, l. 25. "*Withered and strown*": comes from the second stanza of Byron's poem, "The Destruction of Sennacherib."

The Crash. From "The Last Enemy," by Richard Hillary.

Richard Hillary (1919–1943) was born in Sydney, Australia, and educated at Shrewsbury and Trinity College, Oxford. He was an undergraduate and member of the Oxford University Squadron, R.A.F.V.R., when war broke out. During the Battle of Britain he was shot down into the Channel, terribly burnt on face and hands. He spent months in hospital, and was then sent to America by the Air Ministry. There he wrote "The Last Enemy" which had an amazing success, less perhaps on account of its descriptions of the war than for its candid record of a transition from left-wing Oxford egocentricity to the attainment of the spirit that broke the enemy's assault in the autumn of 1940. Hillary was killed in the course of his duties on January 7, 1943.

P. 187, l. 8. *Mae West:* an R.A.F. life-jacket, named, with point, after the American actress.

P. 188, l. 10. *Goethe:* Johann Wolfgang von Goethe (1749–1832), German poet, dramatist, and philosopher.

P. 189, l. 26. *Verlaine:* Paul Verlaine (1844–1896), French poet.

ll. 27–30. "*Quoique sans patrie . . .*": "although without country and king, and pretending to be very brave, though scarcely feeling brave at all, I wished to die at the war. Death did not want me."

Malta Convoy. By Captain Anthony Kimmins.

Anthony Kimmins, born 1901, was educated for the Navy and became a Lieutenant-Commander and Pilot in the Fleet Air Arm. He is well known as the author of a successful farce "While Parents Sleep," and has written, directed and acted in many films. He broadcast many of the best postscripts on naval matters during the war, and seems to have been present at the most important actions everywhere from the Mediterranean to the Pacific.

P. 192, l. 1. *Martlet fighter:* American single-engined naval aircraft.

l. 11. *Ju* 88: German Junkers twin-engined bomber.

P. 194, l. 31. *Stuka:* German single-engined dive-bomber.

P. 195, l. 13. *E-boat:* small, fast motor-boat armed with torpedoes.

l. 31. *Beaufighter:* British twin-engined fighter.

The Naked Flame. From "Fire and Water," by William Sansom.

William Sansom, who was born in 1912, was in the London Fire Brigade during the war. He is the anonymous author of "Fire Over London," the record of the Brigade's experiences during the great raids. He is well qualified to write about fire. He has also written radio scripts and short stories and has composed some music. His books include "Fireman Flowers" and "Three."

P. 199, l. 28. *Van Gogh:* Vincent van Gogh (1853–1890), a Dutch painter who delighted in the use of vivid colour.

l. 31. *Turner:* Joseph Mallord William Turner (1775–1851), probably the greatest of English landscape painters.

P. 200, l. 3. *Rosoman:* one of the men in the National Fire Service who showed their paintings at an exhibition at Burlington House.

l. 12. *Leigh Hunt:* James Henry Leigh Hunt (1784–1859), English author.

l. 14. *Mr. Pepys:* Samuel Pepys (1633-1703), English diarist. The passage quoted comes from the entry in the Diary for September 2, 1666, the day when the Great Fire of London broke out in a baker's house in Pudding Lane, and in four days destroyed the buildings on some 400 acres, including Old St. Paul's and 87 churches and over 13,000 houses.

P. 201, l. 7. *John Evelyn's Diary:* John Evelyn (1620–1706), English diarist and author. The passage quoted comes from the entry in the Diary for September 3, 1666. The eye-witness accounts of these two diarists give a vivid picture of this great calamity. The fire extended from the Tower to the Temple and northwards as far as Cripplegate.

l. 25. *Sodom:* with Gomorrah, the "cities of the plain" of Jordan (now covered by the Dead Sea) destroyed, on account of their wickedness, in the days of Lot and Abraham.

l. 36. *Grenados:* grenado is an archaic form of the word "grenade," an explosive bomb.

P. 202, l. 36. *Rilke:* Rainer Maria Rilke (1875–1926), German lyric poet and author. Of his novels his "Diary of Malte Laurids Brigge" (1910), largely autobiographical, is best known.

P. 203, l. 26. *Maxim Gorki :* (1868–1936) the pseudonym of Alexei Maximovich Peshkov, well known Russian writer and revolutionary.

P. 205, l. 28. *St. Francis :* St. Francis of Assisi (1181–1226). The special note of his teaching was joyousness and love of nature and of the elements.

P. 206, l. 36. *Choreography :* the art of representing dancing by signs, as arranged in the ballet.

P. 208, l. 19. *Mae West :* a glamorous American actress and film star.

l. 20. *Jezebel :* the proud and infamous wife of Ahab, King of Israel. Used allusively of an abandoned, and also of a painted, woman.

l. 21. *Tiberius :* Tiberius Claudius Nero (42 B.C.–A.D. 37), 2nd Roman Emperor, adopted son of Augustus and of Livia. His rule was marked by his sternness, and love of luxury.

P. 209, l. 21. *Dante :* Dante Alighieri (1265–1321), great Italian epic poet. His " Divina Commedia " comprises the " Inferno " (a description of Hell), the " Purgatorio," and the " Paradiso."

Thoughts on Peace in an Air Raid. From " The Death of the Moth," by Virginia Woolf.

Virginia Woolf (1882–1941) was the younger daughter of Sir Leslie Stephen. She married Leonard Woolf in 1912. One of the most important of modern novelists, she was always experimenting, so that her novels are something different from mere fictional narrative of " characters." Among her most successful works are " To the Lighthouse," " Mrs. Dalloway," " Orlando," " The Waves," and " The Common Reader," which consists of literary criticism.

P. 211, ll. 2–3. " *I will not cease from mental fight* " : From William Blake's poem, " Jerusalem," which occurs in his long poem, " Milton."

l. 26. *Lady Astor :* Nancy Witcher, Viscountess Astor (1879), was the first woman to take her seat in the House of Commons, and as M.P. (she represented Plymouth) was interested in temperance and social work.

P. 213, l. 32. *Campagna:* the plain surrounding Rome, extending from the sea on the west to the Sabine hills.

P. 214, ll. 26–27. " *The huntsmen are up in America . . .* ": This is from the conclusion of Sir Thomas Browne's " The Garden of Cyrus," V (1658).

ESSAY QUESTIONS

1. *The Duty of Society to the Artist.* "I always assumed that art existed to make men into better citizens." Explain and discuss.

2. *A Lost Art.* Write a short essay on folk-art.

3. *The Player and his Art.* Explain in your own words why an interpretation on the stage does not become a mature expression till it has been repeated many times.

4. *Democratic Values are New Values.* Express in your own words the main thesis of this essay. *Or* "Art always aspires to the impersonal." Discuss.

5. *Voyagers to the Moon.* In what ways does the artist retain the sense of being like the man who lands on the moon?

6. *Music and Politics.* "Music, like mathematics, partakes of the nature both of science and of art, and so offers peculiar difficulties." Discuss.

7. *Sudden Spring.* "Climate helps to shape the character of peoples, and certainly of no people more than the English." Discuss.

8. *England Revisited.* "Planning is a good thing if by planning we also mean preserving." What do you consider most worth preserving in this country?

9. *The English at War.* What have been the benefits to herself and to the world of Britain's naval supremacy during the last century?

10. *The Somerset Churchill.* Write an essay in similar vein on any village you know well.

11. *The Face of England.* "The invention of the internal-combustion engine may be regarded as the greatest single disaster in the history of mankind." Discuss.

12. *High Politics or None.* "All power corrupts, and absolute power corrupts absolutely." Discuss.

13. *The New Faith.* "The ascendancy of big organisations is a prominent and unhealthy feature of modern life." Discuss.

14. *Education for Citizenship.* Write an essay describing as clearly as you can how the capacity for citizenship may be developed and trained.

15. *The Natural Order and the Priority of Principles.* "Freedom is a finer thing than order, but order is more indispensable than freedom." Discuss.

16. *The "Mayflower" sails East.* "Religion and art are one, and when they cease to be of importance to a community

we may expect the worst, and now we are beginning to see what that is." Discuss.

17. *Revealing the Invisible.* Describe as clearly as you can how the electron microscope works.

18. *Reshaping Plants and Animals.* In what different ways have plants and animals been "reshaped" during the last hundred years?

19. *Science, Natural and Social.* In what ways, according to this essay, would our social planners benefit from a study of the evolution of individuality of animals?

20. *Our Home in Space.* Explain briefly how the astronomical study of the last three centuries has reduced the importance of the earth.

21. *Life from a New Angle.* In the light of this essay, what are the main discoveries in recent biological research?

22. *Lenitives.* Write an essay on some of the consolations of the war.

23. *The Crash.* Write an appreciation of the literary qualities of this descriptive passage.

24. *Malta Convoy.* Describe as vividly as you can any other outstanding operation which has taken place during the war.

25. *The Naked Flame.* Write an appreciation of this essay. *Or* Attempt to describe a fire which you have witnessed.

26. *Thoughts on Peace in an Air Raid.* Describe an air-raid experience of your own.

THE END

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