ART IN A CLOSED FIELD

By HUGH KENNER

Fed with a vocabulary of 3,500 words and 128 different patterns of simple-sentence syntax, the computer can turn out hundreds of poems. . . . The words it picks from have to be kept in separate boxes—all nouns together, all verbs, etc. But by drastically cutting down its choice of words—so that the incidence of a subject word reappearing is greatly increased—engineers can make the machine seem to keep to one topic.

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THAT machines invented to help us with our arithmetic should indulge in a few hundred harmless doodlings with language—

All girls sob like slow snows.
Near a couch, that girl won't weep.
Stumble, moan, go, this girl might sail on the desk.
This girl is dumb and soft.

—is nothing to excite surprise. It is normal for territories the imagination has once pioneered to be occupied at last by hardware, as Lockean psychology prepared the way for camera and data-file. What seems not to have been much studied is the way creative writers and creative mathematicians have been exploring comparable processes, of which the engineers' Auto-Beatnik is merely a late and novel by-product.

I am going to argue (1) that the recent history of imaginative literature—say during the past 100 years—is closely parallel to the history of mathematics during the same period; (2) that a number of poets and novelists in the last century stumbled upon special applications of what I shall call, by mathematical analogy, the closed field; (3) that this princi-

ple has since been repeatedly extended, to produce wholly new kinds of literary works; and (4) that it is worth knowing about, and of general applicability, because it helps you make critical discoveries; by which I mean, that it helps you to think more coherently and usefully about the literature of both our own time and times past.

More than twenty-five years ago there was performed at the University of Wisconsin a piece of research, as a result of which it is now possible to say with some confidence what Joyce's "Ulysses" contains. It contains 29,899 different words, of which 16,432 occur only once apiece. At the other end of the scale, the commonest word, which is the definite article, is used no fewer than 14,877 times, and altogether the reader of "Ulysses" passes his eye along slightly more than a quarter of a million separate words, of which just 9 begin with the letter X.

Now you could make the same kind of statement about any book whatever, and it would merely be interesting, perhaps not very interesting. But most students of Joyce's text would probably grant that when Professor Hanley and his team of indexers at Wisconsin took "Ulysses" apart into separate words and studied and classified and counted those words, they were doing something oddly similar to whatever Joyce was doing when he put the book together in the first place. The closed set of words which we call the book's vocabulary was most deliberately arrived at. It was not simply Joyce's own vocabulary, but one that he compiled. And the rules by which the words are selected and combined are not the usual rules that used to be said to govern the novelist. The traditional novelist is governed by some canon of verisimilitude regarding the words people actually use and by a more or less linear correspondence between the sequence of his statements and the chronology of a set of events. In "Ulysses" the events are very simple, and are apt to disappear beneath the surface of the prose; the style, as the book goes on, complicates itself according to laws which have nothing to do with the reporting of the

visible and audible; and again and again we find Joyce inserting a word, or a combination of words, precisely so that he can allow it to carry a motif, as in music, by simply repeating it on a future page. System, in fact, sometimes took precedence over lexicography. Thus when Frank Budgen pointed out, while an early episode was in manuscript, that sails are not brailed up to crosstrees but to yards, Joyce had nevertheless no choice. "The word 'crosstrees' is essential. It comes in later on and I can't change it."

We are talking about "Ulysses" in the way Joyce at that moment was thinking of it: as a set of pieces and some procedures for arranging them. We have the author's sanction for supposing that this is one profitable way to think about "Ulysses," and we shall be coming back to "Ulysses." Let us first extend the principle a little further. For it seems that one can multiply without effort out of the literature and criticism of this century example after example of the habit of regarding works of art as patterns gotten by selecting elements from a closed set and then arranging them inside a closed field. Put this way, it sounds like a game; and my first example is the book Miss Elizabeth Sewell devoted to the world of Lewis Carroll, whose works are structured with card games and chess games. Her book is suggestively titled "The Field of Nonsense." Before the exposition has gone very far she is talking of "the tight and perfect little systems of Nonsense verse pure and simple," and before the page is finished she has invoked *la poésie pure* and the name of Mallarmé.

Carroll, she suggests, is "the English manifestation of the French logic and rigor which produced the work of Mallarmé, also labeled nonsense in its time. Carroll is perhaps the equivalent of that attempt to render language a closed and consistent system on its own; but he made his experiment not upon Poetry but upon Nonsense." Now the field of Nonsense, she goes on to show, is not blur and fusion but separation and control. Its field is, once more, the closed field, within which elements are combined according to speci-

fied laws. "The process," Miss Sewell writes, "is directed always towards analysing and separating the material into a collection of discrete counters, with which the detached intellect can make, observe and enjoy a series of abstract, detailed, artificial patterns of words and images. . . . All tendencies towards synthesis are taboo: in the mind, imagination and dream; in language, the poetic and metaphorical elements; in subject matter, everything to do with beauty, fertility, and all forms of love, sacred and profane."

Miss Sewell hazards that we may be reminded of the New Criticism; certainly she is reminded of the New Poetry, and in a remarkably suggestive essay she applies her entire theory of Nonsense to the author of "The Waste Land," that poem which so separates its materials that the problem for the novice reader, who generally has trouble analyzing poems, is in this case to get the parts back together again; that poem, furthermore, which comes upon themes of beauty, fertility, and all forms of love, sacred and profane, with so sidelong and detached a self-sufficiency. And her formulation may also remind us of the New Novel, the novel since Flaubert, who made a cult, we know, of the Exact Word.

The closed field contains a finite number of elements to be combined according to fixed rules. In order to get a closed field you have to have its elements, and it was Flaubert who took this particular step. It was he who defined the element of the novel as not the event but the word; just as it was Mallarmé who said that poems were made of words, not ideas. Consider Flaubert and the single word for a moment. I do not discover his particular mode of interest in the single word in earlier writers. Flaubert is very adept at making us *see* a common word for the first time. He is equally adept with a very large vocabulary of special-purpose words, whose air of uniqueness can attest to an accuracy of observation for which stock parts would not suffice. When he assimilates words into idioms, it is because he wants us to notice the idiom, which is commonly a borrowing or a parody. Now Flaubert's interest in the isolated word is the residue of nearly two centuries of

lexicography, which had virtually transformed the vocabulary of each written language into a closed field. The dictionary takes discourse apart into separate words, and arranges them in alphabetical order. It implies that the number of words at our disposal is finite; it also implies that the process by which new words are made has been terminated. Hence, the persistent lexicographical concern, from Johnson's day to nearly our own, with fixing the language. That Shakespeare had no dictionary and that he was less occupied with words than with a continuous curve of utterance are corollary phenomena. That Scott and Dickens, too, surrounded by dictionaries, still manifest little curiosity concerning the single word is no contradiction to what we have been saying, but simply testimony to the domination of their discourse by oral models; they think of a man telling a story. But Flaubert, the connoisseur of the *mot juste,* comes to terms with the fact that, whatever printed discourse may be modeled on, it is assembled out of the constituents of the written language; and the written language has been analyzed, by a long process which took its inception with the invention of printing, into Miss Sewell's two desiderata: a closed field, and discrete counters to be arranged according to rules.

Let us remark in passing the essential absurdity which menaces this procedure: though it obeys with clear-sighted fidelity the inherent laws of written discourse, laws which have struggled out of a long latency into explicit visibility, yet it affronts, satirizes, criticizes, frequently insults, the principles of the spoken language: the principles of the world in which language takes its origin and has its essential and continuing use: the world, we are apt to forget, where the written language has a very minor, and certainly not a dominant, place. Here is the fulcrum of that strain between fiction and what is called "life," even the verbal part of "life," which is explored with increasing freedom by a succession of writers from Flaubert to Beckett. Flaubert is especially fond of bringing the written and spoken languages into each other's presence, when his characters are talking; and what

he exploits of the written language is its air of being synthesized out of little pieces. Books, it seems, can do nothing to human behavior except contaminate it; and contaminate it with cliché. A cliché is simply an element from the closed field. When Emma Bovary says that there is nothing so admirable as sunsets, but especially by the side of the sea, she is not feeling but manipulating the counters of a synthetic feeling, drawn from reading. And Flaubert, it is well known, in carrying such principles yet further, even made lists of clichés and proposed to arrange them in alphabetical order, by key words, defining, so, the closed field of popular discourse, the pieces of which are phrases as the writer's pieces are single words. And it is unnecessary to speak of his closed field of character, three types of adulterer, for example, two types of bourgeois; or his closed field of event, a very small field indeed. Everything, throughout his novels, is menaced by the débâcle of the absolutely typical; "Bouvard and Pécuchet" does but repeat the same small cyclic motion, study, enthusiasm, practice, disaster, over and over until it has used up all the things that the curriculum affords us to study: a closed field of plot consuming a closed field of material.

It is clear that the various closed fields in which a Flaubert may deploy his fictional energies are supplied from various directions, to be superimposed, several of them at a time, in the achieved novel. The notion of language as a closed field may be attributed to the dictionary and behind it to the printing press, which insists, as does its domesticated version the typewriter keyboard, that we have at our disposal less certainly the possibly infinite reaches of the human spirit than twenty-six letters to permute. The notion of character as a closed field is traceable to the prestige of several sorts of long-range and short-range causality, historical, sociological, psychological. The notion of a closed field of significant events reflects, perhaps, the theories of probability which have been resourcefully explored and increasingly publicized from Pas-

cal's day to ours. We are all of us accustomed, in fact, to the postulates of the closed field, and it is within this set of habits we have formed that the art to which we are most responsive takes its course.

Here we should return to Joyce. We may take "Ulysses" to specify one arrangement, and in the author's judgment the most significant arrangement, of all the ways its quarter-million words might be arranged. Were we to say the same of a novel of Walter Scott's, it would be merely a theoretical statement, but when we say it of "Ulysses," we feel we are saying something relevant to the book's nature. Joyce wrote in the midst of an economy of print, surrounded by other books on which to draw. He possessed, for example, Thom's Dublin Directory for the year 1904. He possessed dictionaries, in which to find the day's words and verify their spelling. He possessed other books in which he could find lists of all kinds: the colors of mass vestments, for instance, and their significance.

Discourse, for Joyce, has become a finite list of words, and Dublin, 1904, in the same way has become the contents of Thom's Directory, in which it was possible for Joyce to verify in a moment the address of every business establishment or the occupancy of every house (he was careful to install the Blooms at an address which, according to Thom's, was vacant). Theoretically, it would have been possible for him to name, somewhere in "Ulysses," every person who inhabited Dublin on that day. Dublin, 16 June, 1904, is documented in the newspapers of the day; Professor Richard Kain has shown with what care Joyce assimilated the names of the horses who were racing in the Gold Cup, or the details of the American steamboat disaster which occupied the Dublin headlines that evening. Even the nine participants in a quarter-mile footrace are embalmed forever in his text, name by name: M. C. Green, H. Thrift, T. M. Patey, C. Scaife, J. B. Jeffs, G. N. Morphy, F. Stevenson, C. Adderly, and W. C. Huggard.

And we may note the congruence of such lists with other finite lists. There are twenty-four hours in a day, and he accounts for all but the ones spent by his characters in sleep. The spectrum has seven colors, and Bloom names them: roy g biv. The "Odyssey" can be dissociated into specific episodes, which Joyce accounts for. Shakespeare wrote some thirty-six plays; I do not know whether Joyce includes in the library scene an allusion to each of them, but it would not be surprising. The embyro lives nine months in the womb, or forty weeks; the body of the "Oxen of the Sun" episode has nine principal parts, in forty paragraphs, linked furthermore to a sequence of geological eras obtained from a list in a textbook. To adduce lists, to enumerate or imply the enumeration of their elements, and then to permute and combine these elements: this, Joyce seems to imply, is the ultimate recourse of comic fiction.

Such a diagnosis is confirmed by the procedures of Joyce's most intelligent disciple, Samuel Beckett. Beckett's second novel, "Watt," has for point of departure the great catechism in the seventeenth episode of "Ulysses"; and repeatedly it defines, with frigid deliberation, closed fields the elements of which it doggedly permutes through every change that system can discover.

Here he stood. Here he sat. Here he knelt. Here he lay. Here he moved, to and fro, from the door to the window, from the window to the door; from the window to the door, from the door to the window; from the fire to the bed, from the bed to the fire; . . .

and so on, until each possible route between bed, door, window and fire has been traced in each direction. The point of this is that, our empirical knowledge of Mr. Knott being very scanty, system must supplement it, and, nothing system has to say being open to challenge, a considerable number of true propositions can be accumulated. It is understood that the reader's principal concern is to acquire knowledge of the shadowy Mr. Knott, who seems a first adumbration of the

still more mysterious Mr. Godot; and it is a surly reader who will complain of the cognitive riches that system showers upon him. Later in the book Watt commences some experiments of his own with the closed field. Given a brief vocabulary of English monosyllables, he first commences to invert the order of the words in the sentence, and later the order of the letters in the word, and later that of the sentences in the period; then he performs simultaneously each possible pair of inversions in this set of three, and finally he combines all three inversions simultaneously; thus subjecting his little store of monosyllables to every, literally every, possible process of inversion. With a little effort, we find we can get used to any of these conventions of discourse. None of them approaches a merely random sprinkling of vocables, though each of them reminds us sharply of the perilous random seas that surround our discourses.

It might at this point be objected that we are in the presence of nothing more significant than Joyce implying a method, and Beckett playing with it. But I think it can be shown that we have come upon something much more pervasive than that. I think, in fact, that the conditions of the closed field have been infiltrating our thought processes for some decades, and that the analogy I have been proposing, an analogy which I have shown to be deliberately wielded by several eminent writers of fiction, has perhaps already become the dominant intellectual analogy of our time. We use it to lend structure and direction to our thoughts, as the Victorians used biology and as the men of the Enlightenment used Newtonian physics. The closed field is a mathematical analogy. Let me put this as flatly as possible: the dominant intellectual analogy of the present age is drawn not from biology, not from psychology (though these are sciences we are knowing about), but from general number theory.

Let no one be frightened by talk about General Number Theory. I have only three things to say about it, none of them esoteric. First, it is from the terminology of general number

theory that the word "field" seems to have found its ways into such discussions as ours. My second statement has to do with the way the mathematician uses the word "field." A field, he says, contains a set of elements, and a set of laws for dealing with these elements. He does not specify what the elements are. They may be numbers, and the laws may be the laws that govern addition and multiplication. But numbers are a special case; in the general case the elements are perfectly devoid of character, and we give them labels like *a, b,* and *c,* so as to keep track of them. The laws, in the same way, are any laws we like to prescribe, so long as they are consistent with one another. The purpose of this manoeuvre is to set mathematics free from our inescapable structure of intuitions about the familiar world, in which space has three dimensions and every calculation can be verified by counting. Once we have a theory of fields we can invent as many mathematical systems as we like, and so long as they are internally consistent their degree of correspondence with the familiar world is irrelevant. It seems illuminating to note that once you shift the postulates of the novel a little, you can have a book like "Ulysses"; but as long as you adhere to the common-sense view that a novel tells a story, "Ulysses" is simply impossible. And my third remark about number theory is this, that its concept of the field is a device for making discoveries. At first it seems to make mathematics wholly irresponsible; and then it permits a whole stream of non-Euclidean and transfinite systems; and then these queer mental worlds do turn out to describe the familiar world after all, but from an angle the existence of which we should never have suspected. The classic example is the geometry invented by Lobachevski, which uses four of Euclid's five postulates but reverses the one about parallel lines; it hung around, an intellectual curiosity, until its practical use was discerned by Einstein.

It seems useful to say of the literary arts in the past hundred years that they have undergone a strikingly similar development. For centuries literature, like arithmetic, was sup-

posed to be, in a direct and naïve way, "about" the familiar world. But lately we have been getting what amounts to the shifting of elements and postulates inside a closed field. I have mentioned the example of "Ulysses," and I might mention several more; for instance, if you drop the assumption that novels are more about people than they are about things, you open up the field where the novels of Robbe-Grillet are composed.

All this may seem too general to be of any use to the literary critic, so I had better give a few illustrations which tend to indicate how, on the contrary, a critic may find field theory highly useful. My first example should be above suspicion, since it concerns a critic who has already employed the theory to achieve what is widely agreed to be a most valuable result. I mean the British critic Donald Davie, and the book he wrote a dozen years ago on diction, in which he succeeded in moving the concept of diction forward from the handbook commonplace that Diction is the writer's Choice of Words. This is one of the most unhelpful of commonplaces, for since we knew beforehand that the words were supposed to have been chosen, there seems to be no point in introducing a term to emphasize the fact. Mr. Davie made the term useful and illuminating by invoking the analogy of the closed field, and to illustrate how pervasive this analogy has become, I should add that he does not explicitly identify it and may have been unaware of its source. What he said was this. Let us compare a writer like Shakespeare, who we intuitively feel does not employ a specifiable diction, with a writer like Pope, who does. Can we not put our intuition in this form, that certain words exist, indeed a very large class of words exists, which Pope, however many poems he wrote, would never employ? And have we not the further certainty that any conceivable word might well, for all we know, turn up in Shakespeare's usage, and at any moment? From these propositions Mr. Davie moves to his definition of a diction, which may be paraphrased like this: A diction is a selection of language, from

which the words the poet uses in this poem are in turn selected. This poem may contain, say, 400 words; but we can sense that these 400 words were drawn, not indiscriminately from the entire resources of the language, but from a special portion of it; and that special portion we call a diction. It is a subfield; and when the writer leaves us with no special awareness of his diction, it is because his practice does not urge us to intuit such a subfield. Behind Mr. Davie's illuminating pages lies the notion of the closed field, from which elements are selected; a closed field co-extensive with the language itself in the case of Shakespeare, more restricted in the case of Pope. This analogy—let me emphasize that it *is* an analogy, since it is surely not going to be urged that there exists anywhere a list of the words from which Pope selected —this analogy illuminates the concept of diction.

I should add that what Mr. Davie does for the poets who employ a diction—he was thinking specifically of the poets of the mid-eighteenth century—can be done for all writers, and usefully done, if you make your criteria general enough. It is very helpful, I find, to regard a work of art as proceeding according to certain rules (did not Coleridge say that it contains *within itself* the reason why each detail is so and not otherwise?). The rules may be changed beyond easy recognition by altering one postulate, and this is a common way for the arts to develop, although it is perhaps only now, with the assistance of field-theory and game-theory, that it is possible to see clearly that this is what has been going on. And the first business of the critic is to recover the rules of the game that is laid before him. When Joyce applied to works of literature the scholastic terms, *integritas, consonantia, claritas,* he made the phase of enlightenment, *claritas,* depend on the two preceding phases: *integritas,* the perception that the work is indeed a unity, and *consonantia,* the tracking of its internal laws. I am adding to this analysis only one thing, that the innovator commonly changes a familiar law or two, and in so doing defines a closed field of possible works within which his own work finds its place.

For my last examples I want to open up an International Theme. The writers we have been discussing are all Europeans; and the closed field as we have been exploring it has a European ring; it issues in sombre comedy: sombre because, as Eliot indicated in composing "The Waste Land" out of the fragments of previous poems, European arts have been marked for some generations now by the conviction that the game of civilization consists of a delimited number of moves, which are getting exhausted. You will remember that for Eliot the field of literature is only provisionally closed, since it was to incorporate "The Waste Land" itself as soon as "The Waste Land" was finished; I need not remind you of the argument of "Tradition and the Individual Talent," with its talk of monuments, presumably a finite number of them, occupying an ideal order and rearranging themselves somewhat to accommodate a new member.

American literature, however, has always tended to reject such a set of analogies as we have been exploring. That is one reason, I think, why so much recent American poetry has patterned itself aggressively on speech, not print, and furthermore not the speech of conversation, which is always in danger of falling into a closed set of patterns, as Flaubert saw, but rather the speech of what is sometimes called spontaneity but is actually just naked *utterance,* spontaneous or premeditated. That is because it cannot afford to imply an answer, which implies a counter-answer, which implies a conversation, which implies a game with rules and so (as Miss Sewell has indicated, writing of Nonsense) a closed field. A poem by William Carlos Williams is speech, all the time, but either it is not speech we are to think of as spoken *to* anyone, but merely *uttered,* or else it is spoken to his wife or an intimate friend, someone who might answer out of hidden depths of intimacy with the poet, but never according to a social stereotype. On further reflection we can see why the speech situations of Creeley and Zukofsky are so domestic, sometimes embarrassingly so, and why Whitman is so often to be detected bullying the reader into intimacy. Whitman

seems intuitively to have grasped how the decorums of conversation would enclose his Nuovo Mundo expansiveness in a closed field he did not want, and Williams, Creeley, and Zukofsky have devoted three careers to refining this principle. We may also note that when Mr. Eliot classified possible utterances into words spoken to oneself; to another or some others; or to God, he was leaving no room whatever for what Whitman and Williams were doing. Mr. Eliot was speaking as an American who has assumed European categories.

There is a whole set of critical puzzles which involve the meaning of the word "tone." I. A. Richards defined tone many years ago as the speaker's attitude to the hearer, whereas "feeling" is the speaker's attitude to his subject. This works well enough with a poem like "To His Coy Mistress," but to make it work all the time you have to supply the concept of an audience implied by the poem, even when the poem does not specify that audience. This extension in turn gets into trouble, since a poet like Williams does have an identifiable tone which remains difficult to define. But here closed-field theory comes to our aid; for as soon as we see that a speaker-audience relation implies just exactly the closed field Williams is anxious to evade, avoid, and that he is consequently trying to do without such a relation, and turn the poem into an autonomous utterance, then we see that what he is doing must be governed by a set of laws proper to the utterance, which are not the same laws as the familiar laws that govern discourse. We see, in short, that to avoid confining his art by the set of laws which in Europe artists have been deriving from the world around them and its image of itself, Dr. Williams has devised a new set; and the job of the Williams critic is to discover and state what these are.

My final example is Eliot's friend, the other great American poet to attempt to build a bridge between his country and Europe; a poet, furthermore, who was always careful never to close off the field in which Dr. Williams and Whitman were operating: I mean, of course, Ezra Pound.

Pound has reserved to himself many freedoms; the free-

dom to continue with the "Cantos" until he has finished them, without being bound by a specified number or scheme; the freedom to ransack libraries and languages; the freedom to incorporate any, but any, level of diction, of tone, of subject, personal or public. You may trace all that side of him to Whitman if you like, or to his affinity for high Bohemia, or simply to his need for elbow room. But he assumes all the time a closed field all the same, and that closed field is the curriculum. The "Cantos," of course, is a didactic work, the work of a university man who nearly turned into a professor. I want to suggest, in concluding, its highly American quality, which suffices to turn the closed field inside out, and make it an instrument of possibilities, not foreclosures.

What we have in the "Cantos" is, first of all, a highly compressed anthology, beginning with Homer. It reflects Pound's interest in the emperor who perceived that there were too many Noh plays and trimmed the number down, or the legendary anthologist—it used to be thought Confucius himself—who reduced the canon of Chinese folk song to just over three hundred specimens, or perhaps the committee under Pisistratus that edited the Homeric compilations into their present form. But there are examples nearer home: Mr. Adler's hundred Great Books, President Eliot's five-foot shelf. The latter it is easy to see as comic phenomena, mail-order culture. The comedy is modified when we reflect that all American learning has been literally mail-order. The first settlers were in the position of the proverbial man who must decide which twelve books to take to a desert island, and the most learned of them had to make choices. If they brought along an Iliad or a Shakespeare, it was deliberately, after much weighing of options. Everything else had to be ordered from Europe. Pound has preserved in the "Cantos" the remarkable letter in which Jefferson requested from the old world a gardener who could play the French Horn. It is picturesque, but a frontier civilization is always picturesque: Jefferson needed both gardening and music, and hoped to combine them. It is worth noting that in such a situ-

ation you cannot simply yearn after music; you must know in detail what you want next: a French horn, or a cello, or finally perhaps a Toscanini.

The first American universities were founded with gifts of books; and every American library since then has reflected a long series of deliberate acts of choice. A library like the Bodleian contains hundreds of thousands of books; nobody knows how most of them got there. If many of those same books are in collection at Yale or Harvard, it is because they were chosen and ordered for people who had some immediate use for them. For the same reason, American education is focused, as European education is not, on the curriculum. The curriculum is an act of selection. Europe is what we know, Europe plus our own past; but this knowledge is kept current by deliberate acts of transmission and selection: by continuous teaching, by rigorous exclusion and concentration: by a constant search for basic books, for the things we should know before we go on to learn other things: by a constant re-examination of the active bases of our knowledge. The library and the curriculum support one another; the library grows as the curriculum demands.

From this point of view, the kind of act performed by the poet of the "Cantos" parallels the act which for three centuries has constituted the continuing cultural history of the United States: selection, definition, choice, imposed first by frontier circumstances, later by pedagogical necessity, and finally by national habit. Even our book reviews imply a curriculum; they tell us whether to read a book or not. The British reviewer seems to assume that his audience reads everything, or may read everything, and welcomes chat about it; or else, what amounts to the same thing, that they read nothing and want access to the mastications of someone who does.

What happens in the "Cantos," in short, is the deliberate imposition of the closed field on material virtually infinite. Again we are saying something that is theoretically true of any book whatever, but in this case is relevantly true, rele-

vantly elucidative of the work's nature. And this closed field, since it implies that what is left out the author has examined and determined not to put in, offers to sharpen our attention rather than mock at our poverty of resource. Flaubert, Joyce, Beckett are the Stoic comedians of our recent literature; what Pound seems to be implying is an adventurous comedy instead, a comedy of discovery. It is not for nothing that he loosely follows Dante, who was also a man pursuing a curriculum, under the tutorship of Virgil. What the mathematicians implied when they invented the term in the first place was that the closed field is the condition of learning; as Confucius waved aside the days and nights he had spent in sleepless meditation, with the remark that he would have done better to be studying something in particular.

We are left with the makings of a paradox, which may be stated in the following way. Beckett in one of his novels has Molloy sit on the beach to meditate a problem of groups and cycles. He has before him the elements of a closed field, sixteen stones; and his problem is to suck on each of them, and suck on each in turn until he has completed the set, and then begin again, without duplication; and he will neither number the stones, nor contrive sixteen pockets to put them in. He has four pockets only; and the problem is as heavy as the sort of problem that confronted Newton when he was required to invent the calculus. The whole point of the image, I think, is this: that in sucking sixteen stones, however systematically, there is appeasement of a kind, and satisfaction of a kind, particularly satisfaction of the instinct for order, but there is no nourishment. Yet in reading Beckett's account of this operation there is not only laughter, but also nourishment for the affections and the intellect; and it seems perfectly appropriate that we have been quick, in America, to place Mr. Beckett on our curricula. One way or another, when it is focused by art, the closed field becomes that point of concentration which in proportion as it grows smaller concentrates more intensely the radiant energies of all that we feel and know.