



SEMANTOGRAPHY SERIES NO. 147

PROFESSOR LANCELOT HOGBEN AND SEMANTOGRAPHY

A Correspondence with the Inventor of "Interglossa", author of "The Loom of Language" etc.

The books of Professor Lancelot Hogben "Mathematics for the Millions" and "Science for the Citizen" have caught my fancy at an early stage of my work. Already in Shanghai, shortly after the Americans liberated the city in 1945, an American officer, whom I introduced to my work, referred me to a new book of Hogben published in 1944 under the title "The Loom of Language". On arrival in Sydney in 1946 I lost no time to read it. It was written by Hogben and Dr. Frederick Bodmer. It contained large paragraphs dealing with the language planners and especially with the proposals of Leibniz, both to spoken and written language and to his idea of a universal symbolism. Moreover, Hogben has invented a new international language Interglossa entirely on Greek word roots (Penguin Books).

I was therefore intensely interested in Hogben's work on language and I was intensely hopeful that he will take kindly to my work. Moreover, the book "The Loom of Language" was headed as a book of a Series under the title "Primers for the Age of Plenty". Nr. 1 in this Series was "Mathematics for the Million", Nr. 2 was "Science for the Citizen." Both of these "Primers for the Age of Plenty" were written by Hogben himself. However, Nr. 3 was "The Loom of Language" with Bodmer as co-author, and an announcement was made that Nr. 4 will be "History of the Homeland" the author of which will be Henry Hamilton. Seeing that Hogben accepts into his "Primers" also other authors my hopes were great that he might concede to a fifth primer under the title "Semantics for the Citizen" and/or "Literacy for the Billion" or something. In short, a book about my work.

I wanted to write to him immediately after reading the "Loom of Language". But I felt that it would be better to wait until I have finished my manuscript. I thought it will take me 1 year to write it. It took me 3 years. Not before 1949 could I set out to contact people. Before that I had to get permission from the publishers the books of which I quoted in my 3 volumes. I got permission from Allen and Unwin, publishers of "The Loom of Language". Penguin Books, however, informed me that the copyright on the book "Interglossa" is held by Prof. Lancelot Hogben himself, and they gave me his address. I wrote to him a short letter, asking for permission to quote from Interglossa. With great delight, I received the following short note:

Department of
Medical Statistics

Queen Elizabeth Hospital,
Birmingham 15.

Professor:
Lancelot Hogben, F.R.S.

Telephone:
SElly Oak 1311.

From Professor Lancelot Hogben, F.R.S.

14th February, 1949

Dear Mr. Bliss,

Many thanks for your letter. Of course, I shall be delighted to have anything I have written quoted in your book, the scope of which sounds most interesting.

Wishing you all success in your venture,

Sincerely yours,

(Sgd) Lancelot Hogben.

I quote this and the following letters in full. I feel sure that Hogben will not mind, seeing that his demeanor is one of utmost friendliness and cooperation.

These friendly words which hinted (for me) future cooperation made me very happy. I resolved at last to inform Hogben of my work, and I wanted to show my special appreciation of him by not referring him to my manuscript, but by giving him a personal demonstration in a personal letter. This letter took long in planning and writing and amounted in the end to not less than 15 closely written quarto pages. I started the letter on the 19th June, 1949 and finished it on the 5th July, 1949. I felt that he might be shocked when receiving such a long letter. I therefore posted first the following short air letter.

5th July, 1949

Professor Lancelot Hogben F.R.S.,
Department of Medical Statistics
Queen Elizabeth Hospital,
Birmingham 15.

Dear Professor Hogben,

In your letter (14/2/49) you kindly consented to the use of quotations from your books in my manuscript, and as you said that the scope of it "sounds most interesting", I sat down now that my manuscript is finished - to tell you something about it, and to thank you for your kind permission.

I intended to write to you a 2 page letter only, but - as the subject is so unusual, I feel the necessity to say more and more about it, until the letter went completely out of hands. And, I do not dare to send it off right away without a fair warning about the impending disaster, which is (when you read this letter) fast descending upon you (300 miles per hour).

This letter is the forerunner. Even so, I am simply afraid to tell you the whole truth of what is in store for you. I therefore resort to a much used practice : let somebody else say it. In short : a quotation. And here it is from the book "The World Sensorium" by Oliver Reiser, Avalon Press, New York, 1948 :

"The central difficulty with Humanism has been that it has tried to put an immensely simple message into WORDS, whereas such a message can only be written into the form of a universal picture language. The job is to find a layout, a picture basis, so simple and so huge that it is useable by anyone who has mastered the movies or can punch a radio panel".

Well, I believe I did the job and found the simple layout. Whether the message of Humanism can be said in it, is not for me to say. I think, yes; and my work is permeated by, what you call Scientific Humanism.

Your "Primers for the Age of Plenty", especially the Loom, helped me greatly, especially in the final writing. Now my hopes are that you might be interested in my work as a new Primer, that you might write a preface, or edit it, or re-write the scientific basis in a common authorship, somehow among the famous lines, let us say

LITERACY FOR THE BILLION and another primer SEMANTICS FOR THE CITIZEN

The manuscript is already in London (nicely typed and duplicated, therefore readable without strain). If you have overcome my impending letter and find still courage to face my MSS you may ask for it. In these hot days - I hope that it may even amuse you.

Yours sincerely,

C.K. Bliss

This was the introduction to the following monster letter. The reader of this issue may chide me for writing such a large letter. He must understand that I wanted to give Prof. Hogben an extensive outline of my work. My work was laid down in 3 large volumes. This extract could therefore not be put into a few pages. It had to be that way. In any case, when I sit down at the typewriter typing an exposition of my work to someone, I feel as if I

would talk to him, and as if he would put to me sensible counter arguments. I feel then that I have to deal with such counter arguments, right on the spot, now. And this makes my letters longer. I just can't help it. Later experiences have borne out that I was correct. Counter arguments are there en masse. And I have found that no matter how much I write, the counter arguments still persists in the minds of the people so addressed. Senantography is too novel an idea for the general public. And even with people, who know that the idea is actually 300 years old, the counter arguments are there nevertheless. Here is then my exposition as I wrote it to Prof. Hogben.

Sydney 19th June, 1949

Professor Lancelot Hogben, F.R.S.,
Department of Medical Statistics,
Queen Elizabeth Hospital,
Birmingham 15.

Dear Professor Hogben,

The words in your answer (14/2/49) : "I shall be delighted to have anything I have written, quoted in your book, the scope of which sounds most interesting" have warmed the cockles of my heart. Much too strong for polite expression, your words ring genuinely and have only rounded off the picture of your personality, which I have gained from your books. I feel therefore a strong hope that you might be interested in my work, and in the depth of my heart, there is even a faint flicker of hope, that you might even help it along, or even assume the editorship, as you did with the LOOM OF LANGUAGE. Of all fantastic, but practicable projects brought forward in our times, this is surely one of the most fantastic, and its practical application and possible effects may well be far reaching. Being sure that you are interested in anything, which might be a "Primer for the Age of Plenty" (Primer in the most literal sense of the word). I take the liberty to give her below a short outline of my work.

In the chapter "Pioneers of Language Planning" in THE LOOM, you and Bodmer told of Dalgarno, Wilkins and Leibniz, who were excited about the news from China: "A novel way of writing". With regard to my person, the position is reversed. I am a nobody, an industrial research chemist, and instead of China reaching me, I went to China. But the excitement was of a similar nature.

I remembered my labours in university libraries, where I became painfully aware of the truth in your words in INTERGLOSSA: "Men of science, who have to turn to journals published in many languages for necessary information, are acutely aware that the babel of tongues is a social problem of the first magnitude".

In my youth I was interested in Esperanto, but the failure even of compulsory teaching of foreign languages in school, convinced me that the mother tongue is an irresistible force, somehow like gravitation (think of the many foreign communities in the U.S., Canada, Australia, etc. where the mother tongue is spoken even in the fourth generation). Esperanto is a "foreign" language too, and probably for this reason, many scientists have so far declined to learn a world auxiliary. UNESCO has completely banished any work on such projects, which decision affects also your INTERGLOSSA.

But a writing, which anyone could read in his own mother tongue just as $1 + 2 = 3$ could be read in any language, is a quite different idea, and you are the first modern language planner who recommended in INTERGLOSSA (p.40) that "Those who write Interglossa should freely use internationally current ideograms."

My excitement was great, when - after some study - I could read Chinese newspaper headlines in English, in French, in German ... why, here perhaps was a way to a new world auxiliary for international linguistic communication by reading and writing. This might be a stepping stone to a later spoken language and INTERGLOSSA could serve excellently because it is built according to analytical word formation and order.

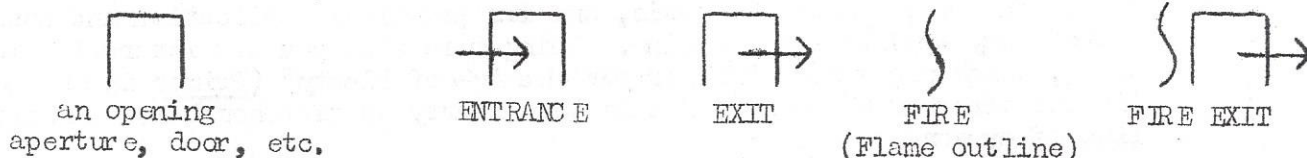
However, such a "symbol writing" must be a very simple one, not like the many thousands of cumbersome and overcomplicated Chinese characters; and it

must be writeable on a simple typewriter.

The Japanese segregated my wife and me, together with many thousands of other unfortunates. There were the blackout evenings, the air raids, the often unbearable anxiety about the next day - just the right set-up for me to jump headlong into a most exciting adventure: to use the scientific method and especially my training as analytical chemist for the analysis of the meanings of words, for the finding of the "elements of meaning", allotting a non-arbitrary symbol for each, then building up compound symbols for any meaning.

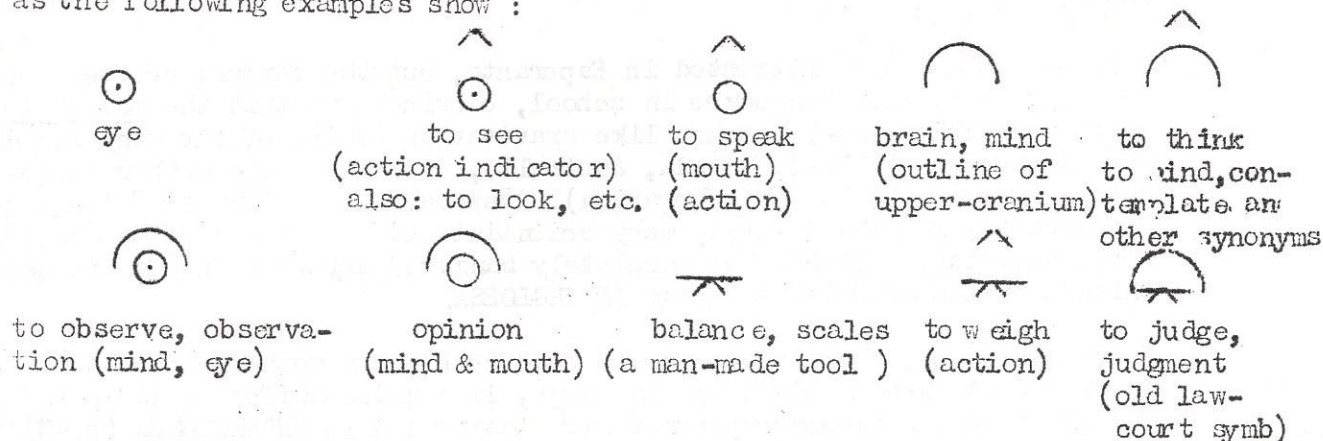
- You may imagine my excitement, when I found out (after years of work) that
- (1) I could express most meanings with only about 100 symbol elements,
 - (2) That these symbol elements are almost self-explanatory, because they show a simplified outline of things
 - (3) That they could be written with an adjusted typewriter of ordinary size (which carries the small letters of the alphabet too)
 - (4) That a quarter of a symbol elements, are the "internationally current ideograms" 1 2 3 4 5 6 7 8 9 0 + - x - = ? ! etc.

Now, you may be interested to see some of my symbols. Herebelow are a few examples and they show you too, how and where such symbols should be employed. I am no fool to expect that people will start to write a letter, which anyone could read in his mother tongue, (although this is simple and possible). Ideographic symbols should be firstly employed where the language barrier must be bridged, and a start has already been made on the highways where ideographic symbols are replacing word symbols. Here are a few of my symbols for public places, conveyances, etc.



The native words should always be printed beneath the symbols. In French speaking countries SORTIE, in Spanish speaking countries SALIDA. Thus, the natives would learn the meanings of the elements, would recognise them elsewhere and in combination with other elements. I use a few indicators, which are placed above the symbols to indicate for instance open, closed, inflammable, etc.

It might well be, that the international organisation of fire-brigades, insurance companies, etc. would adopt such symbols for public places, cinemas, theatres, etc. etc. Then one by one, other human activities could be covered. Unbelievable as it seems, even highly abstract meanings can be simply conveyed, as the following examples show :



Again I wish to stress, that these symbols should only be used as an auxiliary help. If scientists adopt them, they should only use them as "mortar", as connecting words for the thousands of words already used in science, composed from Greek and Latin roots. And such lines, readable in any language should only be used for short abstracts and graphs with the native words underneath (English in Anglo-American journals, French in French scientific journals, etc.) This, as said before, would be a step for the later introduction of Interglossa. Some of the symbols above could be used for instance in a medical report: "I observed intussusception of ileum and colon". "I judge it to be endometriosis of pelvis." in which the underlined words are already used by

doctors the world over. My manuscript contains a large chapter on the application for medicine, and I have translated portions from the British Medical Journal.

In chapters on physics, chemistry, engineering, etc., I have shown how physico-chemical and engineering tables (which are already mostly composed of numbers and ideograms) can be made fully international, by using also symbols in the headings of the columns. To-day scientific and technological books contain thousands of tables, statistics, and graphs, which are unreadable for the science worker who can speak only Portuguese, or Finnish. As you see, the symbols are very simple and with them a Doctor say in Finland can start a correspondence with a fellow doctor in, say Pakistan about their life work on the same subject. Such a correspondence may have far-reaching effects for humanity. In my manuscript I propose an international exchange of short abstracts (a few lines only) printed on cards, having filing indexes, etc., issued by the universities and distributed by an international organisation. Anyone, a doctor, an engineer, a hospital or a factory could subscribe to receive only those abstracts, which are of interest to the subscriber. Moreover, a man in a god-forsaken place, who has no possibility to reach the whole scientific world or cannot get his work published, may duplicate on cards of the prescribed size etc. a few lines about the results of his work, and these cards would then be distributed (together with all the other cards) to all subscribers through the international exchange organisation. Thus he may reach the scientists interested - and even correspond with them, each one writing in his particular mother tongue. Such cards printed or duplicated (mimeographed) for a large number on interest people the world over, may cost only about the cost of paper, and scientific foundations may see to it, that they are distributed gratis.

However, linguists may find my idea impossible, considering the tremendous differences in languages, grammar, word order, etc. etc. etc. in all different languages of this globe. But the difficulties disappear, once you look at language not as a grammarian, but as a chemo-physicist. Water is H_2O in every country, although written and pronounced eau, aqua, agua, voda, wasner, etc. etc. Consequently there must be a common structure in all and every language. As language is invented by man to describe the physical - and mental - world, it follows that the common structure of all languages must be structurally related to the real structure of the world. In other words a common "grammar" may be built up, based on the natural sciences. If I write in symbols

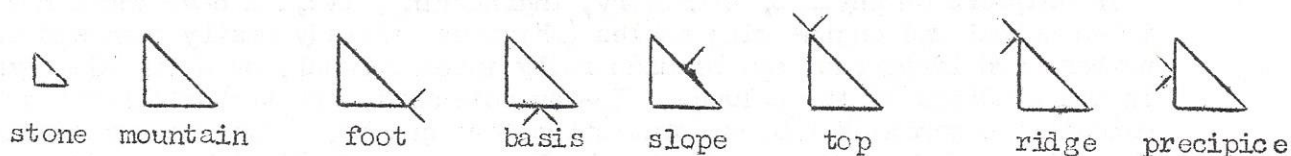


these actual happenings are independent of any country or any language, and to describe them properly we need to know only a little of chemistry for the stone, of physics for the fall, of biology for man and of psychology for thought. However, the little knowledge needed can be easily taught to boys and girls. Matter, including a stone, is anything which you can touch (and this includes a meteorite of a far away star) etc. Action is a movement of matter in space and time (and this includes the mysterious circlings and movements of corpuscles, which form the cells of our brain, and produce thoughts - Heaven knows how). We shall see later on, how such teaching (which can start already in the kindergarten) may have the most far reaching effects.

You may ask, why I have symbolised a stone by a triangle, and you may rightfully doubt that about 100 symbol elements only, are sufficient to symbolise the multitude of things in our world. Let us take therefore the meaning of stone. It may be said that a stone is a part (a division of matter) of a mountain. Or we may say, that a mountain is a big stone or a multiple (multiplication) stone, which in itself is a piece (or division) of matter of our earth. And we may symbolize the meaning of mountain as a big (much) piece of earth matter, above the earth line (horizon). Thus we would arrive at a symbol compound, containing the symbol elements, earth, matter, division, (for part) multiplication (for much, above line of earth).

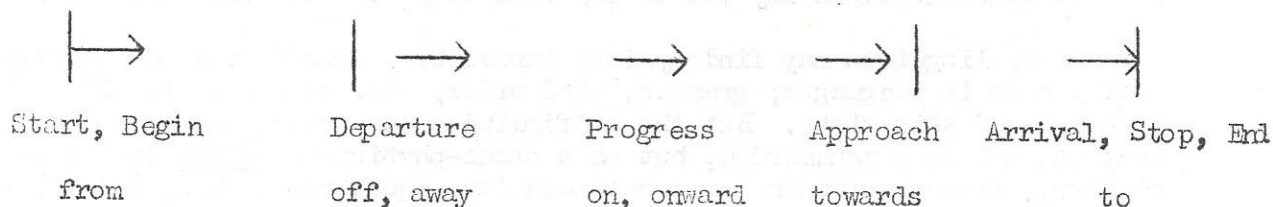
But this would form a horrible symbol compound, much like a Chinese character (although they are quickly glanced over and understood by a Chinese). Inst-

ead of such a compound we simply draw a symbolized, schematized outline of a mountain, and we now see that the symbol for stone is only the diminutive for mountain. Moreover, by using a little arrow head as a pointer we can convey easily many other meanings:



Many more meanings (for geology and mining) can be similarly symbolised, as shown in my manuscript. In fact, the basical elements of meaning are so few (when you start to reduce them to more and more basical meanings) that I have only about 50 symbol elements, and so, having another 50 to fill my hundred, I have generously accorded the symbol for mountain a place as a symbol element, although the meaning can be reduced, just as the foot of a mountain is the lowest point of piece of earth matter, etc. etc. the top the highest point a ridge, the high-est line of piece of earth matter, etc. etc.

Once you start to examine language as a chemo-physicist, you make start-ling discoveries and it does not matter, whether such reasoning is ridiculed (a fate, which befell any new idea) or not. But the position is this: if language describes the physical world, than primitive man in inventing language must have subconsciously used words, which conform to modern findings in physics, only recently discovered. Take for instance the following of my symbols:



Now these symbols appear almost self-explanatory, and they can be used advantageously for timetables for railways, ships, buses and planes as well as for the arrival or departure of a foreign minister or the moon for the eclipse rendezvous. In fact, the arrow is already used the world over as an international ideogram. Four of the above symbol compounds show a line, indicating somehow a post, like the starting or winning post in a race.

Now, it is easy to explain to a boy or girl that there is no post rammed in somewhere in the universe from which we can make absolute measurements. The earth, the sun, the milky way spiral, the constellation of Hercules, all are moving. If we want to make any statement about a start or an arrival, we must state our system of reference, from where and where to From London to Glasgow or Start: London; Stop: Glasgow. In our symbols we must "draw the line" and state our system of reference.

This explanation of the relativity of space meanings is sufficient for the semantics of the above symbols. We do not need to bother the boys and girls with further implications of the theory of relativity. But once they have grasped that these meanings are all relative, they would not fall prey to word charlatans who juggle with the word Progress. Today, politicians of the extreme right or left need only to make a "Progressive Housewives Association" and have hundreds of thousands of people falling for the word.

"Progress?" might a future citizen ask, "where to, what line are we approaching? More hospital beds or more camps for political prisoners?"

I have anticipated some later paragraphs on the semantics of my symbols. Let me return to the physics in language.

In 1908 Minkowski wrote down his famous formula, in which he treated time similiarly to a space dimension. But primitive man has done this for thousands of years. He treated time as a linear dimension and used the same words for space and time. We say :

Start; London, 8.45 a.m. Stop : Glasgow, 11.15 p.m.
or simply: From London to Glasgow, from 8.45 a.m. to 11.15 p.m.

Many more words at, about, before, behind, between, within, past, near, etc. etc.) are simultaneously used for space and time in all languages, and this insight simplifies the symbolisation. But there is more to it.

On page 134 of THE LOOM there is an important chapter, titled "The Anarchy of Words". There, you and Bodmer are concerned with the particles "the most capricious words" and on page 33 you reveal the most unbelievable fact that they make up about 30% or a third of the words used in language. In fact, they do create anarchy in language and make translation often a nightmare for the student. I wrestled with them for 7 years, until I hit on a very simple working theory, applicable to all and any language.

Particles, I consider as "shorthand words" invented by man for fluent continuity of speech. It is awkward to pause and hold your breath when saying "Start London. Stop: Glasgow. It is easier to say : "From London to Glasgow". Consequently, there must be a "big" meaning for each "shorthand word" (particle) and in the line below the words Start, Departure, Progress, Approach, Arrival, you find the equivalent shorthand words: from, off, away, on, onwards, towards to. And for every particle there is a big word meaning, and they are few in numbers. Take the particle because. It is the shorthand word for Cause. Instead of saying awkwardly : "The ocean rises. Cause: Moon." we say more fluently "The ocean rises because of the moon."

You and Bodmer have hit on a good idea by showing the meaning of the particles in pictures of actual happenings. I have done something similar in a more schematised symbolisation. And this method clears up much confusion. The worst particle in the English language is of (and its equivalent in other languages). Take the words

The treatment of father
it may mean that father is a physician who uses a special treatment. But it may mean also that father is the direct counterpart, a patient, who is treated. And here is this:

The government of the people
It can be used and understood both ways, that the people is governed, or that the people does the governing.

The symbolisation is simple. I use the current mathematical ideogram to indicate a relation.

$a > b$

$b < a$

In mathematics the ideogram is used only to indicate that a is bigger in numbers (value) than b . I have somewhat extended the meaning of the ideogram. It shows a relation between thing and things, or action of or on things. The following symbols show also how I symbolize the particles; I draw them simply as a diminutive of the "big" symbol meaning.

$>$

relation

$<$

relation

$>$

of
(on, about)

$<$

of
(on, by)

When posed between the symbols for two things, for instance house of mine, the symbol indicates firstly a relation between me and the house. Furthermore, according to the direction of the sharp point of both lines, it will show on which side there is the more important thing. In this case, it is my person, and the relation symbol will indicate a probable ownership: house of mine.

If however, an action is related to thing, like in treatment of father the direction of the pointed lines show what actually happens

treatment $>$ father
of

treatment $<$ father
of

In the first statement, father is the passive, the somewhat less important part, the victim. In the second statement, father is the active, the important agent. And so these little particle symbols lead directly to the active or passive transitive action indicator, when placed on top of a symbol,

father treats, or father is treated. You may be interested to know the symbol for medical treatment. I use a simplified outline of the rod of Aesculapius. Father is symbolized by the element man (male human) and the outline of a roof, indicating, protection, care, etc. In fact a father, to be a father must be able "to support a roof"

						
Rod of Aesculapius	medical (my symbol)	Treatment medical action	a treater medical man (active)	a patient (passive)	roof (care, protection)	father being treated

I could now show you how my symbols look for Government of the people. It's revealing, it's interesting, it's exhilarating, but this letter, which should have had no more than 2 pages, is growing too long, I write, and I always feel that I have to say something more or show you that my symbols are simple and they can express what I want them to express.

Now, going back to physics in language, take the word government. It's ambiguous. It can mean the action (energy spent during a time interval) the action of governing. But it may also mean matter, namely the men, who do the governing, or the government on a steam engine (the two balls acting on centrifugal force). And this leads us to a most interesting group of words, which show the dual aspect, standing for matter or energy, or both.

The people, who read newspapers the world over, suffer at present from an overdosis of articles about atomic energy; much of them contain in my opinion irresponsible nonsense. But what I want to say is, that there is no difficulty to tell the school children about the conversion of mass and energy, and about the theory that mass represents energy and vice versa.

Now, in some sort of crazy analogy, it seems that man, in inventing words to describe the physical world, has subconsciously known this for a long time, and he uses words which have that dual aspect, mass and energy. Take the words writing and building. They stand for both. We may extend the analogy further. The action (energy by time) of writing when spent, has been transformed into the mass, the writing. The same is with building a building. The action of making a selection may take only a few minutes. The mass, the selection may then be displayed for everyone to see.

When you examine the words in the languages, you find that thousands of words have the dual aspect and are used both ways.

Now, this may be dismissed as a far fetched simile, and you do not find it in books on grammar. But listen to Ogden and Richards, who wrote in their "Meaning of Meaning":

"The third subterfuge, the utraquistic, has probably made more bad argument plausible than any other controversial device, which can be practised upon trustful humanity. It has long been recognized that the term "perception" may have either a physical or a mental referent. Does it refer to what is perceived, or to the perceiving of this ..."

In my opinion, the authors, who are not accustomed to think in terms of the physicist have not realised that this duality is not confined to "physical" and "mental" aspects, but to the quality of the physical world in general. It is true, that many words refer to actions of our senses (as the energy of perceiving, and the mass perceived, both covered by the word perception) but thousands of words do not refer to sense reactions, and stand for both aspects as for instance addition, division, a cut of beef, etc. etc.

In my symbol writing this confusion cannot occur. The symbol stands either for mass or for action, both indicated by small indicators on top of the symbols. If the symbol outlines a material thing, the indicator $\square$ (resembling a crystal) is not needed, as shown in the symbols for man, door, etc.

Now a fool once on his way, cannot be stopped (that means me), and you may ask: "What about the quantum theory. Have you also discovered a counterpart in

language?"

"The problem of quantum theory", said Heisenberg, "centers on the fact that the particle picture and the wave picture are merely two different aspects of one and the same physical reality". And Korzybski said: "We should expect that the action represented by the number 1 would be most interesting and would eventually represent the indivisible atom of action. The modern quantum theory seems to favour such a point of view."

From my work in industry, I know that a far-fetched analogy, used as a working theory (although false) may lead to practical results, and this should be an apology for the coming paragraphs. In any case, ridiculous as it seems, I have discovered something which many grammarians have overlooked so far: the Unit of Action word. There are thousands of such words.

Take the words to hit, hitting, to rotate, rotating, to revolve, revolving, etc. etc. With regard to hitting there is one indivisible "atom" of action, 1 Hit. There does not exist anything like a $\frac{1}{2}$ Hit. For the grammarian it is only a noun, but there is a great difference for the physicist in the two nouns, The Hitting and The Hit. Similarly, but not so drastic, we have a Unit of Action word for rotating, namely 1 Rotat-ion, or 1 Revolut-ion. Some such words have no special ending, like 1 Turn, but some have the ending -ion, or -men like in 1 Treat-ment, 1 Advertise-ment, or -ure, like in 1 Mixt-ure (from mixing), 1 Explos-ure, etc. etc. And some of them have the dual MASS-ENERGY aspect, as for instance Selection, Advertisement, etc.

Now to the practical result to justify the analogy.

Whatever may be said about Basic English, one thing is sure, it is a work of importance, similar to your work on Interglossa. I for one, know that I would never attempted work on a symbol writing, if I would not have known that Ogden can do it with 850 words only. That such a word economy is possible in a living language is really remarkable. Promoters of Basic English like to quote H.G. Wells who said in one of his books (The Shape of THINGS to Come) that in the next centuries Basic English became the lingua franca of the world. However, Wells said something else too, which the promoters are very loath to quote. Wells created a figure, a Mr. Rudolph Boyle, a language teacher, who had invented a method, which enabled Englishmen to speak Basic English.

I know from experience, that the greatest opposition to Basic English, does not come from the foreigners (who are delighted, that there exist a short cut to English) but from the English speaking people, who actually discourage learners from learning Basic.

Now, it may be said, that to make English people to say "I have knowledge" instead of "I know", or "I make an advertisement" instead of "I advertise" might lead to civil war (to paraphrase Bernard Shaw). But this is the way with Basic.

One claim startled the world. "There are no verbs in Basic English" said Ogden. Although Ogden's "operators", 18 in number (come, get, give, go, etc. etc.) are verbs, it is really amazing what he can do with these 18 words. But are there no other verbs in the Basic list? What about shake, smile, smash, sneeze and more than 200 similar words of the 850? They are nouns as shaking, smiling, smashing, sneezing? Are they not verb forms? No, said Ogden, they are adjectives, qualities" (the girl is beautiful, the girl is shaking) and sure enough, you find among the list of qualities also boiling, waiting, etc.

What then is the secret and the difficulty in Basic? In my opinion, Ogden discovered that many words have that dual Mass Energy aspect. They can be used both ways. I see the selection, I see the smash. These sentences may mean the action, but also the thing transformed by the action. But why must I say "I make a smash" instead of the simpler "I smash"? If Ogden lists hammer, water, question, and does allow to say "I am hammering, watering, questioning, smashing", why does he not allow to say "I hammer, I water, I question, I smash"?

The difficulty, as I see it, is that some Unit of Action words have that special ending, -ion, -ment, -ure, etc. If the verb form is allowed by simply saying "I smash", this is impossible with the special ending words "I selection, I advertisement, I building, I knowledge, etc. If these special endings would

not exist, then it would be simple.

The remedy, as I see it, is not to revise the Basic List, but to adopt the viewpoint of the chemist with regard to words meaning matter, mass, and the viewpoint of the physicist with regard to actions. The division into nouns and adjectives is to be abandoned, and with it the claim "there are no verbs in Basic English". Lastly the Unit of Action words with special endings are to be written with a hyphen, select-ion, advertise-ment, know-ledge, etc. and then the formation of to select, to advertise, to know, etc. result easily. For English speaking people, the awkward round-about way disappears. And if they use a word which is not listed among the 850 words, the listening foreigner is in the same position, as any Englishman who hears a word, which is not in his list of known words.

I am sure, that you hold strong views for Basic, as one way (another is Interglossa) towards linguistic international communication, and I hope that you would agree that my treatment of words leads to a clarification. And I believe, that my symbol writing, if not used for inter-linguistic communication, could even be used to teach children the working of their mother tongue, a new way to teach the most horrible subject "Grammar" in a pleasant way.

But the most exciting part of my story (exciting for me) is not yet told. In 1945 the U.S. army liberated Shanghai and an army officer told me about your LOOM OF LANGUAGE and INTERGLOSSA. He had even a prospectus about the LOOM in his valise. These two books were published during the war, and naturally, I didn't know them. But I was equally ignorant about the theory of language planning and about the theory of meaning, semantics. The only book I could find was Stuart Chase's THE TYRANNY OF WORDS. It excited me very much and I longed to get your LOOM. In the meantime I gave a lecture to a group of U.S. Army officers of the educational branch of the army, China theatre, and then a lecture to the members of the Rotary Club, Shanghai. Especially, the last lecture ended with tremendous cheers, and they urged me to put my work into book form.

In July 1946 I reached Australia and got your LOOM. It made exciting reading. I saw that I had tread lightly over chasms, ignorant of the language difficulties, but I saw too, that I have gone the right track in eliminating unnecessary grammatical adornments in language. If I come to think of, grammar was my worst item in school and I hated it as only a boy can hate. This background helped me to slash away to the right and to the left, until only those components remained, which the physicist needs to describe an event.

But there was more excitement in store for me. Through the LOOM I learned of Dalgarno, Wilkins, and Leibnitz, and I found even the 300 year old treatise TOWARDS A REAL CHARACTER by Wilkins. There I saw that Wilkins had used symbols which are wholly arbitrary ( meant day, for instance), whereas almost all symbols of my system are schematized outlines of the real things (see the symbol for day = sun over earth line) in a coming paragraph. Moreover the words of Dalgarno ("to remedy ... the absurdities which all languages are clogged with ... to cure even Philosophy itself of the disease of Sophism") the words of Leibnitz ("a system ... in which reality would be ... more adequately represented ... a medium, which will guide the mind as do the lines in Geometry ... in giving thoughts less surd and verbal than we now have ...") started new thoughts, which I did not have during the foregoing 4 years of work on symbol writing.

"Could it be", I asked myself, that my symbols act in the way indicated by Dalgarno and Leibnitz? Could it be, that the knowledge of my symbols could be helpful for the citizen to-day in the war of words, raging in the newspapers and political discussions everywhere? Could it be, that the knowledge of my system, when taught in the schools, could make innumerable controversies between husband and wife, father and son, etc. ridiculous, senseless, impossible?" The outlook was almost breathtaking.

I examined my symbols and my system, and to my great astonishment, it worked as prophesized by Leibnitz (who never attempted to draw up even one symbol). Intoxicated by this tremendous outlook, I invented a name for my symbol writing: SEMANTOGRAPHY a meaningful writing, in any case more meaningful than our present phonetic writing.

Having read so far, I am sure you will be interested to know how the semantics of my semantography works. Although it is impossible to explain this in a few paragraphs, I shall try to give a rough outline.

Let us assume the planet on which we live in the state before the emergence of man. Let us look at it from a far away star. Then we would have all the inorganic and organic entities, stones, water, mountains, trees, quadrupeds, hexapeds, birds, plants, etc. etc. They are all matter or (as I call it) chemical THINGS, and they perform physical ACTIONS in SPACE and TIME. Looking at them, we could invent names, words, symbols for these chemical THINGS, and words and symbols for their physical ACTIONS and words, symbols referring to SPACE and TIME.

Now man appears. He himself is a chemical THING, and so are the parts of his body, especially the ears, eyes, nose, mouth, hands, etc. And these chemical THINGS perform physical ACTION. Again we can invent words, and symbols for these THINGS and their ACTIONS, to hear, see, smell, speak, taste, eat, grip, touch. We may call these actions SENSE ACTION (or REACTIONS).

Lastly, there is the mind of man, again consisting of chemical matter, and performing physical ACTIONS, which bring about the co-ordination of all other SENSE REACTIONS and especially the formations of thoughts.

Again we form word symbols for all these activities performed by the senses and the mind. To these groups the following words will belong: loud, noisy, musical, cacophonous, beautiful, ugly, attractive, fragrant, disgusting, speaking, chatting, gossiping, tasty, rough, smooth etc. etc.

Then there are the word symbols, which refer solely to the reactions of man's mind, as for instance: like, dislike, good, bad, right, wrong, conscience, etc. etc.

All above words refer to sense reactions or evaluations, which we make with our senses (including the mind), and I call them SENSE EVALUATIONS.

Now the matter is very simple. All symbols for the abovementioned words must show first the symbol of a human sense organ. The words referring solely to mind evaluations will show the symbolization of the mind (curved outline of upper cranium) and we may have combinations as shown in the few examples on page 2 of this letter (opinion = mouth + mind) (observations = eye + mind).

On page 3 I have told that the "grammar" of my semantography consists of a few rules taken from chemistry, physics, biology and psychology. They are so simple that children should have no difficulty to understand and operate them. Now here is the rule for the operations of all symbols pertaining to sense and mind evaluations.

From the point of biology we must accept the fact, that not two human beings are alike. This applies even to the comparatively rare case of identical twins, where environment causes a differentiation, however so slight.

In combining these two notions we arrive at the rule of semantography: Every human being is a unique observer and different from any other human being. The mind, senses, etc. of every human being is a unique system of reference. Different from the system of reference of any other human being. Consequently every sense and mind reaction (evaluation) of every human being will be different, however, so slight, from the sense and mind evaluation of ^{another} human being. All words which are symbols for such evaluations are relative in meaning and they have some sort of validity only with regard to the system of reference, the mind who uses these words. Moreover this validity is confined to the space and time position when the words are uttered. To-morrow, that special human being may think differently.

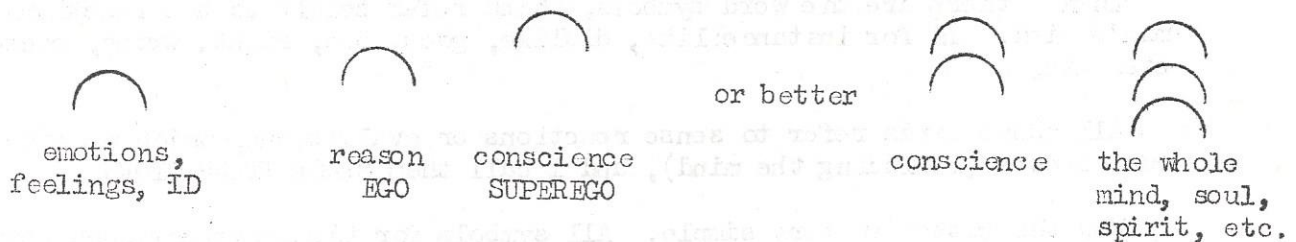
If one man has the sensation which he calls red, there is no possibility at present to find out whether another man has the same sensation; he might see a different shade, he might be colour blind, he might suffer from Daltonism. The symbol (word) red is relative in meaning, will be different in meaning for different observers.

But so are all the other words pertaining to sense and mind reactions. What one mind considers beautiful might be evaluated ugly by somebody else, and there is no possibility whatsoever to prove one evaluation absolutely right and the other absolutely wrong. The same applies to words like musical and cacophonous and even to good, bad, right and wrong.

However, modern physics has the notion of "invariant" formulae, and in some analogy, we may use this notion. If we reduce the sensation which we call red to wave lengths of the spectrum, we could come to an agreement but we must be aware, that we have only narrowed down possible disagreement, and we still are dependent on the inaccuracies of the instruments and their observations. In any case, 6500 Angstrom is a symbol substitute for the symbol red, and a much better one, verifiable by different observers.

Such an application is not so simple when applied to mind evaluations, such as good, bad, right, wrong. In any case, we must look to modern psychology for some simple rule for symbolization. Now we can take Freud's "partitions" of the human mind (interrelated and with no clear boundaries). We distinguish the Id, the Ego and the Superego, and if somebody does not agree with Freud, he may use the "popular distinctions" (as Freud called them) of (1) emotion (2) reason and (3) conscience. The practicability of these partitions is proved by the fact, that surgeons operate successfully on the notion of the superego, and have restored human beings, tormented by an overbearing conscience, to health and sanity.

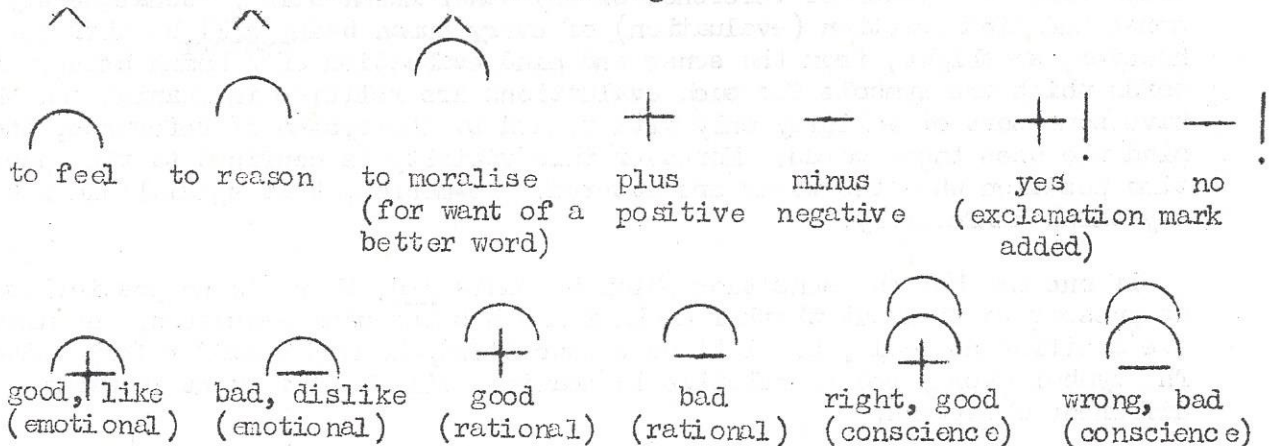
If we use the metaphors of "depth of our soul", "bottom of our heart", and the "high" meaning of conscience, we can accommodate these three different levels of the mind in 3 different geometrical positions on our writing lines:



The symbol for conscience shows the symbol for reason, superimposed by another mind symbol. I consider this as a very vivid picture, and even an explanation, why some people commit crimes with a "clear conscience". The superimposed mind may be the mind of the political Fuehrers, but it may be (and usually is) the mind of the teacher, minister, poet, etc. With Freud it is the mind of the Father (and Mother); with Jung it is the mind of God (or we may prefer the words mind-force, purposive force in the universe, life principle, etc.).

Should experimental psychology discover other partitions, other relations etc. we shall have no difficulty to find a symbol for these new notions, as sure, as we find a word for them. And we shall discard these symbols later on for better ones.

If we put the action indicator on top of our symbol for the upper cranium, seat of the brain, we get the meaning for the ACTIONS of our mind. Moreover, if we use the current international ideograms of plus and minus we can draw simple symbols for every relative meaning.



Making these meanings relative and restricted to each mind as system of reference, may cause an uproar in church circles. On the other hand, it may help to show that the great factions and dissensions in the various religions on earth (each claiming that God is on their side) is only a mind confusion. When this is recognized, then we may get together in the true scientific spirit, and find invariant formulae for good and bad, right and wrong. We may then agree that the killing of 1 Human is wrong, and the saving of 1 Human is right. I have written a lengthy chapter, titled "The Units of Ethics", and even if some people may call all this naive, oversimple, childish, etc. I for one, know that the symbols for these words show the relativity of the meanings, and what appear naive for one mind, may appear interesting or good for another mind.

I feel apprehensive after reading the foregoing paragraphs again. I have given you in a few lines a few hints, and they may have a very adverse effect. I hasten therefore to ask you to reserve judgment, until you have seen the whole manuscript. You will find there some chapters on the abstractions made by a mind. From the meaning of child we abstract childish. From the meaning of pig we abstract piggish; then we add this word to other words: a childish adult, a piggish woman, etc. Needless to say that these meanings too are mind evaluations, vague, relative, ambiguous and even meaningless in many cases.

Then there is a lengthy chapter in my manuscript "Logic for the People". Whatever may be said for or against the formal logicians, one thing seems to be certain, that the logic taught in school and in the university is beyond the reach of the simple people. However, they are not aware that they use the syllogism many times every day; in fact, the syllogism is an indispensable mental calculation. But in formal logic, if we assume the premises to be true the logical conclusion will be true too, although often factually false.

Now my semantography leads directly to a Logic, applicable by all and any citizen. And I want to stress the fact, that it is not necessary to know how each word is written in symbols to operate semantography. Only the outline, the basic rules of semantography are sufficient to reap the benefits. If we take for instance the syllogism

1st premise	In my uncle's opinion, Greek are bad people
2nd premise	Mr. X is a Greek

Logical conclusion: Mr. X is bad.

It is not necessary to know how every word is written in semantography. The word opinion will carry the mind symbol, because it refers to the acting of a mind, in this case the uncle's mind and no other mind. But even if we disregard the word opinion, we have the word bad, which is a mind evaluation, relative, vague, ambiguous. Moreover, there is the "is", the copula. It receives the necessary attention in my manuscript.

Another chapter bears the title "The Ravages of Language - Germany, a Nation Ruined". In this chapter, I have translated in my symbols all important Nazi slogans and many of Hitlers syllogism, which did deceive not only him, but also most Germans.

It has been said, that the modern newspapers are products for people who have learned to read, but not yet learned to think. Now, here is a simple semantics, easily applicable to all and any language. And I have translated many sayings of political leaders and newspapers. I have not spared men of the West or the East. I have translated relevant passages from the United States Constitution as well as from the Soviet Constitution. I have written in my symbols statements made in the British House of Commons, in the UNO assembly and elsewhere, and I have shown, how simple men and women can find out quickly and easily, whether there is some "substance" in the statements, or whether it is just another "windy talk".

I have not shrunk back from the task to attack the meaning of Democracy and of Socialism. It is a complex meaning, and it cannot be said with a few words, or in a few symbols; there are too many issues involved. However, in applying the method of the chemist, it is possible to resolve this complex structure in various groups, interrelated and interconnected, just as the groups NH_2 , NO_2 , CH_3 , COOH etc. etc. are interrelated in a structural formula for a

for a complex compound.

There is much exciting stuff in my manuscript, but I am painfully aware that what I have said, could be said a hundred times better by somebody else, who knows better, and I cannot think of someone, who could be better suited for such a job as editor or co-author, as you, dear professor.

You have initiated a series of most important books and have given them a very exciting title:

Primers for the Age of Plenty

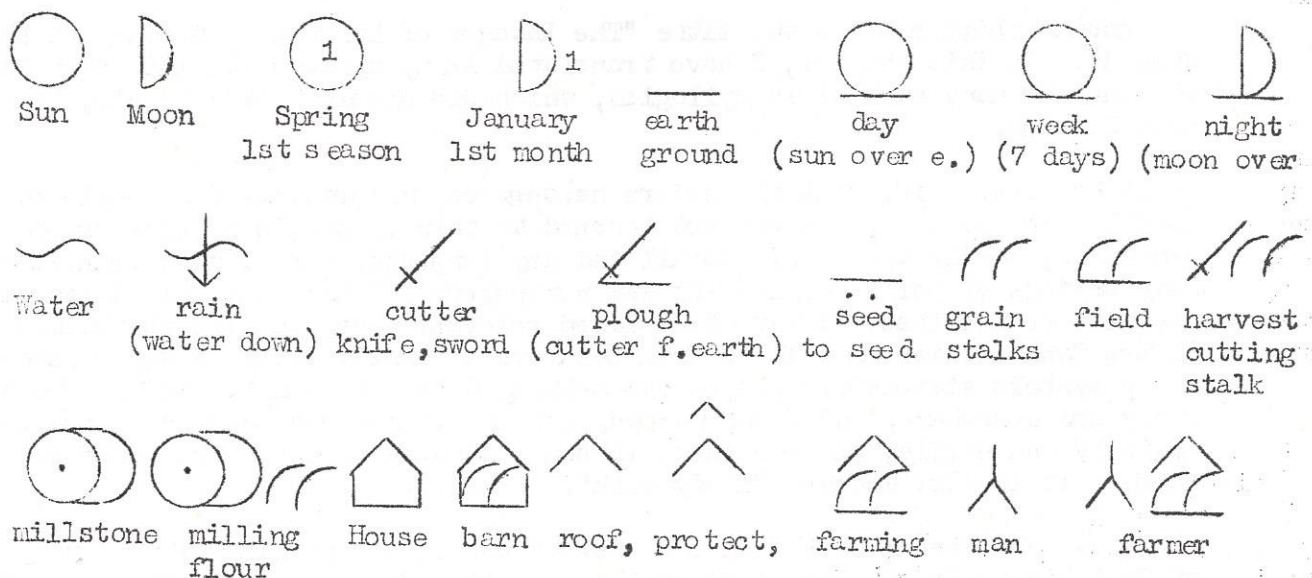
Now, primarily the inhabitants of this planet understand under "plenty" foremost and first "plenty of food", and one thing which has to be done, is to organise the world's food resources on a planetary scale. Agricultural research stations in all parts of the world, and all their work co-ordinated. But in what language should this co-ordination take place. English would be most suited, but then, there are millions of agriculturists who don't know a word of it. The only thing they know is their mother tongue. Then there are the peasants themselves. Their illiteracy has only one basis; there are no schools and there is no time to go to school. Moreover, they are hopelessly split up in thousands of dialects. Any make-shift alphabet made for one tribe, is not valid for the tribe beyond the mountain range. And 20 years later, pronunciation has shifted and the alphabet invented for one tribe is not more valid for it, and orthography must again be changed.

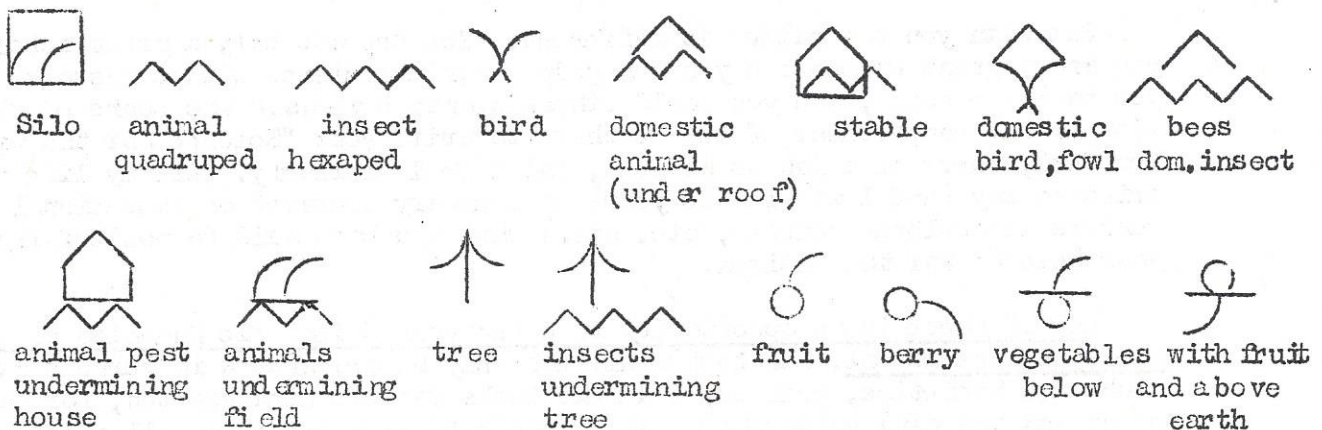
But a simple picture writing, easy to understand, easy to grasp, as it shows the outline of the real things - would be a workable possibility. And a writing must be, should the native learn improvements in the technique of farming and of living. M.M. Lewis, said in his book "Language in Society" much about primary education and he cites the report of the Advisory Committee of the Colonial Office on Mass Education in Africa (1943): "We have acted on the assumption that people would eventually adopt improved methods of agriculturewithout learning to read and write", and Lewis continues:

"But all the evidence, they (the Committee) continue, shows the futility of this assumption. Universal adult literacy is the first essential in the organisation of a community for the improvement of techniques of living"

To prove my assertion that my senantography is a simple picture writing for the whole of the world, and could be an excellent medium for the 75% or three quarters of the worlds population, who cannot read and write, I shall give herebelow a few examples of symbols to be used on seed packages, on instructions for the village elders, etc. etc. The travelling agricultural lecturer can only tell the farmer once, what they have to do, but three months later, his saying is forgotten, or partially remembered. His instructions must be in a written form and here below is the medium in which it can be written for natives in Asia or Africa for the native farmer in Europe or America.

Examples of symbols for agricultural instructions for natives





I can fill another ten pages with such symbols, and in my manuscript I have shown that necessary differentiation is very simple, either in an additional characteristic outline or a number. A farmer in a particular district deals only with a few crops and his animals and pests when numbered, do usually not exceed the number 10.

Many of the above symbols fall in the 100 symbol elements, although they are outlines. A knife, cutter can be resolved into the symbol elements: thing to divide matter, but the outline of a blade and a handle is much simpler and the cutter for earth looks exactly like a plough

I have special chapters showing the symbols for international postal service, customs, and international calendar, for railways, busses, ships and airplanes, for international signs in banks, and stores, for directions on merchandise, and on apparatuses, for symbol cables, for tools, for hotels, for passports, for emergency signals to aircrafts overhead, for industry and for commercial correspondence, for technology, and science, for medicine, and for psychology and I have even translated parts of the Bible, and the Lord's prayer and the Commandments, and I have shown, that prayer books could contain a page in semantography, expressing the laws of ethics, and impressing upon the citizen in any country, that we are one people, on paper at least. Just a few days ago I have concluded my chapter on poetry, and I have shown how and why poems in Chinese characters are so vivid, why they have withstood the thousands of years, and I have translated a poem of Wordsworth, and have given examples of poetry, which could be vividly understood in any language and in any country. My friends agree that my symbols are not only meaningful; they are graceful and even beautiful.

What I want to say in the foregoing 11 pages is the expression of my hope that you might be interested in my work, and you might fulfil a hope which I do not dare to think the end: to agree to a joint authorship, or even an editorship, or even a preface, for two new Primers for the Age of Plenty. You have written 2 wonderful primers.

Mathematics for the Million

Science for the Citizen

I fervently hope that you might be interested in two other primers which we may title

Literacy for the Billions

Semantics for the Citizen

I have done the rough work, I have built up the foundation, created the system; but now it has to be told in appropriate language. And the story must be told by a man who knows.

Take for instance my chapter on the Citizen and the Nation, How should these meanings be expressed in symbols? The way I choose, is the way of the chemist, who is confronted by a great multitude of mineral stones, each of a different shape, colour, etc. and now he sets to the task to find out the elements which are common in most or all of them. What is a Nation? Citizen who speak the same language, have the same religion, have the same colour of hair or eyes, or same other bodily features, or adhere to one political doctrine ?? What is a Nation really? And what makes a Citizen? I have told all this in a very stammering way, because I have never been a writer, and I cannot express my thoughts as I want to. And there are the chapters on Science, on Democracy

on Socialism, on Religion, etc. etc.

But with you the matter is different. You are not only a great scholar, you are a great writer and you can grip a world audience with a message. And you have a message, and you would otherwise not have used the hours of relaxation in the compartment of the Southern to write your "Science for the Citizen". You feel, there is a job to be done, and I feel similarly. All my life I have tried to say (and I was for 25 years an honorary lecturer on educational halls, workers educational courses, etc. etc.) what you have said so wonderfully in your Science for the Citizen.

And if there is an opportunity to bring your Scientific Humanism to a world audience here is one. The book would not only be translated in various languages. Clubs and Societies, primers, and text books for the kindergarten, for the boy scout and the girl guide who would communicate with others in all parts of the world, for stamp collectors (still the greatest users of Esperanto to-day), for commercial correspondence, for travellers, for rail, ship and air travel, etc. etc. apart from the books on semantics, logics etc. etc.

My intention is to approach the great typewriter manufacturers. If they have constructed a special typewriter with 265 Amharic symbols for such a small market as Abyssinia, they will be interested in a typewriter, which does not even need a special body, but can be manufactured by adaption of the usual typewriter. This typewriter can be immediately used for the writing of invoices, or instructions and the typing of international symbols in technology and especially radio and electronics. I cannot speak Chinese, but when my radio needed repair, I could make myself understood by writing a few Chinese characters and besides writing the ordinary international ideogram for a condenser, a variable induction, a pentode, and a rectifier valve, and the Chinese radio technician in Shanghai understood what I wanted to say.

Your wife might be interested in this medium for international statistics, for charts and tables which could be read and understood in any language. And here is something important. There is a man, who worked out this idea as a fore-runner, and you know him very well. His name is Otto Neurath, the man who invented the isotype and who drew the figures for your Interglossa. He is the author of "INTERNATIONAL PICTURE LANGUAGE" (Psyche Miniatures, Paul Kegan 1936). He used schematized outlines of real things in statistics and tables and this medium he designed to a special purpose; to make the citizens understand the world and the society in which they live. His beginnings in his "Gesellschafts and Wirtschafts Museum" in Vienna, have led to the general adoption of his idea and of his picture language. Almost all pictorial statistics etc. are to-day designed with Neurath's isotypes. And in his book, he pointed out, that his "language" is only a restricted one, and not so far advanced as for instance the Chinese "picture language". Now I have gone a step further.

In this connection I want to tell you about my background. It will make you understand much of my work and especially also the bad English in which this letter is written.

I watched Otto Neuraths beginning in Vienna, because I myself am a man of Vienna. But, whereas Neurath got away from Austria after his labour government was destroyed there, I stayed on, and on the 17th of March, 1938, when the Nazis marched into Austria, I was arrested and later on, together with other engineers of our factory, was sent to Dachau. I went through this hell, later to be transported to Buchenwald. Those were the golden pre-war days of the German concentration camps, where the daily death toll was only about 20 - 40, and mass extermination on a grand scale was not yet introduced. There was still a chance to get free. But how? For weeks and months I thought of how to communicate with those brutes the blackguards of the S.S. We both could speak German, but understanding was completely blocked. I had to find some language in which we could understand each other. And I hit on an international language, music. In veiled words, I advised my wife outside to get two of my music instruments to the camp in Buchenwald, and then I prepared for a way that they should not be confiscated. Once there, I could not only relieve the sorrows of my fellow prisoners (I was a good musician in my haydays), I could gain admiration and human understanding from some blackguards, whose mind was the well known mixture of German sentimentality and brutality. In due time I

was released (4 months before the outbreak of the war) and I went to England where I was immediately engaged as works manager in a Tungsten factory in Welwyn Garden City. Just as I had everything ready, permit etc. for my wife to join me, the war broke out. I got immediately engaged to organise a factory in London for the manufacture of the urgently needed torch batteries (for black-outs). The Alien's Tribunal judged me as Refugee from Nazi Oppression. I could retain my cameras, my radio, my bicycle and I could travel all over England. All this I can testify with documents.

However, my wife was still on the continent, and there was no possibility for her to come to England. Only one way was open: I to go via Atlantic, Canada, Pacific to Shanghai and she to go via Russia and Siberia. But Shanghai was in the hands of the Japanese, and this meant for me; back into the fangs of the Axis. On the other hand, it was the only way to save my wife; so I left the safety of the Allied camp and went to Shanghai. In 1943 we and all the other 16,000 refugees were segregated by the Japanese.

The experiences in Shanghai were extraordinary. I made first a living with my movie camera, photographing events of a personal and social character (weddings, sports, etc.). The Oriental world and its culture was for me a very exciting adventure. Moreover, I was confronted with a unique spectacle: 16,000 refugees speaking all kinds of European languages, and foreigners of every nation, and Chinese speaking different tongues were assembled in Shanghai. There I witnessed the irresistible force of the mother tongue, and there I witnessed a pictorial character writing at work. Only there could this idea have taken root. And the international co-operation in the International Settlement of Shanghai where (even in 1943) the employees of the Municipal Council consisting of Britons, Americans, Frenchmen, Germans, Italians, Chinese, Japanese, Danes, etc. etc. sat desk by desk and worked together, although a war raged already for years between their countries, this international co-operation convinced me, that it is still worthwhile to work on ways and means for such international co-operation.

This is my story, and my background. I hope that the terrible length of this letter will not forfeit my chances; that you might be interested in my manuscript, and I hope that you will ask for it. I have sent a few duplicated copies of the first and second volume (the third is not yet finished) to a friend in London, and he would gladly send you a copy.

The duplication of my manuscript was done for a special purpose. I have now passed the 52 year mark. I have experienced all worldly success as a chemist, as a businessman, and even as an artist and musician on the concert podium and as a science lecturer. I have led a happy life and I am still leading one. Two of my boyhood dreams came true. The first, to stand at the bow of a ship on a starry night and to see the Southern Cross rise slowly over the horizon. Now I see it every night, and I have placed my bedstead near the window, so that I can see it at any time of the night, the symbol of my boy dreams for adventure, for far away lands, for the vastness of the earth and the universe.

Your "boyish appearance" (Evening Standard, and your picture in INTERGLOSSA) is assurance for me that you will understand me, and surely you will understand my second boyhood dream: to do something which should belong to a sphere, larger than the circle of my own personal life. Now I have done it, and I believe that my semantography is a step, however, so small, in human language planning. I have bought a duplicating machine - and should I not find a publisher (which is unlikely) and should you not be interested in my work (which would be distressing for me) I shall go on duplicating my manuscript and sending the copies to the prominent libraries of the world, where they should be catalogued under Symbol, Ideogram, copied, pirated, improved ... and even if my name would be forgotten ... it is enough for me to know that I have fulfilled my destiny and have been an infinitesimal link in the evolutionary process of the universe.

You have created Interglossa, and I want to stress the fact, that my written language is only a stepping stone for a spoken one, and of all the proposals made, including Basic and Esperanto, none is better suited to fit my symbols as your Interglossa, because it is a language of the isolating analytical type, similarly to my writing. If you will show an interest in Semantography, it will still be in line with your work on Interglossa. When international symbols for practical purposes have gained their place in the world, words of

Greek origin, as proposed in your Interglossa can be adopted to suit the symbols and vice versa.

At present I work in a chemical factory. In order to be able to go on with my work on semantography, I have declined any responsible post and accepted a minor post on the afternoon and evening shift. This makes it possible for me to go up in the morning, work on my book, and write letters, and then at 2 p.m. to go to work, returning at 11.15 p.m. It is of course a hard work, and if the happiness of my life could be heightened, it would be when a publisher would agree to publish my work and I could sit down and earn the means of livelihood for me and my wife by continuing work on semantography during the whole day.

It is now Sunday afternoon 26th of June, 1949, I sit in the garden and write to you. It took me a week to write this long letter, and if I have any reason for an excuse, it is this: please accept this work on such a long letter as a kind of measurement for the high esteem in which I hold you and your work. I am very short in my letters to other people.

I beg you too, not to think that I am very eager to have my book published. I have said on the foregoing page, that I will be contented when my idea will be taken up 100 years hence. My personal life is immaterial. But - as long as I live, I will do anything I can to advance the cause of my work. I feel as you do: there is a job to be done in this world and men like you and me find relaxation only in working on this job.

At present I have not yet approached any publisher directly. I wrote letters to scientific journals in Great Britain, asking for the name of a literary agent to push an unusual manuscript. The Butterworth Co. which publish "Research" have then sent a cable to their Sydney representative, who interviewed me and a letter was sent to Butterworth in London. But I have not yet bound myself in any way. If you could interest George Allen & Unwin Ltd. if you would agree to write a preface, if you would accept to act as editor, or (too much to think) if you would agree to a joint authorship on two Primers for the Age of Plenty: Literacy for the Billion and Semantics for the Citizen - well, the Heaven would open up for me.

If I may make a proposal it is this: the vacation time is approaching. You could get the first two volumes of my manuscript (nicely typed by myself and duplicated and bound) by writing to my friend (address below) and you could have a look at my book during your vacation.

Mr. J.C. Lindsay
9 Hanover Terrace N.W.
London N.W.1

Although I have not yet got word that my friend got the parcels, they should be in his possession by now. I hope that the manuscript will interest you, or at least amuse you. Please don't be shocked by its bulkiness. As I said time and again: I need an editor.

May I conclude this very long letter to you, by paraphrasing two quotations from the very first and very last paragraph of your "Science for the Citizen":

"Since it is the first handbook to a modern ideographic writing, it has, inevitably, the glaring faults of any new thing."

And from the last paragraph of your book, I hope you will count me to the "Men and women who bring the live curiosity and painstaking industry of idealists to bear on problems of contemporary society." Surely, you dear Professor Hogben, are the symbol of a popular movement, and with you "the makers of the New Social Contract will be the founders of a new social culture."

Yours sincerely,

4 pages of the manuscript
including printed matter.

C.K. Bliss

Prof. Hogben lived up to the expectations of friendly co-operation I had of him. Not waiting for the long letter to arrive, he immediately answered to my introductory letter of 5th July:

From Professor Lancelot Hogben, F.R.S. 14th July, 1949

Dear Mr. Bliss,

Many thanks for your letter. I am sure that I should enjoy reading your manuscript if the publisher with whom you have lodged sends it to me, but you do not in fact say in your letter where the manuscript is.

With kind regards,

Sincerely yours,
(Sgd) Lancelot Hogben

I tried to enlist further help. In Sydney I have made the acquaintance of Dr. Henry Brose, once Professor of Physics of the University of Nottingham. He wrote a testimonial on Semantography (see Semantography Series No. 6). I asked him to write to Hogben and to urge him to help in the publication of my work. Hogben wrote to me and Brose on the same day.

From Professor Lancelot Hogben, F.R.S. 5th August, 1949

Dear Mr. Bliss,

I found your letter most interesting and look forward to meeting you when, as I hope, I have the opportunity of visiting Australia in some official capacity.

In the meantime, the paper situation is still very tough here and publishers, including my own, are, in my view mistakenly, loth to undertake anything bearing on the world language problem, especially in view of the lack of enthusiasm shown by UNESCO. On the other hand, you might be able to enlist the interest of a firm which is bringing out a popular book by myself on the general problem of human communications. I shall ask them to send you a copy to establish contacts.

With all goods wishes,
Ever yours,
(Sgd) Lancelot Hogben

From Professor Lancelot Hogben, F.R.S. 5th August, 1949

Dear Dr. Brose,

Very many thanks for your letter. The project in which Mr. Bliss is engaged strikes me as being very interesting and well worth bringing before the notice of the public. I wish him every success in this work.

With kind regards,

Yours sincerely,
(Sgd) Lancelot Hogben

These two letters went by surface mail. I did not know of their content until the end of September. But I strongly felt that Hogben will help me to the publication of my work, especially when he will have studied my books. As I sent him first Book I and II only (Book III wasn't finished yet), I hastened to send him Book III just finished by airmail (a heavy expense for me). I felt then that I ought to introduce him to the application of my symbols for ethics, as shown in Book III etc. and wanted especially to draw his attention to my writings on the cave paintings of paleolithic man. I sent therefore the following letter.

3rd September, 1949

Dear Prof. Hogben,

Your letter of July 14th, just arrived by ship mail. I am glad indeed that you will "enjoy reading" my manuscript. I hope that you are already in possession of my long (15 pages) letter, which I sent 2 weeks after my first letter. In this letter, I gave you a "short" outline and personal dates about my past.

Should this letter have got lost, kindly send me a note to this effect, so that I may immediately dispatch a copy. Kindly use an airletter (as this one)

in which case I shall have your answer within a week. About the manuscript see below.

I have not submitted my manuscript to any publisher in Great Britain, America or elsewhere. What I desire only is a publication within your series "Primers for the Age of Plenty", perhaps along your famous titles "LITERACY FOR THE BILLIONS" and another SEMANTICS FOR THE CITIZEN with you as co-author or editor, or if you decline at least with a Preface from you, or at least your approval and recommendation to your publisher "Print this, it is good."

During the 7 years in which I have worked relentlessly on this idea, which looked desperately like a crackpot idea, I have approached a few learned men. They however refused to look into the matter. Now a visiting professor for Education, Mr. Carleton Washburne of Brooklyn College New York, World President of the New Education Fellowship, etc. gave me a hearing and then he wrote this:

"A brief examination of the "100 Symbol Elements" idea of Mr. C.K. Bliss shows it to be ingenious. I believe it should be subjected to controlled experimentation whether or not it is practicable. If it proves practicable it could be of great value."

I shall send you a facsimile with my next letter, and I feel confident that you too will arrive at the same conclusion.

Now, yesterday I have completed the duplication of the last volume III. I shall send it to you as airmail parcel. There you will find a chapter THE UNITS OF ETHICS. As I have now evolved simple symbols for any meaning, symbols which somehow are "true to nature" outlining the real things of our world, I have been able to do the strangest things with them. For instance in the mentioned chapter, I wrote down the law of "action and reaction" by Isaac Newton. Then by transformation and substitution, in much the same way as I would handle a mathematical formula of physics, I soon arrived at the barbaric Bible law "An eye for an eye, tooth for tooth, etc." By further transformation I got the law of Moses "Thou shalt not kick" and by further substitution I got the law of Jesus "Whatsoever ye would"

And the whole formulae are so simple that children of highschool age should have no difficulty to discern the real things HUMANS in them, because they draw already in the kindergarten a human being thus:

Now they can learn in a simple "ethical mathematics" "Thou shalt not kick, because you will get the kick back, sooner or later", and "If thou doth not like to be kicked, don't kick in the first place."

And the "craziest" thing about this Mathematics of Ethics is that the formulae could be read in any language, similarly like $1 + 2 = 3$ looks exactly alike in any primer written in any language. The results could be overwhelming.

Well, there are other surprises in my manuscript, and I am sure you will "enjoy reading" it.

Now, in my long letter I told you that the manuscript is with my friend
Mr. J.C. Lindsay
9 Hanover Terrace Mews,
London, N.W.1

If you have not yet got it, you shall get it now, because I have dispatched an airletter to Mr. Lindsay telling him to send you volume I and II (not the synopsis, which he has too). The volume III I shall send as air parcel with the next plane.

You are a friend of very short letters. I hope you will excuse my long letters with the understanding that what was pent up for seven years is now overflowing in a torrent. I simply can't help it.

Yours sincerely,

C.K. Bliss

I followed up this letter with another one being stimulated by his writings on a Scientific Humanism in his book "Science for the Citizen". I wrote then,

Prof. Lancelot Hogben, F.R.S.
Department of Medical Statistics
Queen Elizabeth Hospital,
BIRMINGHAM.

16th September, 1949

Dear Prof. Hogben,

As told in my letter of September 3, I send you now the third and last volume of my manuscript. There I tried to grapple with the most controversial meanings. Necessarily the knowledge of the first two volumes is taken for granted in this third volume.

With regard to the meaning of "Democracy, Socialism," etc. I have to take a stand. I was a "socialist" since I started to think, and I am still one. However I always understood that socialism is the direct counterpart of dictatorship, secret police and slave labour camps.

With regard to my stand on Religion, I have been an agnostic since I opened my first book on chemistry and physics. I still do not visit places of worship, but the latest researches have shown me that the era of the mechanistic hypothesis has come to an end. Scientists in all spheres confess to a supreme order reigning in the circling of the stars and the electrons. Julian Huxley calls this "force" mental. The poet Wordsworth calls it the "active principle" and Du Bois-Raymond said: "ignoramus, ignoramus".

Stimulated by your book "Science for the Citizen" I became interested in the new "creed" which is slowly emerging "Scientific Humanism" and I know now, that I have been a preacher of it since I left the University. As honorary lecturer in workers educational halls, people's universities I have tried to tell the simple people that science has a message for humanity.

Now I have found a message in the drawings of paleolithic man. I beg you to take under close scrutiny my work (not mentioned in my previous letters, and written as an appendix to my book on semantography), "Excursion into the Dawn of Mankind and a fantastic Hypothesis" (page 617). Kindly excuse my naive handling of matters belonging to your special sphere: Biology. Call the whole thing a hunch, but one which could give mankind more practical and realizable hope, than all the messages of the evangelists. Let me call it the Message of Scientific Humanism.

P.S. I trust that you have already received volume I and II from Mr. C.J. Lindsay, 9 Hanover Terrace, Mews, London N.W.1.

Yours sincerely,

C.K. Bliss

And then it happened. The non-committal letters of 5th August arrived and dashed all my hopes. I answered immediately.

Professor Lancelot Hogben F.R.S.
Department of Medical Statistics
Queen Elizabeth Hospital,
BIRMINGHAM. 15

28th September, 1949

Dear Professor Hogben,

Your letter of August 5, arrived to-day, after 8 weeks ship travel.

All your letters breathe a natural sincerity and friendliness, and I am very grateful for your kindness.

However, my hopes are shattered. No "Primer for the Age of Plenty" for my work.

But I do not give up hope yet. You have not seen the manuscript when you wrote your letter. Probably my overlong letter with a few tits-bits (which I thought startling) might have produced a "startling" but opposite effect.

In the meantime, you must have received volume I and II from Mr. J.C. Lindsay, 9 Hanover Terrace Mews, London, N.W.1 and also volume III which I sent by air.

Kindly go through my manuscript and if you still think that it cannot be the subject of a Primer for the Age of Plenty (even at a later date when there is no paper shortage) I beg you to write me a few lines, just as Professor Carleton Washburne did.

I enclose a facsimile of his statement. Of course, the word "ingenious" makes me mighty proud. And if you could arrive at a similar opinion it would make me mighty happy. Your statement would help me greatly in securing the assistance of a publisher and other people.

With regard to "controlled experimentation", I beg to inform you that I have given a talk to teachers of the Australian School for Pacific Administration in Sydney. They have agreed that my system could overcome the hundreds of languages and their subsequent blocking of communication in New Guinea and the Pacific Islands.

I am now approaching the Department for External Territories and other important persons working in that field. And your opinion would help me greatly to overcome the natural hesitation of the civil servants.

Kindly use an airletter. Instead of 8 weeks, I would get your letter in 8 days. Many thanks for all your help and kindness.

Yours sincerely,

C.K. Bliss

My friend in London whom I have asked to help me with the books and to whom I have sent a number of copies was Mr. Charles Lindsay. I met him in London in 1939, he being a Friend (Quaker) and active in help for refugees. I was a refugee then. When I told him of my plight of being unable to get my wife away from Nazi Austria, he lent me £stg.115, which sum indeed helped me to pay for her fares from Europe to Shanghai, after I went there. I wish to inform the reader that not only did I repay the sum shortly after the war, I sent to Lindsay and his family about 100 food parcels, as this was the most needed thing in postwar Great Britain. I asked him in 1949 to help me a little with my work. He sent Book I and II to Hogben and received then the following letter from him which also contains the letter of Hogben to Lindsay:

22nd September, 1949

My dear Carl,

Immediately on receipt of your letter I sent a copy of Vols. I and II of your book to Professor Hogben, and have now received from him the following letter :-

19th September, 1949

"I am returning under separate cover the fascinating book of Mr. Bliss. I had already explained to Mr. Bliss that publication is very tight at the present moment owing to the paper shortage. The only publisher who I think might give sympathetic consideration to the book is Mr. W. Foges of Adprints Ltd., and you are certainly at liberty to mention my name, if, acting on behalf of Mr. Bliss you care to contact him.

For my own part, I doubt whether any publisher in present circumstances would issue the book in its present form, which is unnecessarily protracted, but as I think the views of Mr. Bliss are stimulating, ingenious and worthy of a wide public among inter-linguists, I venture to make the following suggestions which almost any publisher's reader, however deeply impressed, would subscribe to :

(1) The book would gain if the author added translations of a variety of well known slabs of prose to exhibit his system as a workable proposition.

(2) I think it would be wise to jettison a lot of the sales talk and quota-

tions employed as sales talk, because both the arguments and citations might be employed with equal propriety to boost any new proposal for improving international communications.

(3) Those who will not be easily convinced that an ideographic script could with advantage replace phonetic writing in its entirety may take the proposal more seriously if the author offers more practical suggestions for more extensive use of ideography in commerce and travel.

(4) Maybe I overlooked something, but I cannot anticipate the likelihood of an ideography equal to the task of transcribing the many thousand taxonomic terms of modern biology, including medicine, unless we construct a numerical code for plant and animal classification on all fours with the International Code of Medical Diagnosis (W.H.O.). Professor H. Waring at the University of Perth, Western Australia, has given some thought to this possibility and Mr. Bliss might care to take up the matter with him.

(5) Some reference might well be made to the Dictionary of Isotype which Otto Neurath has compiled as an international picture language.

With all good wishes,

Sincerely yours,

(Signed) LANCELOT HOGBEN

I have thanked Professor Hogben for his letter and advice, which I have told him I am sending on to you. Please let me know if you would like to contact Mr. Foges of Adprints Ltd., or if there is any other action that I could helpfully take. The numbered item (2) is one which I think you have to consider for the British public particularly, although perhaps not so much for the American and Australian market.

The three of us are very well, and we have had a wonderful summer here this year, so wonderful that we are now suffering from a severe drought. We have noted what you have said about acknowledging individual parcels, but quite seriously, at least restrict the flow as the food situation here has improved tremendously in spite of dollar shortages and what the newspapers may say.

Your letter about the good prospects in Australia for emigrants, and your warm concern for us have touched us very much. You will appreciate that it is not a decision lightly or easily arrived at, and Muriel and I have serious qualms about leaving Europe. However, I shall write you more fully about this as we think the thing through.

I am glad to see that your coal strike is over, and hope that things have got back to normal for you.

Very best wishes from the three of us to you two,

Charles,
Muriel and Angus

When I read what Hogben said, I knew finally that he will do nothing for me. I was not taken in any more by his words. Yet, there was still a slight hope in me, or perhaps I refused to believe that this man who has written so much about language planning could really do nothing for my work. I wrote to him in answer to his letter to Lindsay:

9th October, 1949

Prof. Lancelot Hogben, F.R.S.,
Department of Medical Statistics,
Queen Elizabeth Hospital,
BIRMINGHAM. 15,

Dear Prof. Hogben,

This is the last bother letter. I feel with contrition that I have over-

taxed your kindness and friendliness. But I must write this letter to tell you to post my third volume not back to Australia, but to my friend Mr. J. C. Lindsay, 9 Hanover Terrace Mews, London, N.W.1. Excuse all the trouble.

Then I must thank you for the detailed letter with editorial comment, which you wrote to my friend. I was overjoyed by your words "fascinating, stimulating, ingenious". If nothing more is going to happen in my lifetime with regard to my work, your words alone have made it worthwhile. Thanks a thousand times.

And now as the letter is already under way, I may be allowed to refer to your points, as you have shown interest in the matter.

As a "Primer for the Age of Plenty" is out of the question I have prepared for this emergency. I never thought that my protracted manuscript should go into print as I wrote it. I thought of a heavy cutting and editing by you or someone else. I realise that publishers must consider the risk, and therefore I shall approach Mr. W. Foges of Adprints Ltd. with a proposal to print a little booklet (size about like Readers Digest, but Penguin size is already too big) under the title "ONE WRITING FOR ONE WORLD". If this scores a modest success then another booklet may go into print "SEMANTOGRAPHY AND THE WAR OF WORDS", then another "SEMANTOGRAPHY FOR BUSINESS CORRESPONDENCE IN MULTI-LINGUAL COUNTRIES" and "SEMANTOGRAPHY FOR CORRESPONDENCE BETWEEN STAMP COLLECTORS, BOY SCOUTS ETC. OF DIFFERENT COUNTRIES" etc. etc.

I shall carefully take into account all your comment and shall act on it. I shall get in touch with Prof. H. Waring.

With regard to your reference of an ideographic writing replacing the phonetic writing, I always considered semantography to be an auxiliary tool, to be used only when necessary. I believe I have offered much practical suggestions in my extensive chapters on commerce, banking, travel, traffic, etc. in my volume II, which you had seen already. Otto Neurath's isotypes I have mentioned on p.160 and examples given.

Apart from the idea of having my work published, I have extended my endeavours in the "practical application" direction. Here is the result of one month endeavours:

(1) The High Commissioner for India in Australia has forwarded an extensive proposal of mine with regard to Rural Adult Education to the Government of India. I have also approached a great philanthrop and businessman, Mr. Dalmia of New Delhi, to get me over for practical demonstrations.

(2) Teachers of the Australian School for Pacific Administration in Sydney have already agreed that my system could be used with advantage in the Pacific islands, and New Guinea. I shall now approach the Minister for External Territories and a Sydney philanthrop.

(3) Three great American typewriter companies, Remington Rand, International Business Machine Corporation, and Underwood have written that they will examine my idea carefully. I.B.M.C. wrote that, if necessary, they will have me come to the States.

(4) Mr. Stuart Chase, American social reformer (THE TYRANNY OF WORDS) has put me in touch with the State Department Washington, Foreign Service Institute, Assistant Director Dr. Frank S. Hopkins, whose Institute does fundamental research in language.

I refrain from other items, because the letter is near its end. I shall now approach American scientific foundations. My only trouble is, that I work from morning to 2 p.m. on my typewriter, and then work in a chemical factory from 3 p.m. till 11 at night, to earn my living. What I want is to work from morning till night on semantography only.

Please keep volume III as long as you wish. What is your opinion on my "fantastic hypothesis" (p.617). Oh, another bother. Don't answer.

Yours sincerely,

C.K. Bliss

Then . New Xmas came and I decided to send some food to my scholarly friends (or so I called them) in Great Britain. I sent a food parcel to Hogben and he answered:

December 10th 1949

Dear Mr. Bliss,

Very many thanks for your charming gift and all good wishes. If you ever run into a former pupil of mine (Professor H. Waring at Perth) you will find him a good chap.

Ever yours

(Sgd) Lancelot Hogben

I wrote immediately to Prof. Waring of Perth University Western Australia. As he is a Professor of Zoology I introduced him to my symbols for zoology pointing out that Latin names have already proved insufficient to the many newly discovered species. (For instance accordingly to the Websters Dictionary a conservative estimate of the existing species of insects puts it to be about 10,000,000 species. Of these only 475,000 are known, many of them not named). Symbols in conjunction with mathematical symbols (numbers) are obviously the only way out.

But Professor Waring did not accord to me the meanest courtesy of an answer. Five years later I wrote again to him. And again no answer.

So ended one of my greatest hopes in Lancelot Hogben, professor, scientist, writer, language planner and general saviour of mankind with his Primers for the Age of Plenty.