



Semantography Series No. 223

A CRITIQUE OF BLISS' SYMBOLS

(Semantography)

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Introduction by C. K. Bliss

There is no person in the whole world who knows more of my symbols, who has studied them more thoroughly, and has fought for them more persistently than my good friend Dr. Douglas N. Everingham. He has lectured on them to learned men and societies. He has written articles on them. He has approached many a professor and institution, advocating that an interest be taken in my work and that it be taught and promoted. He has written many a letter to editors of newspapers and journals, in which he castigated official apathy and urged the adoption of my work for the needs of mankind. The editors have printed his articles and his letters and they are collected in this Series in various issues (see catalog). The urgency in Douglas writing can be guessed from the title of one of his letters which appeared in the Medical Journal of Australia. The title reads "A Message to Mortals" He urged the whole medical profession to take an interest in my work and apply it to the needs of medicine (Semantography Series No. 87) Not less urgent were other letters to universities and professors.

Often I thought and said that I shall die happy in the thought that there is at least one young scholar who knows of my work and who will go on with it when I am no more. My thanks and my gratitude to Douglas know no bounds. As a doctor he has given me the best medicine: interest, encouragement, and active cooperation. I needed this medicine to keep me going, because official apathy, the scourge of all new ideas, has made me despair many a times. But good old Douglas was always at hand to help me and my good wife Claire, who - alas, is not more with me. She passed away last year. In her last conscious hours I read to her Douglas' long letters in which he encouraged and comforted her in her illness. This too proved to me that I have a wonderful friend in Douglas.

Then a man like Douglas with an open and critical mind studies anything, it is natural that he will soon find faults and the need for improvement. He soon came up with suggestions for the improvement of my symbols. At first, I was unhappy about it, because I feared another Babel such as we have already in the many proposals for improved international languages. Later, however, I came to realize that this is the only way for improvement of my symbols. I therefore suggested to Douglas that he writes a treatise of all the critique and all the improvements he has in mind, and that this "Critique" be incorporated in the Semantography Series. And here it is. This Series is subscribed by a number of great libraries in the world. I have made provisions that after my death more copies of this Series and all my publications be distributed to all great libraries in the world, so that other researchers may join Douglas in his work for the promotion of this universal medium for mankind. In the collection of my manuscripts and other writings there is a large file containing all letters which Douglas has written to me over the years, and in which he has made many more suggestions for improvements. These letters will be made available in a great library, either in Australia or the United States. May Douglas be the man who will succeed where I have failed. May he see the introduction of such a symbol writing in the schools of the world.

Douglas is a successful doctor, and also a successful father and husband. He has little time for such work. Therefore I appreciate everything he has done for my work and will still do. My thanks and my gratitude go out to him, and I wish him a long and happy and successful life.

C. K. Bliss

A CRITIQUE OF BLISS SYMBOLS

with a note on 'Safo' and 'Ficto'

by Douglas Nixon Everingham, M. B., B.S. *

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I. THE TYPEWRITER

1. The indicators of tense (and) (p.95)** should appear on pp. 9, 23. On p. 23 they would serve to compose the FIRE symbol . The 2 halves of the wavy symbol for WATER  similarly. These 4 curves should be 1/4 circles with a chord length equal to the standard underlining character  (=1 letterspace).

2. P. 23 should also show 4 arrowheads, but these may be available as standard characters on European typewriters as in French <rôle> and Czech č. The dot could be omitted, as it is punctuation.

3. The upper and lower semicircles of the MOUTH symbol  could be included separately. The upper of these curves plus the short 45-degree oblique lines of the ROOF symbol  would suffice to form outlines for EAR  and HEART  and the suggested new symbols for EVALUATION  and HAVE  (II.A.5(h), II.B.3)

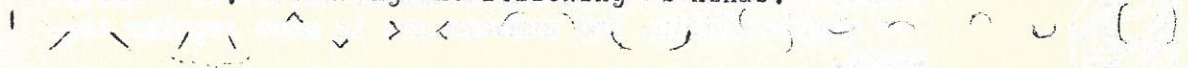
4. An alternative method for obtaining the spacing needed would be:

(a) The ratchet wheel on the platen could have teeth so spaced that 2 of their spaces would equal 1 linespace. A linespace here means the distance between 2 lines of type such that the character / will form a continuous line/ through several lines of type when 1 linespace and 1 letterspace difference / is allowed for successive imprints thus:

There could be a second ratchet wheel fitted with teeth midway between the positions of the teeth of the first wheel. The spring-loaded roller which fixes the ratchet wheel in each position could then be made movable to bear on either wheel alternately. Or, with one ratchet wheel only, the spring-loaded roller could be made to move lengthwise to 2 positions corresponding to a 1/2-tooth rotation of ratchet wheel.

(b) The spacer bar (wordspace control) could be adjusted to give a 1/2 letter space lateral movement when held depressed by hand or by a catch similar to a shift-lock. This position being held would also serve to prevent the usual automatic spacing with each character printed. This would be helpful when more than one character is to be typed at the same position.

5. All the above changes would imply that a fairer comparison of the typing "letters" of Semantography (=Bliss Symbols) with typing alphabetically would be the number of adjustments required in the 2 spacing controls plus the number of "line letters", including the following 21 kinds:



6. The oblique lines in symbols for NATURE  LEGS  NEED  HELP  &c. should be equal in angle and position to that of the characters / % but may be composed of lines 1/2 that length which would serve for MAN  WOMAN  &c. The arrowheads should be of lines at 45° to the line of writing and equal in length to the radius of the MOUTH symbol . The symbol for WHEEL  could then be typed using 2 opposing arrowheads plus the MOUTH symbol. The 2 opposing arrowheads alone would provide the PLURAL indicator . The arrowhead symbols might be produced by grinding down extra x characters fitted to the typewriter, the short oblique lines similarly from / and % , and some of the curves from () or @ characters.

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**page references are to "Semantography" (3 volumes) by Bliss. The system of Semantography has been re-named Bliss Symbols for simplicity. It is a pasingraphy (like Safo and Ficto referred to herein) but claims to be more than an international writing readable in all languages (as Chinese characters are) in that it is based on modern Semantics, sciences and a philosophy which can be accepted by theists and atheists, extended to embrace Bliss's theory of the origin of war in the human species as contrasted with his finding of the high intra-species and often inter-species ethics of lower animals.

7. A useful modification of the bracket characters (large) would be to lengthen them to one linespace (making their chord length equal to the vertical height of the / character) at the same time turning the ends more abruptly and realigning them so that when typed successively this () would become a near-ellipse allowing a more satisfactory MOON () symbol and other useful symbols thus :
EGG () (The essence of an egg is that it is a gamete plus food, i.e. inheritance material in the nucleus plus a large surrounding store of raw material, as contrasted with the male gamete or sperm which is small for motility and penetration. Hence the dot in the centre is important, representing the egg as a live cell with a core (nucleus).

CELL DIVISION () (A diagrammatic picture of the first cell-multiplication of the fertilized egg, an oval plus a division + sign)

POTATO () (An ovoid characterized by buds on the surface, "eyes").

OVAL () OVOID () (cf. () SPHERE) FOOTBALL(RUGBY TYPE) ()

8. The following extra symbols would be useful on a triple-shift typewriter :

× () > < / \ ^ o s 2 : { | _ - || + □

9. The U.S. Navy claims the Dvorak keyboard (layout as follows) is 35% faster than the standard keyboard layout (Business Week, 16 October, 1943).

7 5 3 1 9 0 2 4 6 8

? , . P Y F G C R L

A O E U I D H T N S

; Q J K X B M W V Z

Theoretically, one would expect the following layout to be even faster for English which has letters most frequently used in this order - e t a i n o s. (The standard layout is said to derive from the layout of loose types

used for handset printing, as pioneer "writing machine" inventors conceived of only 1- or 2-finger typing).

9 7 5 3 1 0 2 4 6 8

? / Z X Y W U P D G

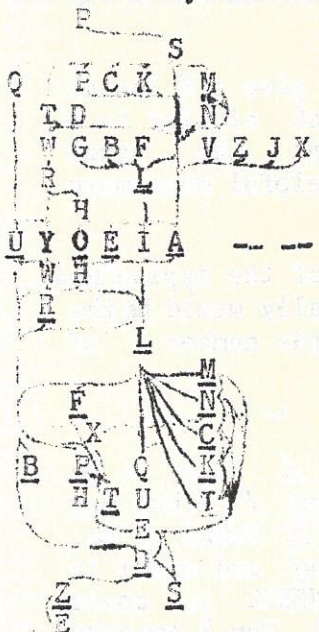
L R N S T A E I O H

; Q J V K M C B F :

spacebar .

This would require the right thumb to print commas and full stops on both shifts by pressing short bars; both in line with a spacer bar reserved for the left side of the machine and worked normally by the left thumb. It is well known that it is easier and quicker to type with left and right hands alternately. This is recognized in

the last layout. Here is a scheme of letter sequences in English syllables:



Doubling is possible where a letter is underlined. In general letters may follow each other as indicated by following horizontal and downward lines. Examples of complexly spelt syllables taken from this scheme are: PSALMS, ADZE, SPRAWLED, LIMNED, -OURED (of COLOURED)

any 2 of the letters of this line may be apposed.

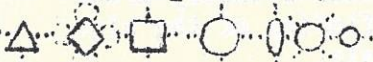
My keyboard suggestion takes into account the preference of right hand to left, and of fingers in order from the thumb, by most writers. The mnemonic layout is easier -- vowels adjoin, and numbers are in more regular sequence.

As far as I am aware, this tabulation of the order of letters in syllables is original. It should be useful to shorthand designers, and was first worked out by me while I was studying that most successful (by NSW State Examinations) of all shorthands, "Summerhayes SHORTEHand" (Metropolitan Business College, Sydney).

10. Theoretically, a 24-character keyboard can be designed to construct all Bliss symbols, including numerals, punctuation and letters of the Latin Greek and Russian alphabets. It might require less learning for 10-finger typing than standard keyboards. The extra complexity of ½-spacing vertically, and horizontally, and no automatic spacing on pressing keys, could be partly compensated for by having the type arms so arranged that several characters could be typed at once, e.g. corresponding fingers of both hands with a keyboard arranged thus:



11. Rubber stamps could be constructed along these lines for cheap handset printing, and stencils could be constructed with the elements combined much as illustrated here:



The small dotted circles at the corners of the oblique square would be 5 units in diameter, equal to

and a few generations ago gave the world its most widely accepted system of weights and measures using all the advantages of the Hindu notation. Yet Frenchmen still say "soixante quinze" ($6 \times 10 + 5 + 10 = 75$) and "quatre vingts cinq" ($4 \times 20 + 5 = 85$).

The disadvantages of a decimal system lie in the following fields:

(a) for counting goods packed in cuboid containers. If the goods are of regular size and shape, they will be counted in 2's or 3's usually in 3 dimensions. Most invoices in English-speaking countries accordingly list merchandise by dozens, gross (12×12) and great gross (12 gross). This must have occurred in France too as I believe our terms "dozen" and "gross" are of French origin. Housewives in local fruiteries and groceries still prefer the mouthful " $\frac{1}{2}$ dozen" when ordering rather than "six". Our own language, like many others, has distinct terms for 11 and 12 before falling back on the digital "teens" terms.

(b) in circular measure, the most important structural or geometric angles are $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{3}, \frac{1}{6}$ and $\frac{1}{12}$ of a circle, with $\frac{1}{5}$ and $\frac{1}{10}$ scarcely as important as $\frac{1}{18}$ & $\frac{1}{24}$. Hence the centigrade scale of circular measure (400° to a circle) has not become as popular as the sexagesimal (360° subdivided into 60 minutes which in turn subdivide into 60 seconds). Compass bearings are named as $\frac{1}{4}, \frac{1}{8}, \frac{1}{16}$ & $\frac{1}{32}$ of a circle (as in NE by N).

(c) in measuring time, the sun provides 4 astronomical turning points: noon, midnight, sunrise, sunset each day; and 2 equinoxes and 2 solstices each year with the corresponding 4 seasons, each roughly equal to 3 lunar cycles with the four moon phases roughly separating the weeks. Thus the ancients divided the year into 12 lunar ("Moon-thly") cycles and marked the sun's travel in these 12 segments by the signs of the zodiac, which may have prompted the division of the day into 12 segments from sunrise to sunset. Even the universal/French "decimal" system retains clocks with 12, 60 and 60×60 subdivisions, according to the length and narrowness of the two or three hands of the clock in each case.

(d) it must be partly for such reasons, and the comparative ease of subdividing quantities into 2, 3, 4, 8 etc. equal parts, that most non-decimal and measures still in use show multiples of these factors repeatedly, rather than factors of 5 or 10. Fahrenheit's temperature scale (with $3 \times 12 \times 5$ degrees between freezing and boiling points of water) is still in wide use by those who have to measure temperatures in watery media (dairymen, boilermen, nursemaids etc.) It is still common in this country in medical circles to order "a sixth" (of a grain) "of morphia" — or a quarter, twelfth, third, eighth, 24th, 36th. I have never heard of anyone ordering a fifth, 10th or 20th of a grain, and there are few nurses who could work out how to do it without gross wastage (say by expelling from a decimally graduated syringe 4-fifths of a grain). Standard tablet and ampoule packs of many drugs are in sixths, quarters and eighths, and in 6's and 24's. Engineers still prefer Anglo-American units in counting threads to the inch, because they depend on counting teeth in gears of their lathes, and these are made using sexagesimal measure.

(e) in a set of weights used on a weighing machine you need at least 9 weights, avoiding fractions, e.g. 100, 50, 20, 20, 10, 5, 2, 2, 1, totalling in weight 210 units, to weigh accurately to 1 in 200. With a duodecimal ("twelvist") system you need only 9 weights avoiding fractions, e.g. 144, 72, 36, 18, 9, 4, 3, 2, 1 totalling in weight just 2 gross units to weigh accurately to 1 in 2 gross, and moreover with these any quantity from 1 to 12 units needs not more than 2 of the weights to assess it (in 5 cases 1 only), whereas in the decimal system 3 weights are needed in 2 cases, and 1 only in only 3 cases, for measuring quantities up to 10.

From all these viewpoints a better number notation would seem to be one with twelve instead of ten digit symbols, with the "tens" place of digits becoming the "dozens", the "hundreds" place recording "gross", the "thousands" changing to "great gross", the "tenths" position showing "twelfths" etc. How much easier it would be for children to memorize tables! We all remember the ease of 5, 10 & 11 times multiplications. With a twelvist set of numerals (with single symbols for eleven and twelve, and multiplying by twelve instead of ten when we add zero after a number) we would make 3x, 4x, 6x, 8x, 9x, 12x and 13x nearly as easy as the present 5x, 10x and 11x (some easier), and would have far less call for 5x & 10x which would be no harder than the present 7x and 9x. Percentages would be replaced by pergrossages and would be "1,000 %" easier to convert to simple fractions. The present 25% would end in a zero, and there would be no fractional figures for the present unwieldy $16\frac{2}{3}$, 12%, $8\frac{1}{3}$ and 6% which pupils now must memorize. This gain would more than compensate for the increased difficulty of the less commonly used 20%, 10% (which would be even less needed in a twelvist community).

For the present, however, Bliss symbols rightly accept decimal notation. It is established, hence at present more convenient, and likely to persist alongside a later, more systematic twelvist system of numerals on footrules and meter sticks, shop scales, cash registers and calculating machines, just as we have metric and Imperial (or U.S.) weights and measures side by side now on many scales. Just as children in many countries now learn French and Latin, and may later change to learning English and Esperanto, so they may one day learn decimal and twelvist figuring, choosing either as convenience or the occasion demands.

REPEAT the article named (an unspecified number of repetitions). There is already a recognized way of doing this, as when we represent the plural of an abbreviation by doubling the last letter thus: pp. 1-3 (pages 1 to 3), advv. (adverbs). A similar device is frequently used in Bliss symbols but then adds supplementary meaning, e.g. $\square$ PAGE; $\square\square$ (a plurality of pages) BOOK. Simple plurality can be shown by the international sign for a REPETITION, commonly called "ditto marks", and written " or .. or .. . To avoid ambiguity, I would suggest these be used as a subscript to the symbol in question (the normal position for ditto marks) thus:

— $\frac{+}{\cdot}$ — ~ ↑ Δ ! o! This facilitates expression of a plurality of actions in the same way as a plurality

SEEDS BORES UNIVERSES SOLUTIONS ASCENTS HOFS EXPLANATIONS

ity of concrete "things". As the first two examples show, it does not introduce any new principle of low symbols. The French language shows us that diacritic marks are extant above and below "regular" symbols thus: Mocambique, elite etc. This allows us to use the THING or ACTION indicators above the symbol without committing ourselves as to plurality or otherwise. I would therefore recommend dispensing completely with the existing plural indicator (which is also a THING indicator perforce. The plural of an action is useful in transcribing USUALLY, USED TO, WILL BE WONT TO etc. as:

Δ_1 $\Delta_1!$
I USED 'TO HOF

(d) The mathematical $>$ and $<$ (EXCEED and BE EXCEEDED BY = FALL SHORT OF) can be used strictly in those senses and the shorthand forms $>$ $<$ reserved for service as pointers/arrowheads, or to mean MORE and LESS respectively in place of $\times$ and $\div$. The last is somewhat confusing in that the opposite of multiplication should be division ($\div$) rather than LESS. The use of double multiplication signs, moreover, tends to imply repeated multiplication, when what is intended by MORE is simply any mere addition, and by LESS we plainly mean subtraction, not "opposite of repeated multiplication". Here, then, are my suggestions:

$\times$ $\times^+$ $\times^+$ $\times$ $<$ $<<$
MUCH, MANY MORE MOST LITTLE, FEW LESS LEAST (I am sure these can be improved.)

(e) An algebraic use of the EXCESS symbols is in $a \geq b$ ("A is greater than, equal to or less than B") with its variants $a \approx b$, $a \leq b$ and of course $a = b$. There may be occasions when this could be used in Bliss symbols, but there are a few other signs of inequality which are more clearly useful. Bliss already uses $\neq$ ("unequals") and there is $\approx$ NEARLY EQUALS, probably best shown as Bliss does it by $\approx$) and $\equiv$ IDENTICALLY EQUALS, equals in "all" respects as applied for example to two triangles of the same size and shape. This could give us a symbol for SAME as contrasted with SIMILAR, but we have to beware (as Bliss points out) of the trap of "all" in this sense, or (as Korzybski points out) the impossibility of (total) "identity". Finally there is the RELATIONAL EQUALITY sign $::$ as in $1:2::2:4$ (for $1/2=2/4$). This could be used in the large form $:::$ to refer to "EQUAL RELATIONSHIP" and with the MIND symbol for "ANALOGY; EQUATING RELATIONSHIPS; EXTRAPOLATING". Compare Bliss's COMPARE $\odot$. Similarly we can use $\odot$ for IDENTIFYING, $\odot$ for EQUATING, $\odot$ for CLASSIFYING TOGETHER, ASSOCIATING, LIKENING, $\odot$ for MAGNIFYING, AGGRANDIZING, $\odot$ for MINIMIZING, SCORNING, or DENIGRATING.

$\odot <$ or $\odot <$

4. Punctuation

(a) The adoption of the colon as a mathematical symbol suggests its use in punctuation be discontinued in Bliss symbols as liable to confuse. This may be a blow to Bliss in that he frequently uses the colon as equivalent to "viz." or "thus", but in practice I think that most of these cases lend themselves to retaining the colon in the sense of "relationship" without ambiguity, for example:

$\times$ γ : $\subset$
STRUCTURAL DETAIL EDGE TA BLE: QUARTER-ROUNDED FROM TOP SURFACE

In the usual punctuation situation the colon can be replaced by a semicolon or, when preceding a quotation etc., replaced or supplemented by quotation marks " or 3 dots thus...

(b) The relative pronoun in Bliss is a modified ditto mark, and indeed its function is the same -- to save tedious repetition of the antecedent noun or noun-equivalent. Other punctuation marks which may be used in modified ways are

(c) The full stop (raised above the line to indicate POINT, DOT, SPOT or PLACE, which is actually its significance in temporo-spatial prepositions). This would save a new symbol for PLACE, and even at times serve for REGION, AREA, LOCALITY, QUARTER, PART (perhaps in conjunction with symbol for PORTION $+$)

(d) The oblique line / used when "struck through" another symbol as a sign for DESTRUCTION (as in mathematics symbol $\neq$) and with numerals for PART thus $2/4$ "two fourth-parts" 2% "two parts, each a 100th". This could replace the sign $+$ (see last paragraph) perhaps with the added sense of FACTOR, QUALITY, CHARACTER.

The symbol for destruction as such would be Δ or ∇ .

(e) A raised comma has been suggested above under 3.(a) for OF in place of the small arrowhead. Small arrowheads could then be used to mean MORE $>$, LESS $<$, or (see 5.(c) below) as indicators of ACTION in lieu of the superscript $\wedge$ Action indicator. They are used as punctuation marks in most European printing (quotation marks) and the vertical arrowheads as diacritics (French rôle, Czech ř etc.)

(f) A raised semicolon may be used for FOR but in most cases this word can be replaced by OF or the phrases FOR THE PURPOSE OF or IN EXCHANGE FOR. In these cases I would suggest $\odot$ (mental cause) PURPOSE, using* the smaller half-circle $\circ$ as suggested below as the indicator of evaluation; or $\equiv$ (shorthand form of $\equiv$ "GOAL, AIM, PURPOSE") and ∇ (shorthand form of EXCHANGE, using small semicircle, as suggested below for HAVE). *for FOR $\odot$

A large semi-colon thus $;$ may be used as regular punctuation, but its components are used in chemistry to indicate a preponderant proton or electron respectively, as in H^+F^- (hydrofluoric acid). Their juxtaposition might therefore be used to signify atoms of MATTER thus $;;$ (Note that this can also be read as the plural of $..$ using the plural sign suggested under 3.(c), hence it will be inadvisable to use $..$ as a symbol which can have a plural unless it is used for MOLECULE). This would allow the necessary distinction between SUBSTANCE, MATTER on the one hand, and OBJECT, CONCRETE THING on the other (see 5.(i) below for a suggestion re the latter). The single small semicolon might also be used to signify ATOM or ELECTRICITY (positive over negative particle) as a technical shorthand for the existing Bliss symbols $\odot$ and $\ominus$. Compare $..$: DUST

(g) Although ETC. is almost universal, it is replaced in mathematics by 3 dots thus: a, 2a, 3a, ..., 24a ("a series from a to 24a with numerators increasing by 1 each time"). The three dots can thus be used in a Mind Mathematics for Man to mean CONTINUE, PROGRESS, and may thus replace the arrow, especially if raised up from the line of writing to indicate that it is no mere punctuation. It might also be used to mean SERIES when suitably qualified. ...

The arrow is used as a chemical symbol ("changes into") and as a mathematical one for "approach to the practical point of contact or correspondence" as in $y \rightarrow 0$, $z \rightarrow \infty$. It seems to me that the notion of PROGRESS would best be shown by the dots unless physical movement is referred to, and the arrowhead for "movement" would obviate the need to create the relatively poor $\rightarrow$ symbol now used by Bliss. The semantic value of the arrowhead ("progress in what direction?") can be no more trenchant than the idea of one identical dot after another (going on from point to point to point — but with what POINT at the end?) plus the arrowhead which intrudes as soon as you ask the question TO WHAT?. Also, we can derive the symbol $...$ (doublespaced dots, Cf. MOLECULE $..$) to mean

DIRECTION which has no real symbol of its own in Bliss symbols, except $\downarrow$ ORDINATE.

5. Other ideographs.

(a) The staff of Hermes is widely confused in significance with that of Esklepios. Many reputable drug makers and medical publishers use the two snakes ∇ in their trade marks. There is already in wide use a schematic abbreviation of the staff of Hermes: ∇ which in biology means HERMAPHRODITE (the symbol of Aphrodite being ϕ). Leaving out the 'handle' of the latter symbol we are left with the intertwined snakes ∇ . This is a compound of the Bliss symbol for MOUTH, (which may recall such parallels with food and speech as "money talks", "earning a bite") and a symbol proposed below (B.3., last paragraph) to mean HAVING. There is a clear resemblance to the symbol for COIN $\circ$ and to the popular symbol of money as a rounded bag tied at the neck, or a partly-unfolded roll of banknotes. This abbreviation therefore seems to have many advantages over the fuller symbol ∇ used by Bliss. On the semantic side the same may be said: the significance of money is that it is a guarantee of the right to certain assets, the property of the authority issuing the money. It does not violate this sense too much, I suggest, to explain the short symbol in terms of its 2 components as indicating 'that which bespeaks holdings'.

(b) The staff of Aesculapius (Latin equivalent of Greek Esklepios) is so little known outside medically-informed people that the now universal symbol of the Red Cross seems to warrant considering. It could most readily be shown in the form called 'Maltese' as a plus sign with 4 arrowheads $\oplus$. The snake-S-staff sign is admittedly better from other viewpoints. It should be shown with the upper curve anti-clockwise from above down (i.e. concave to the right) and this should be standardized (as for the FIRE symbol). The reasons:

(i) anti-clockwise curves are easier and in fact instinctive in children (if right-handed) and the easier curve should take precedence when first putting pen to paper in a compound curve, for speed, ease and legibility. :CHILD'S

(ii) this convention is familiar in S, Z, J, F, %, @ etc. :SCRIBBLE

(c) compared to a primitive upheaval by Bliss, might be better reserved for indicating an UPWARD action, relation, trend or (in the 'psychodynamic' schema proposed below) attitude, complex 'upward'. We already have the sign $>$ to in-

1. STARTLED, SHOT (A BULLET INFO) THE ANIMAL DEAD

MY MIND EXPERIENCING MY HAND (FINGER HAMMER, PERCUSSION ANIMAL
ASTONISHED FEELING TOUCHES CONTROL) CAP, explosive, MISSILE DEAD
" Startled , I shot the animal dead "

(g) / for DESTRUCTION. Destruction in the sense of annihilation of matter or energy does not occur. There is only re-struction, dis-integration, division or re-ordering. Similarly, creating "order" out of "chaos" (p. 20, p.278) is just eValuated rearrangement (or, as the late Johann Philip van Leent, M.D. (Leyden), put it in discussing Bliss, it is the "categorical imperative"—verbal comment.)

A chemical retort is used for simple 'fractionating' or dividing and re-grouping substances. We can incorporate in it logically, then, the symbol for dividing into fractions / as in the fraction $\frac{1}{2}$. The compound symbol δ could thus mean 'dividing by bottle', a fair definition of chemical analysis (analysis = unloosing) which is the essential first step in all chemical procedures. The bottle δ further calls to mind the biochemical term in vitro ('in glass') used for processes in the laboratory mimicking those in the living organism (in vivo). The bottle symbol-component itself may represent the reverse tendency of chemistry (as opposed to analysis or division) namely, conservation or synthesis (putting together).

(h) $\vee$ for eValuation is not necessary in that the same purpose could be served by a 'shorthand' form of the MIND symbol (the small semicircle forming the upper half of the mouth o symbol):

(i) $\perp$ for individual gives us a means of distinguishing the terms SOLID, MATERIAL, OBJECT. An object is an 'individualized' part of material(s), so the shorthand form $\perp$ should indicate it adequately (the upper part $\perp$ of the $\perp$ INDIVIDUAL symbol being more characteristic of the human individual as in λ and Δ). This simpler $\perp$ symbol will serve at least as well as the $\square$ which can then be reserved for its sense of SOLID. The shorthand term for CHEMICAL δ (omitting the bowl of the bottle) can then provide for us Δ (an individual substance), less involved in derivation than δ for the non-technical reader, who can associate it directly with the numeral 1 in his mind.

(j) $\circ$ for TIME (past), present $\circ$, future $\circ$ is redundant. There are already symbols logically derived for BEFORE $\cdot$, AFTER $\cdot$. All that is needed is to add the notion of TIME which is shown by the clock-face $\odot$. Even the latter is not strictly needed (measuring time could be alternatively shown by $\pm$)... $\circ$ for Einstein has shown that time is mathematically adequately described as LENGTH multiplied by the square root of minus one, which is $\sqrt{-1} \times \text{length}$.

A short way of expressing square root is 'raised to the minus two power', so that $2=4^{-2}$ and root minus one is -1^{-2} . If we now look on time as a fourth dimension at right angles to the three dimensions of space we know (these three shown in Bliss symbols as $\angle$), we might conceivably show it as a dotted line.... running obliquely 'behind' the oblique projection of the line 'vertical' to our page in the symbol $\angle$. Each dot on this line might have a division $\div$ line across it, just as we mark off length on the symbol for LONG --- or that for MEASURE --- . Thus we would picture time as --- and if these divisions were numbered from the zero point (where the $\angle$ lines meet) we would have something like $-1-2-3-4$ etc. It is not hard, then, to see that it could be taught quite simply to young people, without affronting logic, that -1^{-2} is the symbol for TIME without them having to understand the terminology of imaginary square roots. We could describe it as the 'tick-tock' sign, counting the moments as a clock does. I would suggest this as the symbol for TIME, and for PAST and FUTURE the ordinary BEFORE and AFTER symbols but when necessary with 2 dots instead of one thus $\cdot\cdot$. $\cdot\cdot$ (explained as 'tick-tock dots'). The preposition AROUND, SURROUNDING is presumably $\cdot$, and the term for NOW, PRESENT or 'surrounding-time' could be $\cdot\cdot$.

(k) $\triangle$ for SUPERNATURAL, like $\downarrow$ for OPPOSITE, would require one extra special character to type it accurately and this hardly seems justified. The logical symbol would perhaps be --- (opposite natural) or $\cdot\cdot$ (extranatural) or --- (non-natural) or --- (per-natural) or --- (ultranatural), depending on the sense desired, if indeed such a term can have a sense.

B. Pictographs.

(a) Human organs.

1. These should all be shown facing in the direction of the line of writing. This would make the EAR symbol a left-hand curve $\curvearrowright$ (which, unlike most left-hand curves — see remarks on Esklapios' symbol under 5(b) above — would make it a little harder to write accurately, the pen having to start its motion and end it in the two most awkward directions). Similarly the nose symbol would become a little harder to draw accurately Δ . As against this, the symbols of sense organs and perception would become consistent (See psychological schema proposed in next paragraph). The other bodily symbols would then remain as all consistently placed: $\sqrt{\text{---}}$ --- --- --- $\odot$.

2. The hand is primarily a motor organ, as are the legs. This is proved by the design of artificial limbs, although admittedly some sensory guidance by eye or otherwise is needed for their use. Thus $\downarrow$ should mean HANDLE as Δ means WALK. For TOUCH I suggest --- showing a surface tangential to the finger tip, and resembling the tapping of the tongue-tip on the top of the mouth (palate) in

the international root TACTIL-. It would be more logical, however, with all organs to use the active-passive indicators as suggested under discussion of ^ above. Thus: $\odot$ LOOK $\odot$ SEE $\odot$ LISTEN $\odot$ HEAR $\odot$ LICK; SAVOUR $\odot$ TASTE Δ SNIFF; NUZZLE Δ SMELL $\downarrow$ TOUCH; HANDLE $\downarrow$ FEEL Δ WALK Δ GROPE; FEEL ONE'S WAY $\odot$ ACT (DELIBERATELY) $\odot$ PERCEIVE (CONSCIOUSLY).

In these examples there is a progressive shift of the Action indicator from the top to the right-hand side of the main symbol. The latter position is consistent with the spatial sequence of stimuli or of the chain of cause and effect and with the psychodynamic scheme below. It would save space (vertically) and time in typing (to adjust height of symbols).

3. The MIND symbol: $\odot$

The use of the arrowhead and/or dot in conjunction with the MIND semicircle $\odot$ can adequately encompass all psychological terms so far attempted by me. The 18 'areas' of the mental 'field' in and around the semicircle are described in my lecture on "Semantics and Psychiatry" in this Series. Briefly, there is a convention that the mind symbol represents present conscious intellectual activity in its right-hand half (including the square which is the same height and width as that half of the symbol) and in its left-hand half pre-conscious (readily recalled) intellectual activity. Emotional (as Korzybski might say, 'thalamic') activity is similarly represented in the squares below and conscience or idealistic or moral (socially-conditioned 'guilt' complex) trends in the upper squares. Alongside these 2 columns of 3 levels of squares are 2 further columns on the right representing in turn the endorgans (motor and sensory) and (on far right) external environment, and 2 more columns on the left representing forgotten material (in the far left column, inborn trends; in the intervening column repressed or actively forgotten, distressful-conflict-producing material). A few examples of common terms follow:

MEMORIZING	KEEPING IN MIND (RETENTION MEMORY)	KEEPING BEFORE MIND (ATTENDING TO)	RECALL	LEARNING ACTIONS	REMIN- ING
STIRRING REMINDER; EVOKING SENTIMENT	MORAL SENTIMENT (TOWARDS)	RE- PRESSION	SELF- CONTROL	DOUBT	UNCONSCIOUS CONFLICT OF FEELINGS
	DESIRE				

SCIENCE is 'mind contemplating actions of universe' which would clash with my above suggestion for GOD, and in fact many scientists engaging in this contemplation make themselves gods in their minds. On the other hand, the common view of scientists (whose discipline Bliss symbols claim to follow) would be that a skull-cap and its contents (cerebral hemisphere, cortical gyrus, or axon arcs) are represented by the MIND semicircle, and to attribute this to some humanly postulated Guider and Creator of the universe is justifiable only on some basis of faith, not by science. The notion of faith should then appear in the symbol for GOD. My symbol for faith would perhaps be $\odot$ 'belief/sentiment outside or subnormally within science' and God: $\odot$ (This illustrates one interpretation of the Hindu and Christian idea of the Trinity. The dot in the inborn, unconscious column -- far left -- representing God the Father (Hindu Brahma or Creator) and Jung's Racial Unconscious (with its ethical level to the fore) the centre dot representing the voice of conscience which communes with us or Holy Spirit of Christendom (Siva of Hinduism??) and the far right (environmental) dot representing the objective, external God (God the Son; Krishna of Hindu lore). Similar trinities occur in some Buddhist sects and others.)

As all thought is more or less related to the universe, art, or mysticism, we must try for some more distinctive feature of scientific thought to produce a logical SCIENCE symbol. The distinction I find is science's mathematical analysis, semantic fundamentalism, setting of norms (including norms for meanings, terms) on the basis of statistical probabilities from more direct, concrete or 'unquestioned' observations (Bliss's photographables). This strictly limits its approach to universe from mind, and the symbol for limits $|$ $|$ (boundaries) may well be shown enclosing the mind symbol $\odot$ in relation to the universe so that we have the symbol $\square$. This should keep the scientist humble in realizing that the vast extent of knowledge beyond his mind is greater than the mind. As one great humble man said, we are, in our profoundest research, like children gathering seashells on the shore, and through these trying to fathom the secrets of the deep. This brings me to the technical term for NORMAL, shown by Bliss as $\cap$ and quite consistent with the foregoing proposals, along with the symbols for subnormal $\cdot\cap$ and supernormal $\cap\cdot$. It was an enjoyable event to Mr Bliss and me when I came upon the same symbols as my suggestions but from a very different line of reasoning independent of the MIND symbol! Here were my reasons:

The 'normal curve of distribution' for a randomly deviating quantity with a mean (average), mode (most common), or median (geometric mean or 'root mean square') central value, for example intelligence (according to Binet and other 'psychometric' tests), body height and weight, body temperature etc., is the so-called

'bell-shaped curve' represented approximately in Bliss symbols by . Using this curve as a frame of reference we can draw a bisecting line to represent MEAN  and the same with root and square symbols  for MEDIAN. In these curves, the height of the graph represents the number of cases showing the particular gradation of value, and the distance along the horizontal represents these gradations. MODE can thus be distinguished by adding a tangent to the summit of the curve  with or without the bisector. Scientists are wont to set a tolerance $\pm$ or range of variations from the mean, median etc. which they arbitrarily describe as a NORM in selecting what they will study as a 'most representative' sample of the group of cases mentioned. Thus I have suggested a symbol  for setting a norm, and the above symbols for normal etc.

GOVERNMENT is the action of those in authority or power restricting | those under their authority. As in my psychodynamic scheme the symbol  means something in the environment calling forth a deliberate response (GOAD; STIMULI) it would not be altogether inappropriate, but perhaps a more logical symbol would be  =  (limiting citizens). Because it incorporates the sign for OPEN (Bliss's symbol ) it distinguishes government from confinement, , at the same time stressing that in return for freedom on our private territory and under our own roof (or lack of it) we have to conform within certain limits | | for the benefit of the neighbours on each side. This is, in fact, the whole (ostensible) purpose of government. For the more general sense of mentally guiding or leading as shown in the Bliss symbol  I think we can use a composite symbol, perhaps  ('pathway the mind'), which also introduces the LIMIT symbols in a metaphorical sense (kerbing). DIRECT GUIDE; STEER  GOVERN (in the cybernetics sense, as by governor of a steam-engine) .

GOODNE S, RIGHT, CORRECTNESS, TRUTH and the counterparts EVIL, UNPLEASANTNESS PAIN, LIES etc. are just different placings of the positive-negative evaluation on the psychodynamic schema. Thus TRUE  DIFFERENT  PLEASANT  KIND  INSTINCTIVE REPULSION  INBORN GOODWILL .

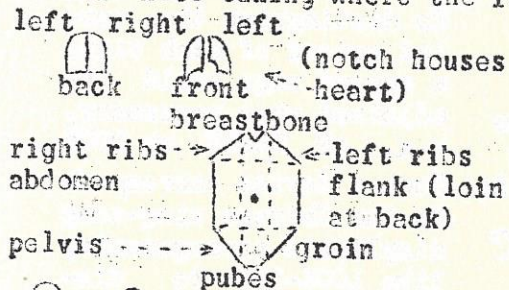
TEACHING and LEARNING are giving and getting knowledge. Knowledge is possessing in the mind. I suggest that to possess is simply to HOLD  and this is more accurate than the notion of CONTAIN  in the existing Bliss KNOWLEDGE  sign. The term HAVE can be shown as a simple (shorthand) form of HOLD, using the small semicircle (1/2 the mouth symbol) thus: . Various categories of knowledge can be shown thus: REMEMBER  HAVE IN MIND  UNRECALLED  DEAL WITH .

5. A gland is an organ with a stem (neurovascular bundle) entering it thru a notch (hilum) and surrounded by a connective tissue envelope (capsule). In the case of exocrine glands there is a duct leaving the hilum. The pulp (parenchyma) of a gland may be divided into rind (cortex) and pith (medulla). All of these subdivisions may be shown by using a symbol for gland  (an ovoid with a smaller bracket to indicate the notch). Kidney can then be represented  (SOLUTION being shown as liquid-alongside-liquid ) sweat gland as  (water-evaporating gland) sebaceous (grease) gland as  (oil instead of the repeating symbol  being shown by the reversed meniscus of a droplet on water) , breast as  (milk as oil-in-liquid emulsion ). The pituitary can be shown as the brain gland, thyroid as metabolism (body-chemical) speed-gland, , gonads as male or female glands etc.

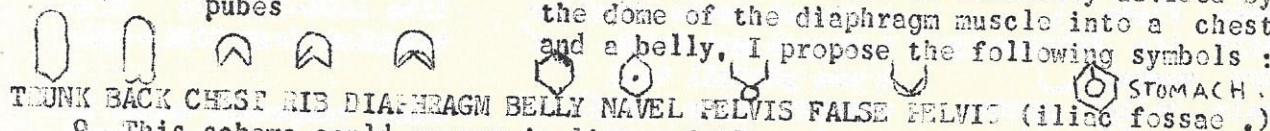
6. A duct can be shown by the tube symbol  after the gland. Thus ureter is kidney duct, urethra is bladder duct, cervix uteri is womb-duct, vagina is female duct, uterine tubes are oviducts, anus is rectal duct, pylorus is stomach duct.

7. A mouth is an opening, and it is doubtful if a separate symbol  is necessary in describing body openings and foramina. Thus urethral meatus could be .

8. The TRUNK symbol  is not appropriate to the usual symbolism used in medical note-taking where the following outlines are conventional:

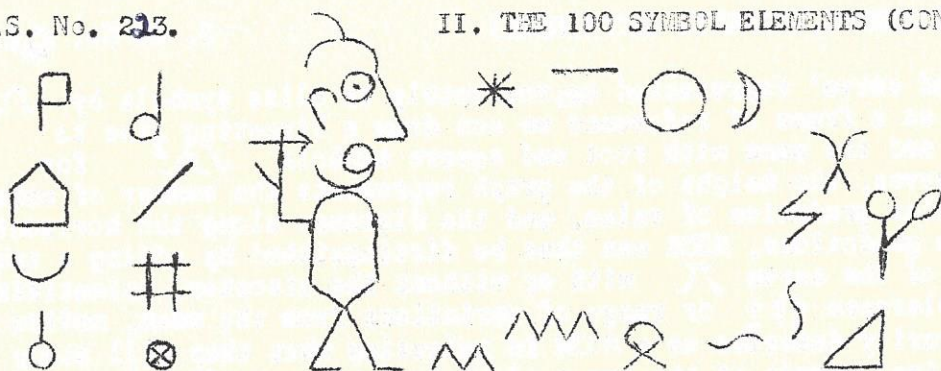


The 9 regions distinguished by the dotted lines in the abdomen are the right and left hypochondrium (plural: hypochondria) or under-rib regions; epigastrium or centre top; umbilical (navel); right and left lumbar (loins); hypogastrium (supra-pubic region); right and left iliac fossa (plural fossae) or hip-bone cavities. As the trunk is naturally divided by the dome of the diaphragm muscle into a chest and a belly, I propose the following symbols:



9. This schema could appear in lists of Bliss terms for easier learning:

(next page)



(b) Other natural pictographs.

1. The bird symbol represents a WINGED BIPED and should have the same LEG components as $\wedge \wedge \wedge$ thus χ .

2. The WING symbol suggests a symbol FEATHER $\nearrow$ (pen like branch on wing)

3. The monocotyledonous leaf $\frown$ suggests a symbol for LEAF in general $\circ$ which is incorporated in the above schema.

4. The elements $\vee$ are sufficient to characterise a plant ('leafed individual') and the flower-head cannot logically be included if non-flowering plants are to be embraced in the term.

5. The TREE $\uparrow$ symbol can be simplified to $\vee$ which has the same advantages as the $\triangle$ symbol for HILL. For example:

	axil	
	terminal bud	lateral bud
terminal shoot	$\vee$	lateral shoot; branch
stem; trunk	$\vee$	fork
taproot	$\vee$	adventitious root
root tip	$\vee$	lateral root

In botany, it is important to distinguish terminal from lateral shoots and the relative positions of axils giving rise to lateral shoots.

6. The FISH symbol could be shown as the small semicircle over x thus: $\overline{x}$ which resembles a jellyfish swimming upward as well as the finned fishes whose fins are analogous to the legs of dry-land animals and at times used for legs (as in the Queensland lung fishes). It is also not unlike the anemones, corals and other fixed sea animals, urchins, shellfish etc. (See also later after the surf sign suggestions).

7. A special symbol for SUN is not strictly needed as the sun is simply the nearest star, and could be referred to as STAR ZERO (zero being a sort of starting-point or point of reference from which measurements start in a system of co-ordinates or plotting of positions in space). Thus $\ast_0$ could provide a compromise symbol ϕ or $\otimes$ for which the existing symbol $\circ$ could be a shortened version.

8. Similarly there is no need for a special symbol for MOON which is just a SATELLITE OF A SATELLITE (or planet of a planet) which might be expressed in 'mathematical' language as a satellite to the second power (two factors of satellitism) or PLANET² thus: $\oslash^2$. A planet, however, is in this sense a sun reduced to a lower power, or STAR⁻¹. EARTH would then be $\ast^{-1}$ and MOON (of earth) $\ast^{-2}$ ($\ast_0^{-2}$).

9. This in turn suggests that other Bliss symbols may be replaceable by existing typewriter characters without too much complexity or abstruseness, e.g.

A aid	Δ	support	Δ	a arms	χ
B bump touch	J	push	$\rightarrow$	b bud germ embryo	$\oint$
C curve	$\curvearrowright$			c curl	
D deck cover	$\wedge$	sheet		d dong music	d
E each category		shelve		e egg	$\circ$
F finger(board) index				f fluff flower	$\circ$
G grip grab cramp clamp				g glass(es)	$\circ\circ$
H hurdle goal aim	H			h house hut hive	$\triangle$
I I individual	I			i it item	I
J jerk hook jaw	J			j jimmy crowbar hand	$\downarrow$
K kind species	χ			k kin family	
L lift elevation	$\uparrow$			l line length	$\sim$
M move animate animal	$\wedge$			m mound mount(ain)	$\triangle$
N no negate opposite	$\downarrow$			n nail scale flake plaque	$\triangle$
O ought (nought) zero				o ope orifice oral/fruit	
P pennant flag standard	P			p prune plum pear peach &c	$\&c$
Q quench jet flow	$\circ$			q quell axe	
R rig apparatus				r roll scroll spiral	$\circ$
S sear flame	$\}$			s scorch smoke smoulder	
T tilt tip balance	$\triangle$			t trench cut knife	$\times$
U urn vessel	$\cup$			u use utensil tool	$\uparrow$
V vale valley groove	$\cup$			v valve flap wing	$\vee$
W wave	$\sim$			w wet water wash	
X X cross				x x multiply times	
Y yoke link	∞			y yarn twist	
Z zone	$\rightarrow$			z zig-zag electric	ζ

The words are chosen in each case as monosyllables or brief disyllables with initial corresponding to the letter in English. Of course, the same thing, or similar, could be done with other languages.

To distinguish the varied senses of each sign, a second sign could be adjoined when necessary, e.g. oE SHELF oh DOOR. Such a device corresponds to the Chinese sing-song disyllabic arrangements, like LOOK-SEE to distinguish from OCEAN-SEA.

Other compounds would be
 2A BIPED 4A Q DRIPED
 8A SPIDER 10A CRAB 100A
 CENTIPEDE 10³A MILLIPEDE
 jZ ELEPHANT (hand-nose)

10. Health is more than absence of sickness. It is a positive force. Yet it can be defined only in terms of setting norms. The boundaries of the normal are taken as healthy, but not as healthy as the optimum. I think the norm symbol must be shown in the symbol for health as a medical term. It could be  or . A simpler convention would be to indicate the upright individual,  (as distinct from WEAK ) with the medical serpent superimposed as  indicating right (straight, upright) medical status.

(c) Pictographs of artificial objects.

1. With the symbol  replacing  the term TOOL  becomes . With  as the symbol for DIVISION, a dividing tool is then appropriately shown as . A dividing machine as  (mincer, slicer etc.) MECHANICAL FLOUGH as . The symbol for GUN is better shown as under II.A.5(c) above. As war begins in the minds of men and is a social sickness, a mind mathematics must show the elements of sickness in the symbol for WAR. The connection is too subtle between  WAR and  SICK. Perhaps the symbol for war could be  'killing nation'  which is nearer the brutal truth and horror of war than the comparatively chivalrous picture of a duel between two equally matched blades. It also suggests, in the war process, essential insanity in that war seeks to correct the actions of a nation by destroying the one component which it might be possible to reform in its actions, leaving the soil and the system of government  and  more or less untackled, although the original source of the trouble is as likely to have been there (adverse natural conditions or political establishments) as in the victims.

2. The  on page 117 should be  to incorporate the PEN  symbol. On page 145 2  should be .

3. HOME might be shown as parent  in house . This recalls the father at an open tent door welcoming the prodigal son, as I recall the story. 'Home and hearth' suggest we might have pictured a fireplace , but I am writing now from a part of this continent where most homes have no fireplaces. 'Home is where the heart is'.

4. Turning the house symbol on its side gives us a symbol like a label used for parcels . It also resembles the symbol for a page  with an action/relation symbol on one side (in this case pointing to the left), and so might be taken as a document executed in relation to something. I suggest it as a symbol for NAME. In fact, the term TAG is commonly used to mean either a name or a label, 'giving something a name' is often referred to as 'labelling' it, and the notion of house or home is also connected with the idea of naming — giving a name is categorizing, 'sheeting home' a classification, placing in its pigeon-hole etc. the thing named. We should be wary of the semantic traps in naming, as subtle as the traps of metaphor. Thus the symbol  must be taken as a warning sign when we write or read it. We should beware of what Korzybski has called identifying, i.e. treating all objects with the one name as if they were the same. Korzybski suggests a device to avoid this which he calls indexing, thus: MAN₁, MAN₂ or ADAM₁, ADAM₂. Bliss has already pointed out that in many situations this identification is harmless, for example in most dealings with cattle it may be harmless to identify COW₁ and COW₂. It is in the attributes we give, consciously or unconsciously, to the individuals that danger lies. An example: NAZI₁ is not NAZI₂, especially when the two individuals so labelled are not so labelled by the same person (Nuremberg trials judge, Stormtrooper etc.) It is as well, however, to realize that this element of subjective judgment or giving of attributes occurs whenever we name anything, and that the element of danger of misunderstanding can never be entirely eliminated. This point was made by Dr Johann Philip van Leent, a colleague of mine who helped with my criticism here published, when he described Bliss symbols as 'categorical thinking'. All tags including Bliss symbols categorize. Bliss's main achievement was in giving a simple method of dissecting out the subjective elements once we become aware of the need for it, and by giving training in so doing, Bliss symbols will make us more aware of that need when it arises, or more often aware of it.

The concrete label has the same purpose often as the spoken or written name. I therefore prefer this symbol to Bliss's  or  which could be a much more logical and useful term to mean EXPRESSION (verbal or written) which could be further subdivided (as ,  etc.) to indicate word, letter, and compounded (as ,  etc.) to mean clause, sentence, paragraph, chapter literary work etc.

6. Needle (page 333) could be . Thread/cable etc.  (or see later after surf sign suggestions). Symbol for hotiron should point to right (normal — direction of movement)  page 339. DIAL should be  ( is ATOM) or  ('number on disc') or  (H MEASURE).

7. $\vdash$ representing the finishing-line of a race (tape) or the goal in a ball game can be used to mean GOAL, AIM, PURPOSE. The shorthand form $\vdash$ ENOUGH can convey the idea of sufficiency as in TOO BIG $\vdash$ or $\vdash$ 'after enough' TOO.

III. SPECIFIC COMMENT BY PAGE NUMBER.

P. 100. I would prefer the symbol $\sim$ (as on p. 143) before $\sim$ for WATER. See remarks on FIRE symbol under II.A.5.(b) above.

P. 101. For WAVE I prefer $\sim$ or $\sim$ (semi-circles) which resemble the alternating current symbol used on electrical equipment (compare this on p. 117).

p. 105. QUESTION ? ANSWER ? or ?

p. 107 last line: At 19.45 on 5th September 1948 may be logically shown from the more general to the more particular item thus: 1948.9.5.19.45. To break the sequence of full stops (as in large numbers where some countries alternate dots and commas thus 1.600.000.000,01 for 'one thousand million and one hundredth') a comma would serve thus: '48.9.5.19.45.

p. 109. GRAIN would be better shown as seed above earth ? or ? . (for the plant) and ? or ? (for the harvested kernels). The repetitive ? could serve for SWARD, PASTURE, LAWN (compare FOLIAGE in Note on SAFO below). This would avoid the hesitation I used to experience in choosing the right symbol of GRAIN as distinct from GRASS.

p. 110. $\dagger$ could be expressed by $\div$ (a DIVISION) or $/$ (same symbol as DESTROY but not intersecting).

p. 122 RADIO ? .

N NUMBER (this represents 2 right hands $\uparrow \downarrow$, each digit of each checking each digit of the other, that is, counting, 'placing in one to one correspondence'. $\#$ should be reserved for SIZE, its commoner meaning in British (as distinct from U.S.A.) usage (wire gauge symbol, etc.) $\#$ represents contact surfaces of 2 pairs of calipers or screwgauges measuring different diameters of an object in the space enclosed by the four lines. It resembles the related 5 terms $\text{---} \text{---} \text{---} \text{---}$ (HIGH, LOW, NEAR, FAR, SCALE).

X SCALE should be + or x . Compare + FIN, + PASS, Δ FEMALE

For COUNTRY I prefer $\text{---} \text{---}$ instead of V which would be WOODLAND (in Australia, BUSH(LAND)). Province ? (part of nation).

p. 123. ADDRESSEE ? HOUSE NO ? N . Order of information from general to particular: country, state, province, town, suburb, street, house, floor, room and person: surname, personal names. This is the order of names in Asia and of addresses in Eastern Europe. (Germans compromise with name, street, house, town and there are various mixtures of usage elsewhere between the extremes of West and East).

p. 137. Indicators may be shown in line of writing: $\text{+} > \text{?}$ MIXER, $\text{+} < \text{?}$ INGREDIENTS, $\text{+} < \text{?}$ MIXTURE.

p. 142 THUNDER = sound from lightning ? .

GROW should use PLANT symbol v perhaps lengthened to include L symbol for INDIVIDUAL (as in TREE and LIFE) thus: + or $\text{+} \uparrow$.

p. 143 MOUNT STAIRS $\text{+} \text{?}$ or $\text{+} \text{?}$. BRIDGE should use small $\frac{1}{2}$ -circle --- .

OIL is fixed (glyceryl esters) --- or volatile oils --- (see my 'Chemical Shorthand for Organic Formulae' 1943 or later in this series my 'Chemograms and Chemonyms'). These can be summarized as --- . This looks like a drop of oil on water, or a wave --- glimpsed behind a wave --- . This overcomes objections to a repetitive symbol as for GRAIN page 109 and ICE).

p. 146. Better for CONE is Δ Δ Δ or Δ .

OVAL ? FERTILIZED EGG, EMBRYO ? SPERM ; (tailed seeds: see I. 7. above)

p. 150. SELF should be a reflexive symbol - probably before 'verb' as in French

p. 151. REPEAT is plurality of an act (a CONGLOMERATION $\rightarrow \uparrow \leftarrow = \text{x}$). This can be $\gg$ or $\text{x} >$. The term || can then be reserved for PARALLEL, ANALOGY, MET-

APHOR. I USED TO SEE $\lambda_1 \ll |e$. The term $>$ then means TIME in the sense of EVENT, OCCASION.

p. 153. MARK, SPOT $\langle \odot$ PICTURE $\square \langle \odot$ TRANSPARENT $\nabla \odot$ TRANSLUCENT $\odot \nabla$ SHAPE is detected by hand and eye and the term $\odot$ would serve to describe it as well as ∇ . SEARCH $\odot \gg$ FIND $\odot \nabla$ or $\odot \langle \nabla$.

p. 154. COLOR is 'mind interpreting split light through eye in gas or liquid,' $\odot$ split $\odot$ LIGHT $\odot$ COLOUR (part of light) $\odot$ RAINBOW. The sunrise and sunset colour is red and this appears on the outer rim of the rainbow. $\odot \langle$ RED. We can arbitrarily set the dilution of colour along a scale from left to right: more pastel (diluted with white) colours at left, stronger (more vivid or pure) colours at right. Thus $\odot \nabla$ PINK. The centre of the eye and centre of the sky are often blue and this is the inner colour of the rainbow. $\odot$ SKY BLUE. $\odot$ DEEP BLUE. $\odot$ GREEN. $\odot$ LILAC. $\odot \nabla$ VIOLET. Finally we can indicate intensity of colour (brightness, or its opposite: admixture with black) by distance up or down on the diagram: $\odot$ DARK RED. $\odot$ BRILLIANT PINK.

p. 156. Sound is an action of air, not of the earth (as far as ears are concerned) but we are normally more interested in the source than the medium. Supersonic waves are $\cup$, $N/\odot \rangle \nabla$. LIGHT is $\cup$, $\odot \langle$. There is no light without an eye, so we may write SUN SHINES $\odot \odot \langle$.

p. 157. A smell is always a gas (for land animals). The earth symbol is awkwardly placed. The SMELL (substance) could be shown as ∇ or $\nabla \nabla$.

p. 160. A secret is a statement shared by a few $\odot \langle \times$ kept from others $\odot \nabla$. SPIT suggests $\odot \nabla$ URINATE. $\odot \nabla$ DEFECATE. $\odot \nabla$ EXCRETE.

p. 172. ∇ or ∇ JOY $\nabla \nabla$ BLISS $\nabla \nabla$ HAPPATHY (emotion small) $\nabla \nabla$ LIKING (positive reaction at emotional level) $\nabla \nabla$ LOVE (moral, intellectual and emotional conscious and preconscious: reinforced by instinctive inborn trend toward environment) or more shortly $\nabla \nabla$ (strong instinctive attachment). If the love is deliberately fostered by the love object this would become $\nabla \nabla$ (requited love) otherwise $\nabla \nabla$ according to the psychodynamic scheme. BEAUTY relates to all perception and therefore is positive evaluation of environmental object at end-organ level $\nabla \nabla$ PRETTY, NICE plus an emotional response $\nabla \nabla$. Sensual gratification would be $\nabla \nabla$. All of these are more or less arbitrary and the scheme permits of countless variations, nuances and subtleties using ∇ , ∇ , ∇ , ∇ , ∇ , ∇ and linking lines.

p. 173. Sense of freedom $\nabla \nabla$ WORRY $\nabla \nabla$... (continuing complex ∇ or conflict of ideas ∇ with negative affect). Sense of vulnerability or $\nabla \nabla$ etc. ATTRACTION $\nabla \nabla$ REPULSION $\nabla \nabla$. HARMONY $\nabla \nabla$. DISHARMONY $\nabla \nabla$. Feeling of opposition $\nabla \nabla$. ANGER $\nabla \nabla$.

p. 174. Feeling of luck $\nabla \nabla$ (=HOPE). DESIRE $\nabla \nabla$ (like to have). REST : ∇ (lying). PEACE $\nabla \nabla$ (like universe).

p. 176. KNOWLEDGE $\nabla \nabla$ (true retention). WISDOM $\nabla \nabla$ (retention of good, true and beautiful or pleasant). INTELLIGENCE $\nabla \nabla$ (rational trend). High intelligence $\nabla \nabla$ (above normal). TRUE $\nabla \nabla$. GOOD $\nabla \nabla$ (moral). NICE $\nabla \nabla$ (pleasant, pleasurable). PROBABLE $\nabla \nabla$ (future). IMPROBABLE $\nabla \nabla$. DECIDE $\nabla \nabla$ (rational trend arrives at end-point: pre-action attitude). GUESS $\nabla \nabla$. SURPRISE $\nabla \nabla$. INTEREST $\nabla \nabla$ (attention with positive affect). A thought, idea, inspiration $\nabla \nabla$ (pre-conscious trend arriving at rational conclusion). OPINION $\nabla \nabla$ (rational trend with positive rational((truth)) judgment). OBSERVATION $\nabla \nabla$ (reaction to stimulus of mind through eye). PURPOSE $\nabla \nabla$. OPPOSITION $\nabla \nabla$ (deterrence). CONTRADICTION $\nabla \nabla$ (expression of decision of untruth). WORRY $\nabla \nabla$ (rational conflict and negative affect). PROGRESS $\nabla \nabla$ (conscious-act-gain). $\nabla \nabla$ (action toward goal evaluated true). GOVERN $\nabla \nabla$.

p. 177. SECURITY $\nabla \nabla$. TOOL $\nabla \nabla$. USEFUL $\nabla \nabla$ (approach goal). WILL $\nabla \nabla$ (trend). $\nabla \nabla$ (strong). WILLING $\nabla \nabla$ (parallel). REFUSAL $\nabla \nabla$. PERMISS-ION $\nabla \nabla$ (remove limit). REFUSAL $\nabla \nabla$ (not permit). DECISION $\nabla \nabla$. DECIDEDLY $\nabla \nabla$ (truly).

p. 179 GOOD $\nabla \nabla$. TOLERANCE $\nabla \nabla$.

p. 181. APOLOGY $\nabla \nabla$.

p. 215. The accounts of military observers should not blind us to the fact that there are still today tens of thousands of Japanese dying of blood disease.

caused by radio-active fallout, that is, by intake of food and drink contaminated by radio-active atoms created during and shortly after the atomic explosions in Japan. Moreover, Japanese fishermen and islanders hundreds of miles outside the "danger" area have been killed by fallout from H-bomb tests in the Pacific, and it is rumoured that worse disasters occurred in Siberia. We should take some warning from responsible scientists as well as from militarists.

p. 227. No leaning out of window: $\neg$! $\boxplus$ (CURVE: $\curvearrowright$).

No throwing out of window: $\neg$! $\boxplus$ ¹

(From) Monday to Friday: $\textcircled{2} \rightarrow \textcircled{6}$ (inclusive); $\textcircled{2} | \rightarrow | \textcircled{6}$ (not i.)

My personal preference for numbering days would be from 0 to 6. This would agree with the commonly established idea of "week-days" (Monday to Friday) followed by "week-end". It would agree with the same notion in Melanesian Pidgin English, where WUNDE, TUDE, TRIDE, FOADE, FAIBDE are the days Monday to Friday. Thus: Mon.-Fri. $\textcircled{1} | \rightarrow | \textcircled{5}$ (not inclusive).

p. 228. NEWS is information about the recent past conveyed at second-hand (symbolically, or as Pavlovians would say by the second signal system, or as Korzybskians would say, by abstractions at cortical level). I would thus symbolize it as $\neg \dots / \parallel$ (expression-past-near) or in original Bliss components $\circ, ? \parallel$. LANGUAGE is the verbal expression and aural interpretation of a community and should, I think, be expressed $\neg \circ \Delta$. It is significant here that the ear $\neg$ is the organ thru which the speech of the community becomes the speech of the individual, and the reversed order of the components is significant in this way. A SPEECH (piece of spoken communication) would be $1 \circ \rangle$. A spoken WORD would be $/ \circ \rangle \rightarrow$ (a part/of speech, moving in relationship, i.e. able to be varied in relative position to other speech-components without change in sense). A LETTER is a sound-symbol of written expression $\neg : \neg$. A SENTENCE is a grammatically complete statement (interdependent word-cluster). A symbol for syntax is desirable to express this. SYNTAX is the structural connections between words. A SENTENCE could be 1Δ . A CLAUSE is a dependent statement $1 \Delta / \Delta$ or sentence. A phrase is a part of a clause $/ \Delta / \Delta$. A PARAGRAPH is a logically (semantically) connected group of sentences $x \Delta$ and a CHAPTER a similar group of paragraphs $xx \Delta$. A LITERARY WORK is $\parallel$ (a writing, prescription, script, scripture, brief, document, missive etc.) A JOURNAL is a periodical series of collections of works $x \parallel \dots$ (the two dots of time-dimension also signifying repetition, "ditto marks").

p. 229. SEMANTOGRAPHY is a mind-disciplining tool as well as a pasigraphy (world writing). I would symbolize it as WRITING IN SCIENTIFIC CATEGORIES or $\boxplus$ (the SCIENCE symbol being $\square$). This is the symbol Σ with the superposition of ∇ the symbol of LIMITS OF THOUGHTS WITHIN AGREED BOUNDARIES (of meaning) as for the symbol NORMAL $\boxplus$.

p. 230. ALL may be shown by $\boxtimes$ approximating the mathematical ∞ (infinity). According to Riemannian geometry and relativity physics infinities are bounded, and the unbounded universe is finite. I think therefore Bliss's $\boxtimes$ is an appropriate "strait-jacketing" of the infinity symbol. (BOUNDARY $| \setminus |$).

p. 233. PERIOD of time $| \dots |$.

JUDGE means to come to a decision (between positive and negative if one is restricted to two-valued judgment as in our law-court pleas of "guilty or not guilty", now fortunately tempered in some parts of the world by the medical concept of "diminished responsibility" and in practice by the discretion of the judge etc.) TOLERANCE $\pm$ is implied. I would use $\pm$ for MORAL JUDGMENT.

p. 237. PASSENGER $\textcircled{\Delta}$ or $1 \textcircled{\Delta}$ or in general $1 \rightarrow$ (TRAVEL $\rightarrow$).
TRANSPORT $\textcircled{\Delta}$. PASSENGER TRANSPORT $1 \textcircled{\Delta}$.

p. 239. SOUND is waves in gas striking ear $\sim \neg \neg$ or simply $\neg \neg$ (hearing) or $\neg \neg$ (successive condensations of gas entering ear).

p. 241. ENOUGH, SUFFICIENT signifying FULFILMENT, SATISFACTION $\ominus$ needs no special symbol but simply $\ominus$. However, ATTAINMENT of a goal is a related concept and can be shown as $\textcircled{\Delta}$. The $\neg$ evaluation indicator for FULL should not be omitted as $\ominus$ alone means TRANSPORT VESSEL (which can be well emphasized by a superscribed $\pm$ indicator: $\pm \ominus$) as distinct from CONTAINING VESSEL $\cup$. To avoid this confusion altogether I think FULL deserves a separate sign such as $\boxplus$ (enough contained), $\boxtimes$ (holding to top).

p. 242. LEARN $\curvearrowright$. TEACH is cause to learn $\neg \curvearrowright$. (Any symbol for "giving knowledge" would suggest that knowledge is lost by the giver).

- p. 244. HAMMERED HAMMERABLE (malleable) HAMMER-LIKE
HAMMERABLE (liable to hammer) HAMMEREDS (beaten wares)
HAMMERINGS (indentations resulting) or simply or
(RESULT OF BEING HAMMERED).
- p. 245. THE BREAK (gap formed) .
- p. 253. COIN is DISC of MONEY or .
- p. 255. ACCOUNT .
- p. 258. YOUNG is SMALL IN GROWTH or simply GROWING . YOUNG INDIVID-
UAL could be are for me the poetry rather than
the logic/semantics of Bliss Symbols. I find them all attractive but not neces-
sarily ideal.]
- p. 273. SELF is a reflexive. OTHERS are outside self or just
OUTSIDERS . SELFISH or (taking pleasure in self) ;
ALTRUISTIC (helpful) .
- p. 274. In the same way as I suggested for SUN , so could represent
the first person (ZERO point of reference of co-ordinates) which resembles a
short version of (the person expressing). A good colloquialism would
be (THE WRITER). The 'second' person is (for Bliss symbols) the READER
 and this could be abbreviated to . The terms , , , ,
etc., and their permutations, could then be used for THAT PERSON, THE SECOND I,
THE THIRD WOMAN, THE FOURTH THING (or THIS ONE, THAT MAN, YON WOMAN, THE OTHER
etc.) to avoid confusion often seen in the use of 'he', 'she', 'it', 'them' etc.
when more than one antecedent noun may be referred to by such a pronoun in the
same sentence. would then be THIS PERSON, an alternative to or distinc-
tion from . Thus: , , , , , , "I, you, this
one, that, yonder and the other one". Similarly HERE THERE YONDER
 ELSEWHERE . THIS THAT YON THE OTHER YET ANOTHER
 etc.
- p. 275. Verbs of status (STAND, LIE etc.) have two functions (1) the ACT of
putting(oneself) in the position, (2) maintaining the position. The latter de-
scribes a shape, or spatial disposition: . It could be shown therefore
without the action indicator, or with thus: BOWL STANDS
STREAM-BED SLOPES.
- p. 279. SANSARA, 'the wheel' of Buddhist philosophy represents the recur-
ring cycles of rebirth leading eventually to the purging of sin and weakness &
misery, obliteration of sensation which is suffering, and attainment of NIRVANA
the peace of freedom from rebirth in this frustrating material world, absence of
change.
- p. 280. BIRTH is DEPARTURE FROM PARENT as individual or or
(young from parent) or . GERM, EMBRYO, GESTATION .
Biology uses a small circle to indicate a young animal (sex indeterminate) usu-
ally after the symbols ♂ (male) or ♀ (female), or with suffix juv (Latin
juvenis 'young') thus: .
BROTHER refers to SON OF SAME PARENT or (COMBINED WITH --
see below) or . SISTER .
COMBINED WITH is an optical symbol (referring to a battery or combinati on
of lenses). This suggests the short form WITH and the wider COMBINE ,
AMONG/BETWEEN . Surrounding: . The symbol + may be derived from 'a
mark of confirmation': (Gould's Medical Dictionary 1943) compare 'tick'.
This could be associated with affirmation in BE (mouth affirming existence
of).
Lenses can all be shown as (intersecting 'movable' spheres)
REFRACT .
- p. 379. CATION ACID ION or .
- p. 381. To avoid clash with TREE, use for GRAPH ('CURVE').
- p. 394. ABERRANT TELA OF ENDOMETRIUM . INTUSSUSCEPTION
ILEUM COLON . (3rd division of narrow foodtube; wide food-
tube). PULSE or . TENDER (sharp touch). ENDOMETRIOSIS
OF PELVIS (lining of womb moved into pelvis). RECTUM VAGINA
CELLULAE (white cells) . HYPEREMIA (overfull vessels) .
MUCOSA SUBMUCOSA . STROMA (compare LENS 'medium

'bend on self'; ~~X~~ FELT:hair/grass).

p. 396. COCHLEA 25 :  (covers middle ear) etc. or
6 :  (middle ear cavity). BONE  (hard tissue). HAMMER
ANVIL  . 7 :  (STAPES)  . 8 :  . 10 : 

pg 398. STETHOSCOPE (tool tube ear). SYRINGE or

p. 324. CO₂ in Chemograms is ∞, AERATED WATER ∞ or ∞. ALCOHOL ++
 SOUR is H⁺ or H⁺ or PROTON (+) - see note above re page 379. SWEET is taste
 of saccharide + or bee-fluid ∞.

p. 313. To cause less ambiguity among qualifiers a double comma on the baseline could be used as part of a composite symbol (just as the single comma is used):
A.I., 'A', 'A'↑ 'a young, prettily-dressed girl'.

It is possible there should be, for greatest ease of learning, a constant order of qualifiers. In French there are separate meanings for grand-fille (grand-daughter), grande fille (big girl), fille grande (great girl). In English, 'one girl' cannot be expressed 'girl one' as a rule -- this would mean rather 'first girl'. Bliss uses the German device of a period (full stop) after the number to indicate ordinals, but writing the number after the object it limits should suffice. Thus 1_A 'one girl', 1₁ 'first girl'. If the general rule is 'qualified before qualifier', we should write addresses thus: Australia, Wales South New, N1, Newcastle, Merriwether, Street Main, 'Emoh Luo', 123, Floor 4, Flat 5, Room 2, Major Smith, Black-, John, II, V.C. This is the reverse of the order normally used in English except for the title and qualifications of addressee. Similarly for times the logical order would be from general to particular as with numerals, measurements etc.: A.D. 1960, August 8, Monday, 18:50:30 o'clock. (15½ past 6 p.m. on Monday the 8th of August, 1960 A.D.)

p. 318. ACROSS is FAST ON(OVER) → (FAST →). CROSSING ⇄ . WHEN could be shown as a shorthand form of ⌚ thus: ⌚ (MOUTH symbol + arrowhead indicating A POINT IN FOCUS IN THE FORWARD FLOW OF TIME which extends perpendicular to the three planes of space.) BUT means AND, ON THE OTHER HAND or AND, OPPOSED TO THAT. It could be shown + ('opposite of and'). OR means that if one is included, the other is excluded -- as on a balance if one side rises, the other must fall -- using therefore my suggested revised symbol for BALANCE(above), we can derive T OR (contrasting in shape with + AND which has the two horizontal arms, as it were, stabilized by the 'transfixing' vertical bar, just as its meaning is a linkage of two items on a stable or equal basis). The symbol † THAT (introducing indirect speech in a noun clause) can be replaced by a punctuational three dots ... or colon, being enough distinguished from direct speech by the absence of quotation marks. If more distinction is needed a composite symbol or : would serve. Taking the example of English where THAT serves also as the relative pronoun, an alternative would be " (=WHO, WHICH) but the latter's logical connection with ditto marks would then be lost.

The definite article is absent in Russian, Latin and Chinese and many cultured tongues. It is sufficiently and logically substituted by THIS/THAT. These demonstrative adjectives I would represent by subscript numbers (see above). The indefinite article is absent in the above languages, French, German etc. The numeral for ONE suffices for this meaning.

p. 323. BERRY (globe) GRAPE (cluster) CUCURBIT (gourd) WATER-MELON (melon) BANANA (banana) PEAR (pear)
LEMON (lemon) ORANGE (orange) MANDARIN (mandarin) GRAPEFRUIT (grapefruit) APPLE (apple) PASSION (passion)
POMEGRANATE (pomegranate) QUINCE (quince) PINEAPPLE (pineapple) (stem fruit: egg + tree symbols) BEAN (bean)
(gland fruit) STRAWBERRY (strawberry) GRAIN (grain) PULSES (pulses) (grain of leaf-
pod) BULB (onion etc.) MONOCOTYLEDON (monocotyledon) DICOTYLEDON (dicotyledon) TRAILING HERB (trailing herb)
(international symbol) TREE (tree) SHRUB (shrub) WOODY VINE (woody vine) or TENDRIL (tendrils)
GRASS (grass) HORN/HAIR/FIN (horn/hair/fin) FIBRE (fibre) WOOL (wool) SHEEP (sheep) SNAKE (snake) REPTILE (reptile)
BRANCH (branch) ROOT (root) SCALE (scale) SLUG (slug) VERTEBRATE FISH (vertebrate fish) SCALED FISH (scaled fish)
SHARK/RAY (scale-less) (shark/ray) SPIN/THREAD/CABLE (spin/thread/cable) or UNGULATE (ungulate) (cloven
hoofed) UNGUICULATE (unguiculate) (horse etc) RODENT (rodent) (or) RAT (rat)
RABBIT (rabbit) (ear) MOUSE (mouse) (lesser sign) ELEPHANT (elephant)
Signs for public beaches:

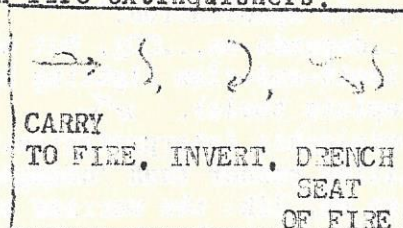
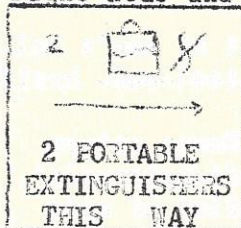
when
SHARK BELL SOUNDS, Bathers EXIT!

  **CAUTION : CURRENTS**

IN EMERGENCY
RAISE HAND
OVER HEAD
WHEN BATHING
TO BRING
BELTMAN

IV. MISCELLANEOUS SUGGESTIONS.

- A. Signs for Australian beaches, readable by 'New Australians': See foot of p20
Signs near and on fire extinguishers:



Signs for radios, TV sets etc.:
OFF ON VOLUME BRIGHTNESS TONE
CONTRAST PLAYBACK RECORD REWIND
TUNING ALARM
(WAVELENGTH)

Similarly for signs for (public) telephones "Listen before calling", etc.

- B. GIVE could be  and GET  (or:  and  respectively) to accord with   rather than the present  .

2. Points of the compass represent the directions of sunrise, sunset, rightside of sun's apparent travel (north) and left side of sun's travel (south) -- thus:            . These are, however, more complex than the existing signs. The usual symbol for orientation on maps is  so perhaps more conventional symbols would be        .

3. Several physiological systems are in the form of a tree. Thus the subdivisions could be depicted as for a tree:

BREATHING TRACT (respiratory passages) TRACHEA BRONCHUS (bronchial tube)
ATRIUM AIR SAC
BRONCHIOLE TERMINAL BRONCHIOLE MAIN BRONCHUS CAVANA
or (heart fluid tree or life fluid tree) BLOOD VESSELS or
(circulating fluid tree). INFERIOR VENA CAVA AORTA ART-
ERY ARTERIOLE TERMINAL ARTERIOLE ARTERIAL TRUNK ARTERIAL
JUNCTION ARTERIAL CAPILLARY CAPILLARY SYSTEMIC VENOUS SYSTEM
PULMONARY CIRCULATION TISSUE FLUID TREE=LYMPHATIC CIRCULA-
TION. This abbreviated symbol for tissue is derived from MICROSCOPIC plus
FABRIC and LIFE (BIOLOGICAL). NERVOUS SYSTEM BRAIN STEM
NEURAXIS=CENTRAL NERVOUS SYSTEM=BRAIN+SPINAL CORD SPINAL CORD NERVE
NERVE ROOT NERVE TRUNK NERVE DIVISION NERVE BRANCH TWIG
NERVE FIBRE NERVE ENDING NERVE PLEXUS

4. MOVEMENT is indicated by $\rightarrow$ but if it is necessary to have a firmer symbol distinct from DIRECTION ... (and distinct from $\rightarrow$ CHEMICAL CHANGE) I would add the WHEEL symbol  (or ) rather than the existing wheel+earth  symbol (MOTION).

5. Some terms from Freudian psychology:

SUBLIMATION is diverting an instinctive emotional drive from its direct environmental object to a socially and morally acceptable activity or partial outlet.

SUPPRESSION (of instinct by conscience):  (of ideal by will power):  etc. The disjointed arrowhead is opposed by the shafted arrowhead which represents the trend expressed. The arrowheads are trends placed in the appropriate segments of the psychic 'schema' and the shaft indicates its connections.

CONDENSATION  (unconscious drives partially emerging into consciousness and/or activity but fused into a masked combination under the influence of socially motivated inhibition or moral influences).

SECONDARY ELABORATION  (differentiation of condensed material into more complex behaviour as part of the masking influence of super-ego).

SENTIMENT (emotional complex directed towards concrete object)  .

V. GENERAL COMMENT.

Bliss symbols, like all codes, including a foreign language learned by translation, force us to reframe our thoughts and question the meanings of our inbred mother tongue. Insofar as it tries to reduce the more abstract, vague and subjective components of thought, the verbal components especially at higher levels of abstraction, to glaring scrutiny and some distinction of levels of abstraction, even by the simplest human observer, the Bliss system should help everyone to think, speak and write more effectively. It aims to provide a tool for 'analysing' in this sense inferior modes of expression, relating them in particular to concrete objects and events on the one hand, and to human evaluations on the other. It "may help to get the 'central' meaning of a word into focus and keep that meaning fixed for the moment of discussion as code, compromise and useful limitation as well as convenient adaptation for those involved in the subject...Scientific thought is increasingly in need of some such control-

lable medium of expression."-- Johann Philip van Leent, M. D. (Leyden), member of Hegelian Society in Europe, d. 1960 at Sydney, N.S.W.

Dr van Leent contests the theory of the origin of war making these points:

- p. 17. "That war is absent in the caves is speculation."
 p. 18. "The relationship of all life...depends on...CO₂. But what of man's volition? War is simply an extension of tooth-and-claw fighting by tool-and-brain" (Note that the Bliss symbol for war depicts tools). ~~XXX~~
 p. 19. "This 'Wild Guess' theory is entelechic interpretation. 'Human nature' has shown her more unwelcome possibilities rather than 'changed disastrously'."
 p. 18. "Homo sapiens is several species or, like the warrior species of ants, has such a delicately balanced social structure that he makes outsiders of those not closely knit with him -- he is more a slave to his categories now within the species whereas primitive creatures have their main categories outside the species." (I believe the warrior ants are actually interspecies, not intra-species fighters. There are a few exceptions to the rule of species-loyalty not mentioned in my paper in this series 'Psycho-semantics, adult emotion & war': stags fighting for a harem may die with antlers locked together from starvation, a male tortoise overturned by his rival may never regain his feet, goats may butt each other over cliffs. Van Leent's point of categories within the species harmonizes with the theories of Brock Chisholm about the deadly nature of human evaluation as explained by Bliss in his paper in this series on 'A possible proof and tool for Chisholm's theory on the nature of human warfare'. This also accords with Korzybski's explanation of semantic illness underlying wars. -- D. N. E.) "The term 'one community' (p. 15) means 'in all categories'. Actually we are in numerous categories."

Dr van Leent also criticizes the ultimate categorizing of Bliss thus:

- p. 17. "Metaphor, simile and definition. Along with these on p. XXVIII and syllogism, meaning, plan, add: significance, interpretation, definition, denotation. 'A symbol stands for denoting and meaning' (p.23.) Actually, meaning is attached by an interpreter of the subject denoted by the symbol. The interpreter integrates the symbol towards its complexity as he sees it, that is autistically."
 p. 11. "Both chemical thing and physical action are human evaluations." (As Bertrand Russell says, truth is what stands the test of experience. Some categories of phenomena are accepted by scientists and simple folk. However, a concrete entity like atom or cow can have limiting cases where all may not agree: a cow's ovum in various stages of cell-division, fertilization, nidation, gestation and parturition; a cow's corpse in various stages of dying and decomposition; two-headed or headless freaks, 'Siamese' twinning, teratomata, freemartins and the blood-group chimeras, and possibly genetic rearrangements like human mongolism. The solution to this dispute would seem to be in the 'multivalued' approach of Korzybski where all concepts, for concrete things or for evaluations, are seen to be different levels, or mixtures of levels, of (symbolic, human) abstraction from reality, from the atomic and subatomic etc. 'events' outside our skins.)

VI. 'SAFO' AND 'FICTO'

Safo is a pasigraphy (world writing system readable in any language or in none) by Prof. Dr Andre Eckhardt, 33 Possenhofenerstr., Starnberg/See, Bavaria, Germany. (First English edition 1955 - Introduction). Interesting parallels to Bliss symbols are apparent in that the author had German as his mother-tongue, stayed 20 years in the far East, found difficulty among war prisoners trying to communicate by gestures, worked for 8 years (1943-51) with his knowledge of about 18 languages to devise a solution, avoiding the "Chinese writing - system, the bond of literature and culture for hundreds of millions of men during 2-3000 years" and published his work in English.

The first 100 or so symbols are also very similar to Bliss's but they are designed for cursive writing rather than typewriting or stencilling -- there is no common basis of simple line components in Safo. The pictograms are on the whole inferior to Bliss's but there are a few items which might be adapted to Bliss symbols with advantage: ⊕ WHEEL seems to me more like the heraldic and army-uniform symbol for engineering than Bliss's ⊗. — BEAM may be useful. There is an arrangement of 3 dots ∴ ART (representing primary colors on a palette, presumably) which might be used in the form ∴ or ∴. Crossed X clubs represent SPORT (reminiscent of Bliss's ✕ WAR, but perhaps ⚽ 'goal play' may be more precise). The division sign means PART. A repeated animal symbol means HERD, leaf repeated FOLIAGE, tree repeated FOREST, mouth repeated KISS, arm repeated UNANIMITY, eye repeated VISION. Augmentative, diminutive and other prefixes, suffixes and parenthetic affixes [] () { } etc. are available, none greatly notable. Articles are omitted in favour of I (for a, an) and THIS symbol (for THE). Affixes are used to indicate part of speech and various other features of words (tense etc.) There are 180 basic symbols, each re-

presented by one or two letters (many of these with diacritic marks) so that one can type a Safo message in coded form if one has a typewriter equipped with the necessary diacritics. There is no attempt at semantic 'analysis' or improvement on the complexities of natural tongues and grammar (beyond the usual simplifications of artificial languages like Esperanto), and in fact the sample of text given (a business letter) is an example of formal pomposity or gobbledygook. The whole aim of the project is to serve as an interlingual writing, and as such its value in clarifying thought is no greater than that of any artificial auxiliary international language, probably. Bliss, by contrast, has succeeded to a large extent in stripping our verbiage to the bones of scientifically meaningful thought, clearly distinguishing the poetic and subjective elements in word and phrase on most occasions. He has helped me to think clearly, speak clearly and help others in my psychiatric practice to analyse their thoughts & words clearly.

Picto is a pasigraphy of 400 ideoglyphs by K.J.A. Janson which I believe to be, in general, inferior to Safo. It uses the construction OF + personal pronoun in place of possessive adjectives, TO + pronoun to replace the indirect object. These are features I command in a logical medium.

Other pasigraphies include numerical languages (Becher 1661, Solbrig 1736, Paic 1859, Bachmaier 1852-68); abstract symbols (Wilkins 1668, Kalmar 1772 with 400 letters, Berger 1779, Maimieux (duodecimal) 1797, Nather (ideographic hieroglyphs) 1805, Renzi (Italo-Franco-English lexicon) 1840, Dr Damm 1876 (100 geometric patters with 40 numbers yielding 4,000 ideoglyphs), Glubokovski 1880, and Baranovski's 40 basic signs with 6 others providing over 4 million combination concept-signs.) Translingua Script (Erich Funke 1956) is based on the Dewey decimal classification, with some 700 common words numbered 1 to 700..., and sub-categories yielding about 3,000 concepts. This seems to have most of the disadvantages of the existing international telegraphy codes. I am indebted for these references to Dr M. Monnerot-Dumaine de l'Institut d'Egypte in his "Précis d'Interlinguistique générale et spéciale" (Librairie Maloine S.A., 27, Rue de l'Eide-de-Médecine, Paris, 1960). I finish with this quotation from his title-page:

"Tout ce qui a été fait de grand dans le monde l'a été au nom d'espérances exagérées" -- Jules Verne. (Every great act in the world has been done in the name of extravagant hopes). I apply this to Bliss symbols as firmly as to any interlinguistic and semantic pioneering.

Dear Douglas,

Sydney 18th October
1963

I just finished reading all the foregoing pages, and I am filled with deep admiration for your thoughts, but also with deep gratitude. It is wonderful for me to know that I can die in peace, because there is a young man - you - who will carry on when I am no more. May you be instrumental in the practical realisation of our dream, and may it not come to pass that a host of various national semantographies will clogg communication across the barriers of language, politics, and religion.

As to your proposals, I would have to write a whole book discussing the merits and demerits of my symbols and your improvements. I wish to say that I approached the problem as the practical engineer, for whom a symbol with 3 strokes is better than one with 4, and who is not interested in shades of meanings which vary anyway in different minds. You, on the other hand, have approached the problem as the scientist, who sees all the pitfalls which I have clumsily created.

You closed your critique with a saying by Verne "Every great act in the world has been done in the name of extravagant hopes." If I translate this into my symbols, I encounter the passive verbform, and the absence of the "agent" who hopes extravagantly. Both these linguistic devices are impermissible in semantography. Instead we should write

I

hope

extravagantly

(Bliss or another linguistic innovator)

(too much, above much)

But the sentence is still incomplete. The symbol for "hope" must be accompanied by the answer to "hopes what?" Do we hope to gain a fortune, or become prime-minister, or the king of the world? Of course not. We all hope extravagantly that the men, who are paid to see that languages are simplified and improved, will take kindly to our ideas, will test them and then introduce them into the schools of the world over which they, and they only, rule. The teachers and professors of all the languages of mankind could introduce Esperanto into their schools tomorrow - if they want it. But they don't ^{want} to improve mankind's most important tool. They are the real obstacles to the progress of humanity in common understanding. They must be fought. Who said this? John Locke 300 years ago. May you become a fighter against these reactionaries. I am always

Your Charles