SuttonGlyphs

Innovations in Visual Language

The Visual Age

We are in the visual language age according to Alan Stillman of Kwikpoint.com. Speaking at VaIL 2007, Mr. Stillman explained that human communication evolves through three phases, or ages:

1. The Spoken Age, from mouth to ear (speaking-hearing).

2. The Written Age, from hand to eye (writing-reading).

3. The Visual Age, ~~from brain to computer screen to eye~~.

from hand to screen to eye.

The visual age is here alright, but it will be driven by the usual inputs from our hands and mouths. Simplify for a moment. All information transmits out of either our mouths as speech, or out of our hands as sign language, texting, or drawing. When we wish to stop transmitting, we put our hands on our mouths, tying up both of the exits of information. Even morse code is sent by hand. And even Tom Cruise in Minority Report moves vast amounts of information around on a virtual screen by wearing data gloves on his hands.
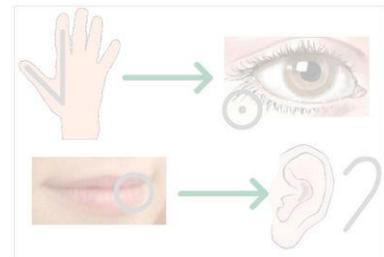
And just as there are two parts of us that transmit, there are two parts that receive, eye and ear. This is not likely to change, ever. While mechanical, even nanotech sensors may send telemetry and data directly to computer hard drives, there would be

little benefit in trying to send it directly to the human hard drive, the brain. The pathways nature gave us for receiving information actually transform it for us, making it useful. They don't just pipe it in.

We are not likely to do better than nature in this regard until we actually create androids like Data on Star Trek. Way, way off in the future. So we can spend billions of dollars in researching new ways to represent knowledge, and much may be gained, but in the end it all comes down to drawing shapes and colors in a little square to make an icon. And the issues won't change one iota: Which **shapes** and which **colors**?

Blissymbolics has led me to an axiom which has yet to fail:
There are no difficult concepts, only difficult explanations of simple concepts. Language is metaphorical by nature. The behaviors of billiard balls inform us about atoms, until we find a better metaphor for atoms or can actually see them. Even then, the same kinds of things happen at that level as happen at the macroscopic level. The flows of streams and rivers inform us about the flows in capillaries until we are able to actually see capillaries in a microscope. Even then, a flow is a flow, whether microscopic or macroscopic:
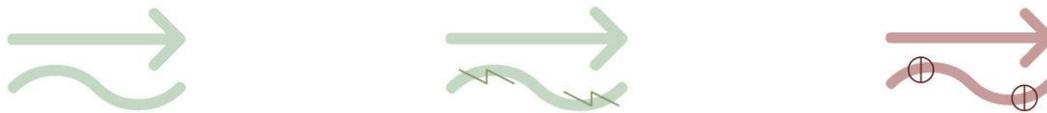
So if we desire to have a universal cross-domain visual language system, a flow should be represented by the same elemental glyphs whether it is a flow of water, blood, electricity, neutrinos or anything else which may behave like a flowing fluid. The environment around the basic glyphs will change. The arrows may curve or point in changing directions. But the same elemental idea (a flow) will always be recognizable across all domains (disciplines of knowledge or work) and languages, and from the smallest microscopic domains to the largest macroscopic ones.

The concept of containers passing through a pipe could be blood cells carrying hemoglobin through a capillary or trucks carrying freight through a tunnel. Modifiers can be added to distinguish between a cell and a truck, or context may sometimes be sufficient to distinguish different applications of the same concept.

Blissymbolics

=

Linear

+

Nonlinear
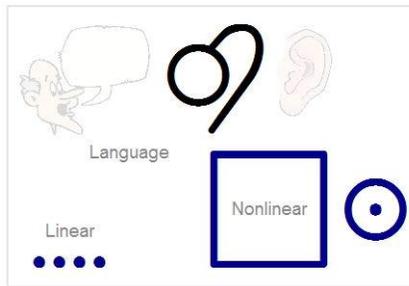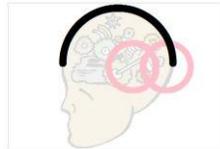
Blissymbolics may be the only language in the world which is able to fully express concepts either linearly or nonlinearly. While Bliss has historically been written in a linear fashion like western alphabetic languages, there are many elements of nonlinear expression in its glyphs. Because of the pictographic nature of most of its glyphs, it could easily develop a fully nonlinear form of linguistic expression, thus integrating the artistic and rational aspects of consciousness, perhaps transcending them both, establishing an integral form of consciousness devoid of the schisms of thought so characteristic of the modern age.
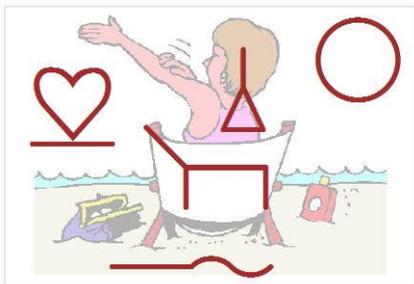
By simply arranging the linguistic elements of the Bliss language onto a natural scene, we can create a glyph array, or "knowledge glyph" as expressive as entire paragraphs of alphabetic text. And the natural looking image behind the glyphs provides all the grammar and syntax information which is usually provided by clumsy connecting words, verbs and modifiers.

Nonlinear: a woman puts on suntan lotion, the bottle of lotion is to her right. She is sitting in a beach chair relaxing with her purse to her left. There are waves on the ocean and she is looking left while applying the lotion.

⚕ ♡ ⌐ ⊤ ○.

Linear: (A) woman relaxes on (a) beach chair on (a) beach under (the) sun.

In english linear writing, the words 'a' and 'the' are unnecessary but the sentence sounds funny without them. In the standard bliss linear sentence, 'a' and 'the' can be left out as meaningless connecting words (glyphs). But the glyphs for 'on' and 'under' are needed in the linear bliss sentence because without them the reader would not know the spacial relationships of the objects of the sentence.

Ironically, even with the extra words, the linear form gives less information about the scene, such as the purse, the waves on the water, the bottle of lotion, the direction the woman is sitting facing the water and the direction she is looking as she applies the lotion.

Also, the linear sentence cannot be reduced significantly in size without becoming unrecognizable. But the nonlinear glyph can be:

Linear as small Icon: unintelligible

Nonlinear as small Icon: Readable

Readable but too large for an Icon

Now, there is no rule which says all the information in the natural image augmentation must be represented in the glyph. The glyph may sometimes just summarize. So in this case the glyphs can be enlarged because they only summarize the natural information, Relaxing on a Beach.

Now let's continue trying to go nonlinear wherever possible and appropriate.

Notice that the tip of the heart resting on ground is near the water glyph just like the person who is relaxing on the beach is near the actual ocean. Plus, the ocean appears blue to us, so why not color the glyph for better recognizability.

Now, an advantage of a more concise glyph is that each glyph element has room to be enlarged. And enlarging the glyph elements relative to the natural image

augmentation means now the entire glyph is reducable to smaller useable sizes for use as an icon:

This last one is only 30 pixels in height!

Another advantage of a concise glyph is that the eye and the mind have less work to do before effectively comprehending messages.

Where no Pen has gone, Before

Two problems have plagued the original Blissymbolics since its inception:
1. The symbols appear very abstract to the uninitiated.
2. Sentences are difficult to format because of indicators above symbols.

And a couple of criticisms have stuck, without sufficient rebuttal:
**1.** Bliss has no native grammar and syntax, it borrows these from natural languages.
2. Bliss has insufficient vocabulary for expressing all that natural languages can.
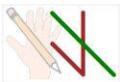
Nonlinear Bliss turns these problems and criticisms on their heads, revealing the opposite to be true.

If you've read some of the pages here at SuttonGlyphs.com, then you know I've chosen to begin displaying a nonlinear form of blissymbolics with glyphs in different colors and sizes, arranged more like diagrams than sentences.

But what you have not yet seen is my unpublished work in this direction. Frankly, I must say, I've knocked my own socks off my own feet. The level and depth of expression with this new approach has gone beyond my wildest dreams. Concepts expressible only obscurely by natural language achieve rich transparency in nonlinear Bliss. The following is not even the tip of the iceberg.
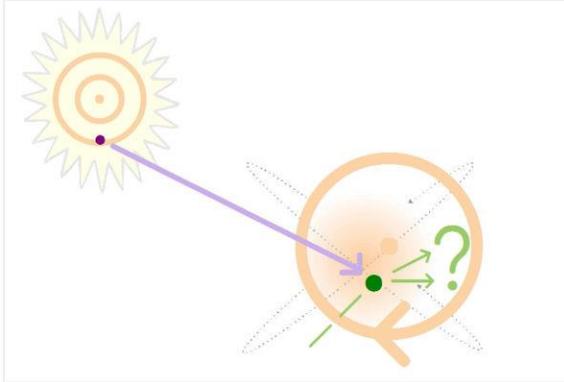
Nonlinear Bliss could express to a 3rd grader something college science students struggle with: the **Heisenberg Uncertainty Principle**. In fact, 20th century popularizers of science so bungled the teaching of this, that popular understanding of physics is now riddled with mysticisms and magical superstitions.

The diagram above, in nonlinear Bliss, shows a particle of light hitting a subatomic particle, diverting it you know not where. This is more than a diagram though, because it is composed of linguistic elements which can be used consistently across all disciplines of knowledge. If only Bliss had been taught to the young who grew up to be popularizers of science, then maybe they wouldn't be writing nonsense to the effect that "if you don't know where a particle is, then it must not actually have a location". Even some science textbooks now teach this nonsense, and millions of dollars are wasted researching absurdities.

It should be obvious to any visual thinker that subatomic reality is not a statistical limbo just waiting for us to look at it so it can become real. The heisenberg uncertainty principle reveals a limitation on our ability to know about the small things in our universe, but it does not say the small things are uncertain by nature.

Natural language has turned Quantum Physics into mysticism for most people because the current written natural languages are now obsolete for the Age we are entering. We have reached a stage in our human evolution where the revelations of science cannot be expressed by natural languages. Nonlinear Bliss makes easy and clear what natural languages make difficult and wordy or even unexpressible.

How many of your friends comprehend Einstein's General Theory of Relativity and could actually discuss whether it might be wrong? A student taught nonlinear Bliss in 1st and 2nd grade could probably engage in this discussion by 5th grade. We are not just talking here about a couple simple diagrams clearing up one or two concepts. Nonlinear Bliss could become a systematically integrated method of

thinking and expressing that would clear the cobwebs out of every science, every brain, perhaps even exploring spiritual concepts in a sensable way.
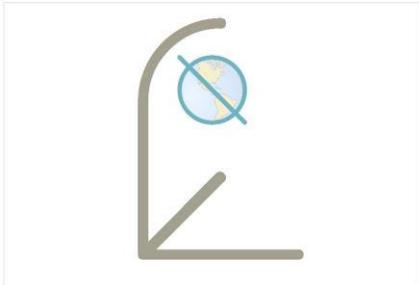
The **Curvature of Space around the Earth** could be introduced to children in very simple terms in nonlinear Blissymbolics. Then they could discuss whether there is actually something physical which is curved or whether this is just geometry in someone's mind.

Now on to politics which can lead real people to war...
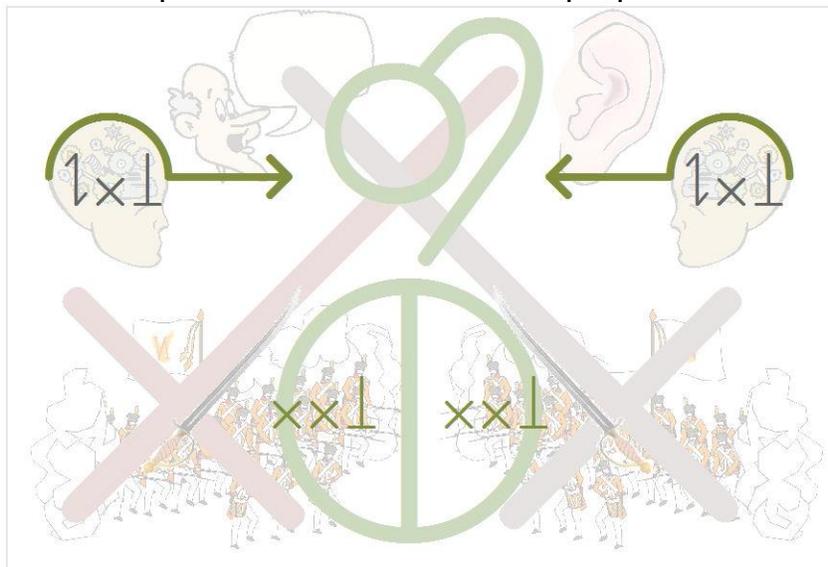
If all people learned Blissymbolics from early childhood, they would be able to diagram the concepts of **war** creatively to be sure they grasp what war really is, and what each proposed war is really about. It is clear in nonlinear Bliss who makes the sacrifices and who does not.

Nonlinear Bliss diagrams like this could also display the geopolitical issues and arguments in concrete visual relationships with each other, showing who the actual winners and losers in the conflict will be.

Hybrid Visual Language System

Any future universal visual language system will need to be the same everywhere and yet also adapt to local custom and culture to avoid offending the natives with images they are not comfortable with. It must also teach itself to anyone of any age, culture or educational level. So it must be the same everywhere and also different everywhere, a paradox. It must resist change to be universal, yet be a "free for all" of innovation to interest real people. Even more of a paradox.
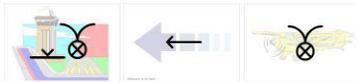
The Solution? Two systems merged into one, where one system teaches the other. Natural images adapted to local custom and culture, human factors tested in each locality, could be augmented by an unchanging, highly integrated system like Blissymbolics. The natural images would introduce and teach the artificial glyphs to users during actual use. During the early phases of the learning curve for each user, the natural images would be carrying the communication burden, with the glyphs taking over this burden as exposure and experience is gained.

One aspect, the natural looking images, would be a very fluid system developed and led by users of the system. Search engine algorithyms would bring the popular images to the top. The other aspect of the system would resist change, but sometimes adapt to stubborn realities by adding or modifying a glyph in the official system of integrated glyphs. The official glyph system would change only by deliberation among experts/authorities. When a natural looking image rises to the top of the search results pile, indicating a possible user consensus about its meaning, or at least where to use it, that image would then be evaluated for stamping with an official glyph, nailing down its meaning officially for the time being.

A system like this could probably only be developed within a large military system where there is plenty of creative, chaotic energy available to fuel innovation, but where also, orders can be given and enforced without a lot of whining. Tampering with the official glyphs could be forbidden to all but the experts. Of course, there could be a lot of authorized experts as we move into the second and third generations of users. In the meantime, everyone could have fun trying to get their natural looking drawings to the top of the search pile for possible stamping with a glyph. Competition and rowdy fun are not unknown in military circles!

It wouldn't hurt, at the appropriate time, to give everyone a two week course in the fundamentals of the glyph system, and an advanced course for users who must be able to rely on the absolute definitions of visual messages which only the official glyphs would provide anywhere on the globe, in any domain and in any international situation. Favorite natural looking images would vary far too much from culture to culture, not to mention barracks to barracks, to ever offer any reliable definitions.

Wave Particle Duality

This visual language system would have, built in, a kind of wave/particle duality where a vast sea of potential (waves, all users of the system) would strive ceaselessly to actualize its visual versions of reality, but where only a relative few would achieve definition as actual particles (stamped by glyphs). The natural images would always be restlessly redefining themselves, a forever changing sea of potential, just like natural languages are today. Natural looking images would get to participate in the top tiers of the system as trusted, reliable reality (particles) only so long as consensus deems them the best match for an official glyph. The glyphs themselves though, would be virtually unchanging, as the laws of the universe change only by deliberation of the gods over aeons.

If a secret stealth aircraft exploded, and it was being discussed in a military chat, the chat system might automatically recommend these three augmented glyphs to visually summarize and enhance that part of the chat stream, making it quicker and easier to find this topic in the midst of many other conversations in the stream. Since these types of glyphs would likely only summarize and enhance the text message for the forseeable future, probably several generations at least, no grammar and syntax with verb tenses and such need be considered for now. In the meantime, familiarity with the glyphs will be accumulating in the personel, and the glyphs will not only become iconic for the specific cases where they are used, but the combinatorial logic of the glyph elements will begin to dawn in the minds of users.

Commonly used sequences of glyphs like those above could be integrated into single nonlinear glyphs which explain themselves better and interpret faster in the minds of users. The violet glyph in the upper left corner which means secret, is that color to indicate top secret. One level below top secret, merely secret, could be blue. And a further level down, confidential, could be green. You may notice I'm following the natural light spectrum. But who am I? Nobody. I'm sure those folks at the top have already long since worked out their protocols. These glyph suggestions are merely to show some of the potential of the Blissymbolics system. There are many aspects of these compound augmented glyphs that can be modified without damaging the integrity of the Bliss system. Just don't mess with the basic, geometrical shapes and their semantic assignments without carefully considering how this could weaken the integrity of the system as a whole. A soldier, with basic knowledge of the glyph system, coming across a new compound glyph he has never seen before, should be able to decypher it from its elemental parts even without the natural image augmentation. Still, better to augment, and allow easy lookup of explanations of glyphs.

World Writing

The system would function immediately everywhere, even for those who've never seen the images of this hybrid system. As generations pass, increasing numbers of people from all nations would increasingly understand the glyphs independent of the natural images. And they would innovate, leading us to the grammar and syntax of this new communication system. The natural images would continue to be used because there will always be people who haven't learned the system, there is always a new generation of children growing up, and because the glyphs look more appealing with the natural augmentation.

Now, if this same system, though lacking some of the military visabulary, were being promoted or even taught in the civilian sector, the military planners could anticipate that the next generations coming into military service would be ready to benefit to a far greater degree from the visual language enhancements. Perhaps then, the services could move toward more than enhancement. Perhaps the full

content of messages could be delivered more concisely and reliably than with text? This is the big question.

Pretend for a moment that a visual language system is actually being deployed around the world, and that the system, by international agreements, is being implemented in ATMs, automated cashier systems, and in many government publications.

Now imagine a shopkeeper in Thailand, noticing that a lot of his customers are tourists, wants them to be able to read the displays in his shop and printed in his advertisements. He has an automated cashier system for his customers who want to use it, so he would like his ads and price labels to look the same as the images on the auto-cashier screen. Also, the state website provides an excellent online system for customizing and printing his labels, ads and signs, plus tax breaks for businesses who use them.

So he puts labels like this in his shop and in his printed advertisements:

 $.29 $120 $50

Look around! This is already happening on every McDonald's menu above and behind the cashiers. The only difference is that they use only natural images of hamburgers with no potential for beginning the evolution towards an international visual language. All it would take is a tax break to get McDonalds to augment the natural looking hamburger images with the appropriate glyphs. And if they distort or stylize the glyphs, harming the integrity of the new international communication system, no tax break. Commercial vendors would be free to stylize the natural image augmentations, but not the international glyphs.

Now fast forward a few generations into the future. Children, having grown up seeing these images with glyphs, are now using the glyphs in all kinds of crazy ways among their friends, on websites, in chatrooms, texting on cellphones, and even innovating visual language grammar and syntax in video games. They do this already in video games so only players on their team understand them. Chaos will always be at the frontier of any system. But the natural image augmentation can provide guidance leading to continuing refinement of this language attempting to be born. Blissymbolics was stillborn, but it may yet have a vital role to play.

During these next few generations, a library of augmented glyph images will be accumulating, available for computer chat software to recommend whenever chat messages are parsed a certain way. And data will be collected about how users choose to arrange the glyphs and what text messages they tend to associate them with. The users will show us the way to visual language grammar and syntax.

Here at SuttonGlyphs.com and also Blissymbolics.us, I've settled on a standard shape for the images, roughly the shape of a wide screen monitor, and chosen 85 pixels for the standard height when stringing them in a line like a sentence. And when clicked they enlarge to a height of about 303 pixels. The larger size added to PDF files, prints each augmented glyph about the size of a playing card.

All true cultures have their games to inculcate (teach and impress by frequent repetitions or admonitions) the medium and the message into the minds and hearts.

The nice thing is, the augmented cards are rather cool looking. Could they ever catch on?

I have a large deck of these glyph cards on my desk, each card is unique. As I wrote this I stopped right here,,, shuffled the cards well, and dealt myself three cards. Here they are:

Not bad, 2 matches: "Apple Computer". But this match deserves no points in our card game, perhaps even a penalty for laying these cards down. Players love to penalize each other!

One of the benefits of visual language is that it tends to test ideas relative to physical reality. "Apple" is just a meaningless name in this case, except of course it might refer to a mythical apple in paradise which symbolizes fruit from the tree of knowledge. Computers store and process knowledge. But this match does not pass the physical reality test: Computers are not constructed from apples, and apples cannot in any way describe a certain kind of computer in any literal, physical way. I suppose if an owner of an apple orchard used a computer in his business he might call it his "apple computer" as a private joke, but we cannot afford to allow private jokes to work their way into what is supposed to become a universal visual language system.

Card sequences considered to be true sentences or phrases (a unified idea involving all the selected glyphs) qualifying for points in a card game, and card matches which involve a penalty could be listed at a website where gamers could send in card sequences for official approval. Or gamers could negotiate with each other to settle arguments.

Can Blissymbolics be useful in Military Chat?
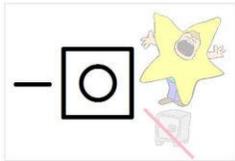
Notice the circle in a box as part of the glyph on the left? It means secret. The circle means speech so the glyph indicates speech in a closed box. The full glyph including the negative sign means 'not secret'. The augmentation from the cartoon image makes intuitive and obvious the meaning of the glyph. It also makes it more colorful and fun. If this were a chatroom, you could get the sense of this entire paragraph just from the augmented glyph. And later, browsing the chat archive would be a breeze because you could get essential recall just by scanning the pictures with glyphs. And of course, you could find the chat messages you're looking for in a snap.
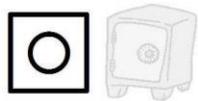
This glyph which means secret, is augmented with the image of a safe to help teach the meaning of the glyph.

I'm promoting Blissymbolics because I don't believe a more integrated visual language system can ever be designed. The uninitiated believe the Bliss glyphs to be cryptic, but that is only because they are so streamlined, composed of the simplest possible geometric shapes and lines. If you stylize them, you add clutter. If you change a glyph in one situation to make it more recognizable, you weaken the integrity of that glyph in the rest of the system. I challenge anyone to surpass the elegant simplicity of Blissymbolics. Yes, some ideas can be expressed less

cryptically if drawn more like comic figures, but then you have no system, just a lot of drawings.

Surely any integrated system must draw meaning from semantic primitives. The primitives must be simple shapes or they cannot combine with each other in a nonlinear fashion without becoming complicated monstrosities. And if you cannot combine them into nonlinear patterns, how do you create icons? The semantic primitive approach is unescapable. Otherwise you are right back to an unintegrated pile of icons.

The University of New Mexico is currently researching visual language, including Blissymbolics, with an interest in augmenting military chat. They hope to standardize across the domains of military service and across international language barriers. I've never served in the military, so I may come across as a little naiive at times, but I hope to show off what Blissymbolics can offer for expressing military ideas. I have no doubt the military will implement some kind of visual language system in the years ahead. I hope it is a good one because someday it may trickle down to civilian life and the benefits could be amazing and indeed refreshing. Their goal is efficient, intuitive, unambiguous communication. That can only help this planet.
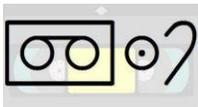
I finally viewed the VaIL video, a month after the conference. It's been a busy summer for me with the Blissymbolics think-tank and also new projects at Symbols.Net and Blissymbolics.us. But it's been extremely rewarding and synergistic.
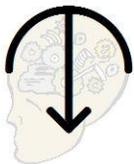
In fact, VaIL following so closely after the think-tank triggered ideas in me which have led to the beginnings of 3 new projects related to both endeavors including the beginning conceptualizations for a computer application which could revolutionize the composing of visual language glyphs and messages.

I believe that for Blissymbolics to be of benefit to military chat, Bliss must break free of the linear rut it's been in since inception. The Bliss glyphs need to be

composed more like real diagrams or natural scenes. This means arranging them into these natural scenes by resizing them and coloring them appropriately.

When Blissymbolics first arrived on the scene, it tended to imitate linear language, trying to replace every word in a document. A linear Bliss sentence would replace a linear english sentence. But my experience with Bliss is revealing that a single nonlinear Bliss-knowledge-glyph could replace or augment a paragraph of text, not just one word. A glyph can be worth several sentences.

 Blissymbolics, through its inventor, Charles Kaisel Bliss, established a wonderfully transparent (to those who use it), set of glyphs which integrate together with each other systematically and seemlessly according to a well defined set of principles to generate complex meanings. However, the full potential of his system has yet to emerge. The Language has been stunted in its use and development by technological hurdles which must be overcome before Bliss glyphs can effortlessly fly off a user's keyboard into cyberspace.

 Bliss has long needed a dream Input Method that can unleash glyph writers' freedom to innovate, while also stabilizing and refining the visual language as it freely evolves. I believe now I have that dream Input Method sufficiently conceptualized to begin rolling out the details here at SuttonGlyphs.com. But I am not a software engineer, and the features I have in mind are well beyond my simple JavaScripting abilities.

The new application would be able to output the perfectly standardized original Blissymbolics faster than we can type equivalent english, but also, by checking a preference checkbox near the top-right of the screen, the user would be able to choose nonlinear Bliss which is what I am beginning to display here at SuttonGlyphs.com. This new software will be so powerfully flexible in expressing visual information that every user could have their own style of glyphs, yet the software will help guide the user to continually refine and clarify the visual language. I know this sounds like a paradox, and it was.

SuttonGlyphs is my attempt to morph Bliss into a dynamic, flexible and powerful tool for augmenting text. But this is just a beginning. There is no limit to how the original semantic primitives of Blissymbolics can be arranged into nonlinear patterns. And the graphic primitives of the original Blissymbolics, if expanded only slightly would be able to generate any new semantic primitives that might be needed and could also improvise all manner of diagrams of surprising detail and complexity. All these primitives, both graphic and semantic, could be derived from a small set of SVG definitions.

In standard bliss, we add english to the end of some symbols to add more information. If english, why not chinese? And if chinese, why not use astrological glyphs with bliss glyphs when identifying star constellations?
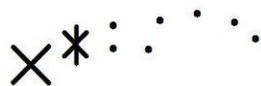
And if that's okay, why not arrange standard bliss dots in the shape of star constellations and add that to the end of bliss glyphs for 'group of stars'. And of course, why not augment each glyph as soon as we find or create a matching image? Picture a soft blue sky displaying the actual dipper. What a perfect balance to the initially cryptic looking glyphs.
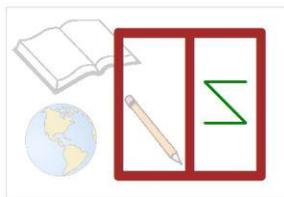
Charles Bliss' original vision was a flexible, developing visual language, not one frozen in time as it has been now for 60 years. In the beginning he seemed to trust that Bliss writers could compose glyphs themselves from the elemental, small parts available in his system. But then exaggerated fears of chaos creeping into his language seemed to lead to naiive attempts to control spelling by copyright enforcement. But how can you copyright a language without killing it?

Charles didn't seem to realize as we do today, that verbal languages are inherently unstable but written and visual languages are not. As long as the respective written or visual language has had its gutenberg moment, stability is assured and creativity

can be unleashed. That moment is now on the horizon for Bliss. We should all feel free to play with the language to our hearts content! There is no support in law for perpetual copyrights anyway. And there is nothing you can do to harm the language. The software will protect and nourish it even in conditions of complete freedom of use.

So in that spirit, let's have some fun:
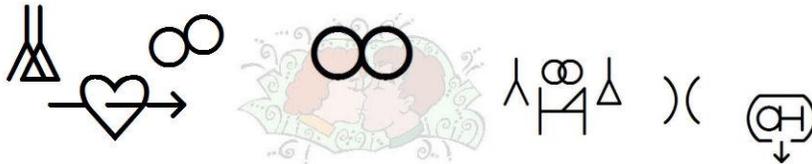
Well, let's not have that much fun ;-)

Basically, the strategy for creating these glyph patterns is to lay the glyphs out in a pattern resembling the appearance of real life situations.

Glyph patterns augmented by natural images can serve two purposes at once:
1. Convey the meaning intended across linguistic barriers, and
2. Teach the glyphs of the visual language system.

Notwithstanding my remarks above about how a nonlinear bliss-knowledge-glyph could replace (augment) a paragraph of text, some messages are inherently linear and straight to the point:
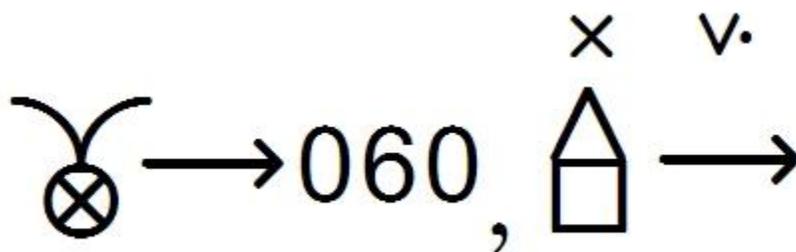
AIRCRAFT HEADING 060, ROCKETS FIRED.

By writing this message in CAPS text and linear glyphs, both lines read precisely together, word for glyph, glyph for word. Sometimes we don't want pretty pictures, although we could announce such emergency messages with an attention getting glyph:
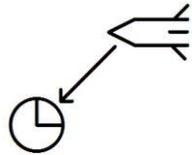
ROCKET INBOUND FROM YOUR 1 O'CLOCK

Now on to a discussion of what nonlinear representations can do for us.....

Linear Glyphs   vs   Nonlinear
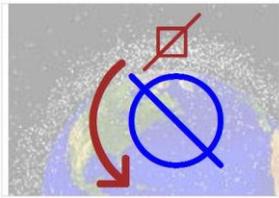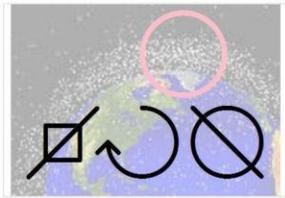
The augmented glyph on the left above was composed using the standard bliss method of combining elemental ideas: **waste** + **circling** + **earth**.

But these ideas, being strung out in a line need assembling in the mind of the reader. A bliss reader knows that the first glyph on the left is the thing itself and that the remaining glyphs are modifiers adding more information. But the uninitiated reader would be clueless as to how to assemble the meanings of the glyphs into a picture of what is going on here.

So why not assemble them!

The advantages are:
1. The nonlinear glyph on the right above explains itself with the help of the natural image augmentation.
2. The nonlinear glyph can be larger in its rectangle because it is not strung out in a line, so it reduces to a smaller, recognizable icon for use in a chatroom:

A lot of space junk orbits the earth!

Even though the natural image augmentation is not recognizable in the small icon, the glyph is. The glyph could enlarge in a chatroom when clicked or hovered over, depending on preference. The small size when not hovering for enlargement could help ween the user of dependence on the natural image augmentation, thus teaching the knowledge glyph system during use.

Now let's compare a sequence of augmented glyphs strung in a line like a sentence with the same message arranged in a nonlinear array of glyphs, really, just a diagram or map.
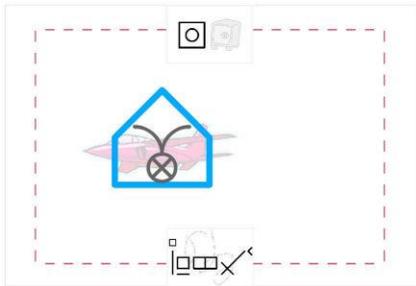
Take a few moments to study over the linear sequence of glyphs, and after you have an interpretation in mind, study over the same message in the nonlinear diagram.

Can you see that the diagram provides the information usually given by grammar, syntax and connecting words like over, around, on, in and under?

The diagram shows that a barbed wire fence surrounds a secret space. And it displays a military aircraft in a building inside the secret space. A fenced in secret military hangar.

Now, the diagram is 303 pixels in height because it has not been optimized for creating smaller icons, as you see here:

We can identify the hangar glyph but not the red jet image, but that's okay, it can challenge the chatroom user to remember the glyph without help from the natural image before clicking to enlarge if needed.

You may prefer the glyphs for "secret" and "barbed wire" remain difficult to see in the smaller image. But if you want all the glyphs intelligible before enlarging, no problem:
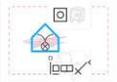
Can we agree here that Blissymbolics does not need to remain exclusively a rigid linear language, and that the potential of Blissymbolics is undiscovered at this time? Let's try and discover this potential.

Some Military Glyphs

The following glyphs in the left column were lifted from the Fort Sill website for comparing to Blissymbolics methods for displaying the same information, but with an important benefit: standardization across all domains. A glyph designer in any department of the military, using these methods, could work independently designing glyphs for their department, and if they remain true to the Bliss assignment of meaning to each elemental glyph, cross-domain/department conficts would be exceedingly rare. There is very little glyph polysemy in the language, and we should strive to keep it that way.

NOTE: The graphic surrounds the area to be secured.
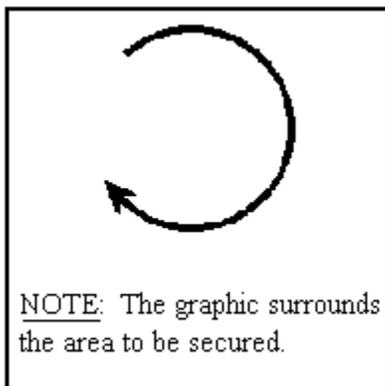
The Fort Sill glyph on the left is nearly identical to the Bliss glyph on the right. But the Bliss glyph means simply: "to surround or encircle", with no indication at this point that the area is necessarily to be "secured". In nonlinear Blissymbolics, "surround and secure" would be indicated as below with "secure" defined by the container (bowl, vessel) glyph ∪and the protection (roof) glyph ∧as "contain and protect":
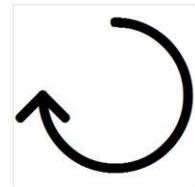
So this entire composite Bliss glyph means "surround, contain and protect", or simply surround and secure. A civilian would probably just say "keep safe".

To simply indicate "surround and contain" use this glyph which lacks the protection ∧glyph element. The beauty of using an elemental approach to visual language is the ability to make small modifications to meaning by modifying one elemental part of an overall glyph instead of going back to the drawing board all the time.

In the Fort Sill glyphs, "surround" seems to apply to surrounding an area of a map with a glyph, not surrounding actual territory prior to securing or containing, etc, but it could imply both.

NOTE: The graphic surrounds the enemy force to be contained.
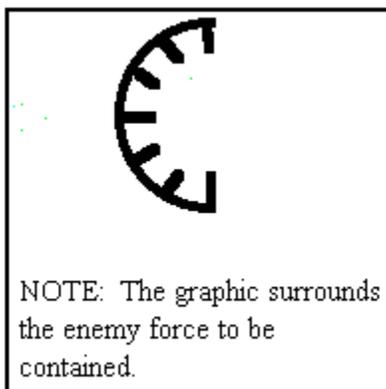
To "surround and contain opposition" forces simply add the glyph for opposition ≪which is derived from one of the two relation ‹glyph elements in Bliss. In my opinion, the Fort Sill glyph on the left breaks consistency with similar meaning glyphs, yielding a less standardized, integrated glyph system, and weakens potential for having a universal cross-domain system.
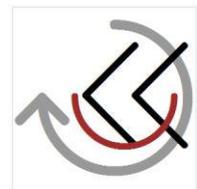
But the Fort Sill glyph is not entirely inconsistent with Bliss, since its basic form is the container ∪ glyph from Bliss, just turned on its side. So if the Fort Sill glyph cannot be dispensed with because of some way in which it integrates or is used somewhere, it could be added to a Bliss/Military system without weakening the semantic assigments of the overall system of elemental glyphs. No polysemy would be added to the system.

Since the Fort Sill glyphs are apparently intended to actually surround areas on a map, the Bliss glyphs above (which are optimized to be reducable to icon size) could be modified to empty the inner space of each glyph, allowing other map information to come through:
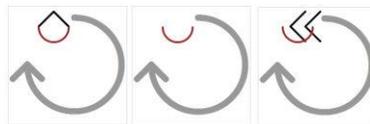
Also, lines could be thinned, and on electronic displays, the glyphs could be semi-transparent if desired. They could even go very transparent when hovering to allow for seeing all map detail under a glyph. On low tech paper maps or devices, thinning lines would suffice.

NOTE: The graphic surrounds the area to be retained.
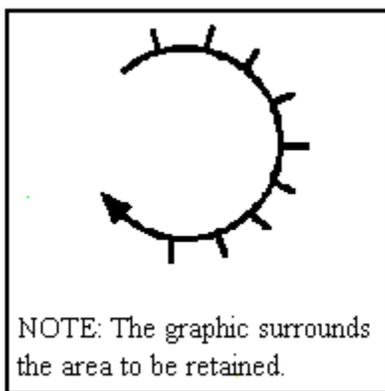
The glyph on the left indicates an area to be retained, apparently, kept. The Bliss glyph on the right expresses this meaning by containing ∪ into the future (.
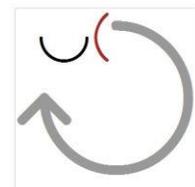
One of the benefits of simply adopting the Bliss system is that when improvising new glyphs or icons, you would only need significant cross domain research when you're thinking of breaking the elemental rules of the system for a certain glyph. Follow the rules and the glyphs can nearly always cross domains without conflict.


NOTE: The graphic surrounds the area to be isolated.
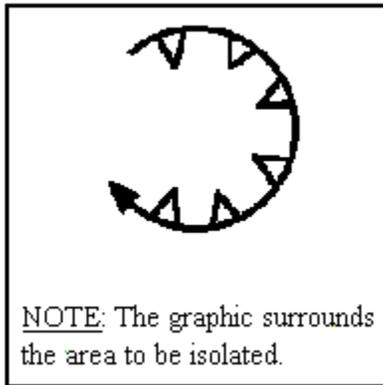
The "isolate" glyph on the left is probably fairly intuitive, and also consistent with Bliss, if the meaning is intended to imply an aggressive stance or activity towards those in that area so they can't interact with anyone or anything outside the area (thus effectively isolating them). The sharp points, like arrowheads or nose cones of a rocket, strongly imply attacking. In Bliss, the divide ÷glyph can be adapted (as on the right) to clearly imply only the meaning of "isolating" without the aggressive implication. The area to be isolated could be a civilian area.
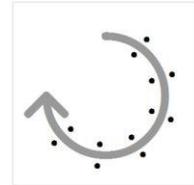
The protection glyph could be added to the isolate glyph when isolating for protection an area of non-combatants, as below.

NOTE: The graphic surrounds the area to be occupied.
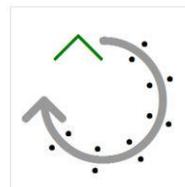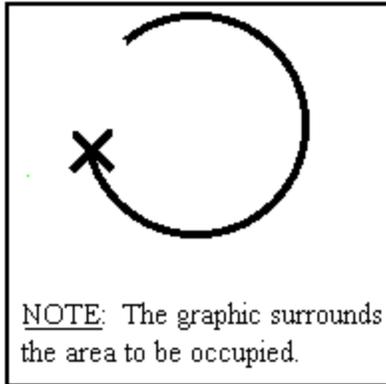
How does an "x" imply occupation? "X" marks the spot?
But marks it for what? On a Fort Sill glyph further down this page, x means to destroy, fairly intuitive. But here it is either meaningless or confusing, probably taken out of thin air, adhoc. To occupy implies dwelling there, at least temporarily, so the Bliss glyph on the right communicates this with a "floorless" building ⌒, a temporary shelter. Normally, the glyph for building △has a floor.

NOTE: The graphic surrounds the area of cannalization
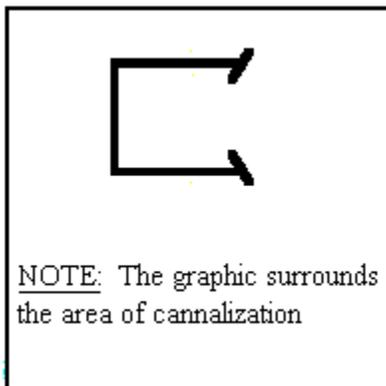
The (Fort Sill) canalization glyph on the left could be modified just a little to create a Bliss glyph which would be at least partially understood by someone from a completely unrelated military service or department, if a Bliss/Military glyph system were in use. The glyph on the right starts with the basic shape on the left, then substitutes the water glyph on the bottom, and the "lead or control" glyph on the top. Any fairly experienced Bliss user would immediately know the glyph is something about controlling (leading) water. And the specialists would learn the precise meaning just as they must anyway, but learning and remembering it would be easier in an integrated, elemental system.
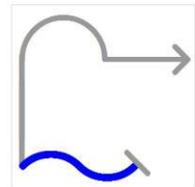
If desired, the canalization glyph on the left could be drawn with standard Bliss software and easily be adopted as a Bliss outline drawing because it happens to be composable (unintentionally) from standard Bliss graphic elements. In fact, my planned Bliss software would include 20 or 30 additional graphic elements so that any outline drawing and any diagram from virtually any visual language will be easily composable within the software. The additional elements will still have the geometric "feel" of the originals so they won't look out of place, they won't alter the simple geometric appearance of the Bliss system. But theoretically, the software could be used to create new and different visual languages unrelated to Bliss.

I suppose the glyph on the left is meant to imply "encircling" the area it points to, which would mean the seizing (taking) of the area, but in Bliss it would mean "talking down" and is very similar to "spitting". In an integrated elemental system, this should be cleared up. The Bliss glyph on the right means "to take" and conveniently, it also has an arrow which can be pointed to areas on a map. A Bliss user of average experience would recognize this meaning immediately. An arrow ⟶ pointing away from a bowl ⌣ means

NOTE: The arrow points at the area/point to be seized.
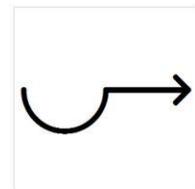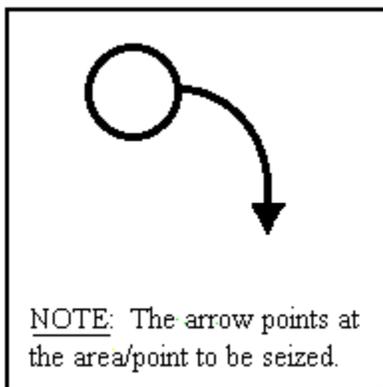
"removing from the other guy's bowl", to take.

NOTE: The graphic is placed over the enemy unit to be destroyed.

NOTE: The graphic is placed over the enemy unit to be neutralized.
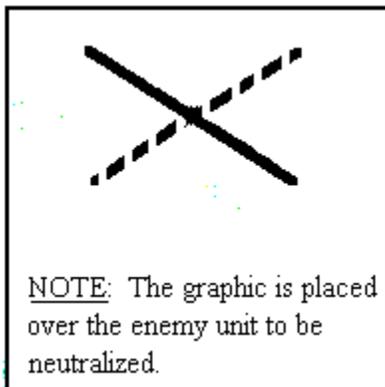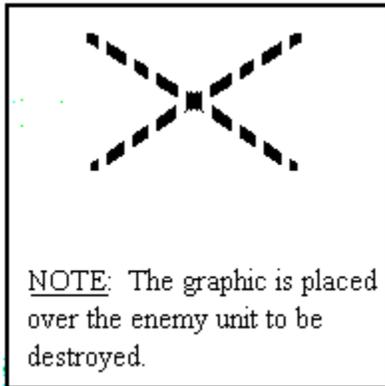

Air Traffic Control Glyphs

I know the Air Traffic System and modern aircraft come well equipped and don't need these particular glyphs, but this page helps show that Bliss can be very adaptable to different areas of life.


Air Traffic Control

 FL 230
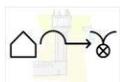
LEAR 35T, DESCEND AND MAINTAIN FLIGHT LEVEL 230
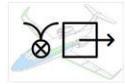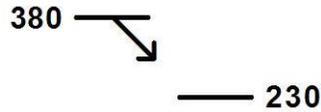
Lear 35T   **380** ⌍↘   Out of 380 for 230, Lear 35 Tango

─── **230**
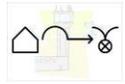
Air Traffic Control   **7** ◷   LEAR 35 TANGO, TRAFFIC 11 O'CLOCK, 7 MILES
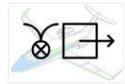
Lear 35T   35 Tango's Looking

Now, of course these glyphs won't be coming to a radar screen near you anytime soon. And we wouldn't want air traffic controllers looking in a chatroom with glyphs instead of looking at their radar screens or through the large glass windows of the local control tower itself. So what use might glyphs like these be someday if a visual language system were coming into use?

Icons might be helpful in teletype transcripts of ATC communications, for auditing live or later. In actual use of course, the icons would be smaller than above with an option to enlarge them by mouse hovering or clicking:

ATC   **290** ←   LEAR 35T, TURN LEFT HEADING 290, VECTORS FOR A VISUAL APPROACH RUNWAY 25.
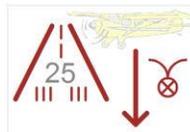
ATC   **25** ↓   LEAR 35T, TRAFFIC IS A CESSNA 172 ON A RIGHT DOWNWIND FOR RUNWAY 25.

Lear 35T

Left 290 and we'll be looking for the cessna.

Lear 35T

Lear 35T has the airport in sight, where's that cessna now?

ATC
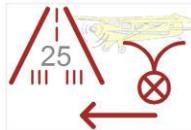
LEAR 35T, THE CESSNA IS ON A RIGHT BASE ABOUT TO TURN FINAL.


Lear 35T

We still don't see him.

ATC

35T, HE'S OVER THE THRESHOLD NOW.


Bunker and Targeting Glyphs
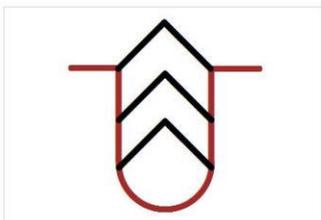
This page is intended to begin showing the untapped potential of the original blissymbolics glyphs for adaptation to DoD needs. In

blissymbolics, the glyph for roof: ∧ expresses the idea of "protection" generally. Obviously a bunker is a protected area. Actually, a very protected area, so I've used this protection glyph 3 times to show this meaning.

Blissymbolics can truly simplify the expression of ideas. A bunker is simply, a deep hole in the ground that is very protected against penetration, so by vertically stretching the bliss glyph for hole: ⌣ and superimposing the roof glyphs, we get the large glyph on the right, which means simply, a very, very protected hole. This glyph could be typed with my proposed bliss software by tapping only two keys on a standard keyboard.

And of course it could simply be offered as an augmentation to a military chat message when a user types the word bunker in a message and presses enter. This is the technique Sunny's people are testing in the prototype chat software.

The green dot added to the glyph versions below is a standard bliss technique for refering to specific parts of an object or idea. In this case, different levels or areas of the bunker. These glyphs could be used after a strike against a bunker, to indicate which areas may have been successfully penetrated by the strike, or which areas are believed to have been left intact. Of course, I may sound a little naiive here, never having been in the military. My experience is strictly civilian as an ex airline transport pilot, which is why I can get the air traffic control procedures down on paper accurately. More accurate knowledge of bunkers might lead to a better glyph. Bliss is very adaptable, there is more than one way to display an idea iconically, even in a disciplined, controlled system like blissymbolics.

This glyph points to and identifies the area above ground around the bunker.

This glyph refers to the space in the bunker one level below ground, one layer of protection deep. Again, I am not military, and so don't actually know how bunkers are designed. If the design is different from this, the glyph might look different. Then again, it might not because these are ideographs, not pictographs.
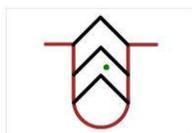
This glyph identifies the area two levels deep.
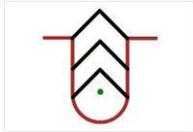
This one, three levels deep.
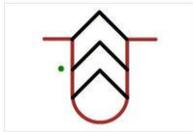
This one identifies the underground earth just outside the outer wall. The dot (as used here), or an arrow head, can be placed anywhere on a glyph to specifically identify a part of an object or concept.

Now let's try adding more information, identifying what the bunker is used for. The glyph for mind: ⌒ is derived from the curved top of a human cranium. An arrow pointing to the right: ⟶ means forward, or motion forward. To move a mind forward is to lead. So the glyph on the right means a bunker used for leading, a command bunker.
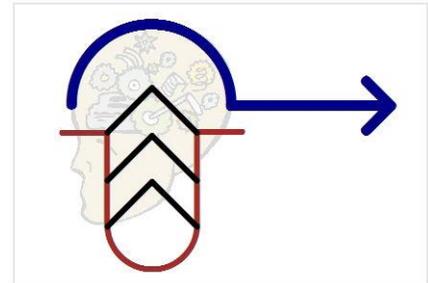
Now let's see what an enhanced military chat with glyphs and images augmenting the text of the messages might look like:
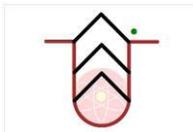
Some intelligence reports suggest bunker BU349 may be concealing nuclear research activity. Do you have any information or opinion on this?
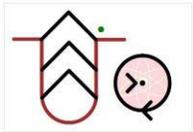
I see a report here strongly suggesting the likelyhood.

Perhaps it should go on an active target list?

I would suggest the inactive target list with a tag recommending re-evaluation before the strikes begin.

Or perhaps to be on the safe side, the potential target list, the inactive list is too easy to get bumped up to active. We don't even know for sure yet if this is a bunker of any kind.

Now again, I am not military, so I don't know what these conversations actually sound like. But I wanted to make a couple points about possibilities for augmenting glyphs in a way to reduce the likelihood of tragic errors in communication. The active target glyph has red arms reaching out, just begging to get hit. The inactive target glyph pulls those arms in AND changes color. Two eye catching methods to distinguish between glyphs whose misinterpretation could lead to the deaths of the wrong people and facilites. Change of shape and color.
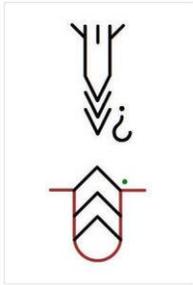
Now when it's time to discuss busting a bunker, we can come up with Bliss glyphs for that too. Notice the triple nose cones on the rocket indicating penetrating power matching the bunker's protection.

Proposed Bliss Software Application

You may ask, how will we ever be able to quickly and easily select from thousands of glyphs with only a regular keyboard? The answer is to go back to the original method Charles Bliss used on the IBM ball typewriter, with a small set of primitive glyph elements, one assigned to each key on a standard keyboard, but with a twist: With a mechanical typewriter, he could only get about 2 or 3 mechanical up-down orientations of a glyph for each key. Today, a software application can give us as many glyphs as we want under each key and in any orientation we wish.

$$\perp \rightarrow \lambda \rightarrow \Delta \rightarrow L \rightarrow \geq \rightarrow /$$

Some keys may have 10 or more symbol elements programmed into them. For example, press 'Y' once and you get the symbol for 'person'. Press it again and it changes 'person' to 'man'. Press it again and it changes 'man' to 'woman'. Again and it changes 'woman' to 'body-standing', etc....... All different configurations of the glyphs for 'person'. It works just like texting on your cellphone. And just like texting, it gets quite easy as you begin to know how many times to count on which keys as you quickly tap the key that has the glyph element you want.

To summarize, as you keep pressing the same key, it cycles through all the glyphs under that key, and then starts over. So in the beginning you may just keep pressing a key till you see the glyph you want. Then press another key till you see the glyph you want. After time, you will remember how many presses are needed for commonly used glyphs, and you just press that key quickly the correct number of times. Just like texting. Seems hard at first, but gets very easy.

To type the symbol for 'language', press 'o' once and '2' once. That's it! I'm planning a little keyboard memory trick here to help you remember the keys. The 'o' looks like the 'mouth' glyph, and the '2' looks a little like the ear glyph.

To type the symbol for 'day', press 'O' once and 'underscore' once. That's all! Again the keyboard memory trick. The capital 'O' resembles the 'sun' glyph, and the 'underscore' is a horizontal line like the 'earth' glyph.

To type the symbol for 'flower', press 'o' twice and 'i' once. Again the memory trick: the 'i' is basically a short vertical line like the stem on the flower. Watch for more of these resemblances between keyboard letters and the glyphs under those keys. I plan as much of this memory assistance as possible.

As for the indicators over some symbols, just press the spacebar and it puts them in for you. Just like the other keys, press it again to get different indicators.

There is a full suite of other great features planned for this Bliss software. I am not a software engineer, so this project will have to wait for volunteers or funding. Soon, I will update this page with the suggested other features. If you have the technical skills needed, feel free to take the ideas and run with them.