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The Ex-Exposition Boulevard Exposé

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20-YEAR STAY IN SAME PLACE COMES TO END

Our slightly-changed masthead may give rise to some questions. Why "Ex"? Why so long since the last issue?

Frankly, we have been in a state of extreme uncertainty and insecurity. It started back around Thanksgiving in November 1965, when a group of City building inspectors demanded to go through our home at 1280 Exposition Blvd.

They searched, probed, investigated, and scrutinized from cellar to attic, and after months of suspense, submitted a formidable, fantastic document in February, full of unbelievable demands and allegations. If the house had really been THAT bad, how come it had gone uninspected for twenty years? How come we ever were allowed to move into it in the first place?

Many hundreds of homes in Los Angeles have been given the same treatment, we have been told. All you have to do is go down any Los Angeles street of any length and see how many buildings are being demolished--this can be an appalling experience when one realizes how many homes are being destroyed, whatever the motive or the rationalization.

Fortunately, there is an agency that relocates displaced persons in cases of this kind, but they were not notified nor given any opportunity to help till after a several months' spell of anxiety.

No place to go! Well, it's a long story, about which more some other time. Meanwhile, requests that we get out another issue have piled up, and this is the first opportunity. A friend suggested that this issue be called the "EX",

(Continued on next page)

Will Op Oust Pop?

Have you ever gazed out a window, through a Venetian blind, at the sun's dazzling glare outside? Have you ever gazed out the window through a Venetian blind, while a troop of zebras were passing? Have you been examined by the optometrist for astigmatism, and watched the room (and your tummy!) do the Twist?

All these and other thrills can be yours. Just go through an Optical Art exhibit.

Art and science have entered into a strange alliance. Indeed, they were never divorced, numerous rumors to the contrary notwithstanding.

The "cold, heartless, dispassionate, unfeeling scientist" is a libellous image that doesn't occur very much in real life. Our own investigations into the field of creativity sufficed to discover, what many others have discovered later, that artistic and scientific creativity have a great deal in common.

Nowhere is this more strikingly evident than in the typical Op Art studio! One magazine reported a group of artists who affected the laboratory atmosphere, all precision and hard edges, rather than the fuzzy vagueness of a bygone century's studio life.

True, the sharp edges and straight lines of Op do not occur in Nature's landscapes—but they do occur in natural crystal forms, and they are ubiquitous in our contemporary environment--it would be absurd to criticize them as "alien".

Last Autumn, just too late to get into our previous issue, the editor was taken to the distant Pasadena Art Museum to see The Responsive Eye, *a traveling exhibit of optical art from many different countries. "Traveling" exhibit indeed! ~~ None of the paintings or objects would hold still. They rippled and swayed; they zigged and zagged; they leapt out at you or sometimes jumped at each other.*

Admittedly, some of the artists were of

(Continued on Page 3)

[MOVING NIGHTMARE, continued]
so, for this once, that's the bulletin's name. We will dream up some other kind of "Exposé" to call it--but perhaps you have a good idea for a name--if so, send it in.

The neighborhood of Exposition Boulevard and Normandie Avenue changed considerably over the years. While packing, we ran across old photos and other mementoes, and the sudden confrontation with the changes in the house, in the surroundings, and in Ivor Darreg, came as quite a shock, for all the changes had been imperceptibly gradual.

The new place, 3426 Winslow D Drive, is about 6 miles north and somewhat east from the old location. Winslow Drive is only two blocks long, almost at the top of a steep, San Francisco-style hill south of Sunset Boulevard. This is not in Hollywood, but almost, and quite a number of artists and other creative people live in this region of Los Angeles. It is just like moving to another city.

There is a view this far uphill and the acoustics of the living-room are excellent, making this ideal for a music performance and composition studio. The quiet here, as compared with the continuous freight-train and truck traffic noises on Exposition blvd., is a most welcome plus factor.

BE SURE TO CORRECT YOUR ADDRESS LISTN: Ivor Darreg, 3426 Winslow Drive, Los Angeles, California 90026, new phone 664-8893 (if you are one of the "anti-digit" group, call it NOrmandy 4-8893.).

XENHARMONICS

Readers of our last issue will recall the item on "Ultra-oriental music, East of the East", and other issues before that one mentioned unusual musical scales and systems. Interest in this field is growing, and happily, prejudice is lessening.

To discuss the subject clearly, and to encourage development of new musical resources in an orderly manner, proper terminology will be important. What about the terms that have been used to describe and label this "oddball" music in the past? "Quartertones" refers to only one possibility, somewhat less resourceful than popularly supposed. "Microtones" is good enough to describe systems that split the semitone into small fragments, but what of the 17- or 19-tone scales, whose intervals hardly seem small?

After some thought, the editor has derived the term Xenharmonic (from Greek ξένος, xenos, "strange") and this has met with some acceptance. Through the collaboration of John Chalmers and others, we may soon be able to issue a newsletter on this subject, and thus aid and abet the progress of music. More about this when developments warrant.

Robbed TWICE In A Fortnight!

You probably have read in the newspapers about the increased crime wave. Evidently someone or other decided it was our turn. A few hours after we had moved out of the house on Exposition Blvd., somebody broke in and stole the stove and loaded it on a truck. The police caught them in the act. The editor had to go to court and appear at the preliminary hearing.

Unfortunately, witnesses are required to give their addresses. Result, a fortnight later we were visited by burglars <u>again</u>, at the <u>new</u> location. Was this a reprisal for going to court? Could two break-and-enter affairs like this be just a coincidence? Nobody seems to know. In the second burglary, the thief or thieves entered by ripping off the screens at the corner of the kitchen with an odd-shaped tool they left on the scene, and since the lock was missing on the kitchen window at this new location, they got in easily. They stole a stereo tape recorder which had been loaned to us to make some copy and superposed tapes, and took some tools also. It's amazing how many rights the criminal has, and how few rights are left to the law-abiding citizenry!

¿WILL OP OUST POP? (cont'd. from page 1)

a rather sadistic turn—or they were just plain brilliantly irritating. Like for instance: one painting was done in several shades of red-orange, such that they were on the very threshold of discrimination—normal sensation-fatigue caused the shades to merge so that all pattern disappeared; look away at something else for a while, and the pattern came back. This was most exasperating and frustrating, as probably it was meant to be!

Have you seen those cheaply-printed illustrated books, where the colored illustrations are halftones OF halftones—i.e. copied out of another book? The result of superposing dot or line patterns—the moiré effect—is the mainstay of Op Art, and was much in evidence at the 'Responsive Eye' Exhibit. By using moiré patterns in certain ways, it is possible to make the painting or object seem to move in the opposite direction to the one in which you are moving.

Among the best works at the exhibit, partly because they were done without any such malicious intent to irritate, were those by the Israeli artist Yaacov Agam. These were a vivid illustration of how much depends on your point of view—they changed radically as you walked past.

An Italian artist had a clever affair done with a large burnished plate of aluminum: the designs appeared to stand out in very bold relief, but they really did not at all: the plate of metal was truly flat as the proverbial pancake.

There was a glass-and-metal contraption that resembled an oscilloscope—maybe an artist who never used oscilloscopes to fix electronic gadgetry would think it looked like that. Anyway, this mock-up shot images at anybody who passed it.

Then there was a plastic affair all along the side of a wall, with jillions of red and blue dots that kept moving up and down—that is, they seemed to—it is impossible to keep one's eyes still, so the clever Op Artist can exploit this unsteadiness and make it work for him. But golly, if any wallpaper manufacturer ever gets such ideas, let's organize a committee to shoot him at sunrise—if we can wait that long! Could be, at that: Op Art might have started because these artists were forced as little children to gaze for hours at viciously repetitive wallpaper! What are you willing to bet?

City life, too, must have its share in generating this new movement. There were at least three successful attempts to paint a dreadfully loud grinding noise, and some fairly good renditions of brake squeals, accident crashes, etc.

Despite the genuinely worldwide, international aspect of this show, certain motifs ran through just about everything: dazzling lines, dazzling dots, halftone screen effects, astigmatism charts and figures derived therefrom, and those blasted Venetian blinds with zebras visible through many of them!

What is the future of all this! Hard to say at this point, but there is hope, after looking at three or four of the really original entries, that the clichés will sooner or later have run their course. There is also hope that the non-irritant variety of Op will eventually come to predominate.

Perhaps the irritating quality of many of the exhbitis was due to Pop influence, the need to attract attention and shout in order to be heard above the noises Pop is currently making. Loud stripes, loud colors, blatant effects—one is forced to use synaesthetic terms here.

Op Art puts a tiger in your paintbox.

Turn-of-the-Century Artomation

PUT ANOTHER NICKEL IN, by Q. David Bowers. A history of Coin-operated Pianos and Orchestrions. Vestal Press, N.Y. 1966. We ran across this book accidentally at the Los Angeles Library, which numbers it 786.29 B 786. In this day of phonographs and transistor radios, we are apt to forget what the preceding generation had for entertainment and diversion.

Here is an illustrated book that shows you these automatically-played musical instruments, not in little dinky pictures that would need a magnifying glass, but in full-size clear pictures how these instruments looked when they were new.

Once seen and heard in every restaurant and bar and theatre,

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TURN-OF-THE-CENTURY ARTOMATION, continued

these mechanical marvels are now quite rare collector's items, and a devoted body of enthusiasts travel long distances to unearth, collect, and restore them.

Time has taken quite a toll of these instruments, so that some examples are known only from the maker's catalog descriptions.

Here in Southern California, a notable collection exists at Knott's Berry Farm in Buena Park, along with music boxes of the Regina giant-disk type, and fortunately these instruments may be heard as well as seen.

When the present writer was a little boy, there were several restaurants in Portland, Oregon that had such instruments--for instance, a Chinese establishment had a Mills Novelty Co. "Violano--Virtuoso", which was a mechanically-bowed and -played violin in the same case with an abbreviated--compass piano. What this instrument may have lacked in expression and nuance it more than made up for by keeping perfect time and tune, and having always the proper accompaniment-to-solo balance.

Bowers' book describes instruments of this kind, including rarer models with two violins and piano, and one with violin and cello that didn't catch on commercially.

Then there was the Mandolin Quartet and the Mandolin Sextette, featuring violin-toned organ pipes as an option in some models, the basic quartet being a piano-and--mandolin-attachment arrangement that played four-part harmony, with a mandolin-tremolo effect.

Going down the scale, there were cabinet pianos with or without keyboards, and often of short compass such as 65 notes or 44 notes, rather than the standard 88. For a while, automatic harps were made.

There were many variations on the theme of an upright piano with one or two ranks of organ pipes added, usually violin-toned, often flute-toned, sometimes both.

Going up the scale, drums, trap effects, xylophones, glockenspiel, chimes, etc. were added; then more ranks of organ pipes with more extended compass, up to a full-fledged orchestrion weighing tons and taking up considerable room-space.

There were roll-changing mechanisms developed, but on the smaller models one might have to keep putting in more nickels to the tune of $1 or so before the desired selection would come around again on the fixed "program".

Most of the player rolls were for popular tunes of the day, the more serious classics not getting much attention till the player--pianos moved into the home.

"Photoplayers" were developed that combined piano, pipe organ, and drums, to accompany movies in the silent days. Some of these were quite elaborate. Few survive today.

The mechanical principles involved go back to the 18th century and before--the barrel organ is of some antiquity; so is the music-box.

A revival of the player-piano has taken place recently long after everybody thought it was dead and buried—this may have something to do with the current automation situation (as witness the novel by Vonnegut actually entitled *Player-Piano*).

The Jacquard loom with its punched cards and the Hollerith punch-cards, developing into the contemporary IBM cards, are another "cousin" of the automatic player-rolls and cylinders; so too is the famous Link Trainer for airmen, which actually used player-piano parts—this fascinating sidelight we encountered for the first time in Q. David Bowers' book.

Nor is this the end of the story: there are typewriters which play by roll, so that a human typist can supervise four or more machines, letting them play the form letter up to a certain point, then inserting names and other personalizing individual material so that every letter is an original. Just lately, this has been improved on by using electronic peripheral equipment of the kind used with computers—revisions and additions can be made easily.

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Turn-of-the-Century Art-o-mation,

Other non-musical applications have existed or will exist, so the field is of interest to other people besides just musicians.

Now we come to the touchy question, What about claims of the automatically-played instruments to rival or compete with or supplant the live human performer? So much nonsense has been written about this subject down through the years and decades that frankly we are thoroughly weary and disgusted with the stock arguments.

In certain applications of automatic instruments, as for instance in dancing schools, skating rinks, gyms, calisthenics, and the like, the mechanically even tempo and the infallibly precise repetitions of a given tune, starting from any desired point at random, are positive advantages over what the human performer will do in such a situation. So much so that some ads for player-pianos did not even pretend to emulate the human pianist at his own proper task, that of "custom" individualized interpretation.

The lack of dynamic expression was more a matter of economics--what the buyer of the instrument was willing to pay--than it was a matter of engineering design or what was mechanically feasible.

Actually, the so-called "reproducing grands" such as the Welte and the Ampico could do anything a concert pianist could do--for the limitations are those of the piano itself, of the piano's complicated impersonal mass-produced mechanism, not of the automatic player device of real quality.

Curious--incredible, perhaps--but true: as the orchestrion and the player-piano went out, the musical conservatories and music performer training schools in universities and elsewhere, came more and more to turn their human subjects into robots. They actually mechanized their music students, and many of them still do!

When a person is trained in military-drill style till all his or her fire and inspiration are killed, till their creativity is submerged in deadly conformity, till blind tradition has replaced common sense, till they have practiced far too much and too often, till everything is played with an expressionless polish, why then we have something much worse than any machine--an imitation-robot, a self-imprisoned man.

Music that should give pleasure and relaxation to performer and listener alike has now become punishment, stern discipline, drudgery, boring, tiresome. In other cases, it degenerates into a sort of athletic endurance contest.

Further digression belongs in another article--perhaps we'll have room for it on another page.

A remark about rhythmic nuances belongs here: music is not played the way it's written, so the people who prepared player-rolls found this out, and were able to keep the instruments from sounding like metronomes.

Another fact generally ignored is that the average phonograph or transistor radio or jukebox today is not quite high-fidelity--a real piano or real pipe-organ played automatically will have some low and high frequencies audible that the cheap record player or radio simply cannot reproduce, however good the original disc or tape may be. Of course, if your home boasts a $2000 sound system, ...

Well, why so much space given to the automatically-played instrument here? Because your editor is first of all a composer, and has found out that most contemporary composers never get a decent break, and at the present time the automatic instrument is a virtually unexplored channel of expression for composers.

By restricting themselves to the piano, a few pipe-organ stops, and not much else, the manufacturers of those instruments in the good old days missed an opportunity inherent in their medium. By sticking to the popular tunes of the day and the Romantic-period classics, they missed a grand opportunity to give Bach his due, and to play the harpsichord automatically, an instrument really made for this medium!

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TURN-OF-THE-CENTURY ARTOMATION, continued

To the music student or the intelligent listener who wishes to go more deeply into the structure of music, automatic performances of Bach and other contrapuntists, with distinct voice-parts and exact repetitions, would be a tremendous advantage. Take the word of one who has studied these compositions for over 27 years!

Much the same reasoning applies to the contemporary "serialists" and contrapuntal atonalists, possibly to Schönberg himself.

If you could hear ten exact repetitions of one of these ultra-modern works, you might understand it better. And it would not be too difficult to install mechanisms to bring out now this part, now that one, to give the listener privileges the phonograph will never afford him. Already, the owner of an automatic instrument can speed up and slow down the tempo without altering the pitch, which is impossible with disc or tape.

So, although Bowers' book is primarily for those who might like to restore old instruments they have sought out in many hiding-places, the revival of interest in player-instruments could mean much to the contemporary serious composer, getting his works performed this side of the grave.

The way this is related to the new computer music is obvious: many intermediate or combined forms are possible, using the resources of both media. Paradoxically, it is not so closely related to the "electronic tape music" now coming into prominence.

Personally, this writer is interested in getting in touch with someone who has a roll-perforator and also in adapting roll-playing to various electronic musical instruments.

Another future opportunity is afforded by new scales and tuning-systems—with 22 or 31 or even more tones to the octave instead of 12, obviously many possibilities will have to be passed up unless one can use a "multifingered" instrument to which complicated chords and progressions offer no technical obstacles. It would not be too far-fetched to say that the field of non-12-tone music has been waiting for automatic playing all these centuries.

There is a kind of music that expects and demands interpreters; each time it is played it should be different. But there is another kind of music just as important and significant and profound, that should not be interpreted, should not have anyone standing between composer and listener, for in this kind of music the composer has assumed the responsibility of specifying almost everything, just as the painter or sculptor ordinarily does. This latter kind of music calls for automatic instruments, or the use of computers or special-purpose machines to fix the composer's intentions for all time. The same composer may write both kinds at different times.

If this has made you interested in the place of the automatic musical instrument in the scheme of things, write to : Vestal Press, Vestal, New York 13850, and ask for their catalog of publications.

LOGLAN—"logical language"

Just after moving to this new location we received a copy of the new 'Preprint Edition' of *Loglan*, by James Cooke Brown. We had often wondered what had become of Loglan since it was so well introduced and summarized in *Scientific American* for June, 1960. (For an 'at a glance' résumé, consult that article at your friendly neighborhood library.)

It now appears that extensive research and trial of the language has been going on in the interim, including a bilingual dictionary prepared with the help of a computer.

There have been something like 2000 constructed languages, equalling or exceeding the number of 'natural' tongues; why another one? Because for once, this one is quite different. Research in phonetics/phonemics, structural linguistics, and the relation of grammar to logic, have been *actually applied* in the engineering of this language. Other languages constructed in recent years have ignored phonetics/phonemics, or have deëmphasized the role of spoken language in favor of the written word, e.g. Interlingua.

The hypothesis of the late Benjamin Lee Whorf, to the effect that the structure and patterning of any language influences the thinking and behavior of its speakers, has been a subject of controversy for several years. Most semanticists agree with this idea; the linguist Joshua Whatmough disagrees, as do some other scholars.

Now Loglan presents a unique and timely opportunity to test out this hypothesis.

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(*LOGLAN, continued from page 6*)

Replacing the haphazard, just-grew-by-itself structural underpinning of most languages with a carefully-designed structure based on symbolic logic and the work of linguists and philosophers, should—if the Whorf hypothesis is true—change the thinking habits of the speakers of Loglan for the better.

The experiment certainly is worth trying, and those interested may write the Loglan Institute, Postoffice Box 221, Salisbury, North Carolina 28144, regarding available instruction and informative materials.

Some of you are going to wonder—What's this? the author of the Numaudo system which purports to make symbolic logic and mathematics *speakable*, devoting space gratis and unasked-for, to someone else's artificial logical language!

Actually, this only sharpens the distinction we have been trying to make clear for six years: Loglan is a *language;* Numaudo is *not* a language, but only a *code.* Their scopes are different; their domains are different; their uses and applications are different; and there is need for both, and the overlap is not serious. True, it was a most amazing coincidence that the Numaudo book should have been published almost the same day the *Scientific American* article hit the newsstands and library shelves.

It's all for the best, really: neither party can be accused of competing with the other. Besides, the needs met by the two systems and the people who will use them, diverge considerably, although some people will need and use both, at different times.

A language must be able to say *go, come, father, lion, tiger, red, blue,* etc. Loglan can do this; Numaudo cannot. Numaudo can only say the notions contained in mathematics-and-symbolic-logic, which are mostly of a more precise and abstract nature than those treated within a language-proper such as English, Esperanto, French, Interlingua, German, Volapük, Greek, Italian, Neo, Sanskrit, Russian, Ido, or Chinese.

This is so because Numaudo is a *code,* an *attachment* for the already-existing, semi-artificial, international written system of mathematics-and-symbolic-logic. Numaudo *speaks, pronounces* that system; it does not change its structure. Is mathematics-and-symbolic-logic a language? Yes, in one sense; no, in another. If it were on a par with English or Japanese or Russian, there would be no need for mathematics and symbolic logic—all that could be said would have been sayable in those natural languages. Obviously, it is not sayable, without cripplingly awkward and ambiguous circumlocution, for look at the progress that has been made in recent centuries because of algebra, calculus, and later Boolean algebra and symbolic logic!

Apparently the aim of Loglan is to provide a complete language which can translate most of what is sayable in ordinary languages, but make it possible and also *attractive* to say it with an orientation toward the propositions of symbolic logic. There is an intent to avoid or resolve ambiguities. Yet there is also provision for the poetic, for metaphor and other figurative speech. Is such comprehensiveness possible? That remains to be seen. Interglossa was stillborn partly because it didn't have the proper mix of scientific, metaphorical, abstract, and concrete. Many other schemes never got off the ground on this account. Esperanto sturdily survives Ido and many other rivals because it does not yield to the temptation of overprecision in a language for everyday life.

However, Loglan has the advantage of those recent discoveries in linguistic science, and so far as we know these discoveries have not been applied to the construction of a language before. It just possibly might work out.

Now, a fundamental difference between Loglan *language* and Numaudo *code* is that Loglan seeks to make the structure of symbolic logic available, if the speaker so *desires,* for helping construct spoken and written sentences in the ordinary course of business. Numaudo *Code,* on the other hand, maintains the present separation between mathematico-logical 'language' and the imprecise language of ordinary discourse. Just as ordinary words and sentences are intermixed with strings of mathematical symbols in an ordinary textbook, each kind of language fulfilling its own function and not trying either one to usurp the proper purposes of the other, but co-operating in alternation to get the ideas over; —so Numaudo syllables will render the mathematico-logical symbols in speakable, listenable form so that co-operative alternation can be practiced in conversation or over audio communication channels such as radio, telephone, and tape recording. (The present situation is that the precise written symbols get an imprecise oral *translation into* words or names of spoken English, Russian, Esperanto, etc.)

It seems quite likely to the present reviewer that both approaches, those of separation and of combination, will be useful, in different situations and at different times.

It wouldn't be fair to conclude without citing examples. Let's begin with one the book cites as a typical English-language ambiguity:

Pretty little girls school.

Which words modify what? If this example seems contrived and extreme, remember those newspaper headlines! According to Brown, this English phrase has at least seventeen potential meanings, some eleven of which are plausible for the average English-speaker. A table is given in back of the book showing the 17 meanings with their Loglan resolutions and logical formulae corresponding.

For instance:

(2) *A, BCD*
bilti ge cmalo nirli ckela
"is a *pretty,* small girls', school"
(i.e., pretty for school for small girls)

(9) A(B.C)D ≡ ABD . ACD
bilti gi cmalo ce nirli gu ckela
"is a pretty small *school* and a *pretty* girls' school" i.e., is a school which is pretty small and for pretty girls.

Are we spoiling this argument if we point out that the Russian language, which is not particularly precise or logical in many cases, comes through this particular test with flying colors?

Маленькая школа для прекрасных девушек (the school is small but the pretty girls are not small)

Школа для прекрасных девочек (the school is not characterized, but the girls are both little and pretty)

(*continued on next page*)

(Loglan, concluded)

Прекрасная школа для девочек (The school is pretty and the girls are small).

...Indeed, the complicated Russian apparatus of prefixes, suffixes, grammatical endings, etc. actually *precludes* certain of the English ambiguities, because nouns, verbs, and adjectives have different forms evident at a glance in most cases.

Spanish, too, is less ambiguous:

(the school is small and the girls are pretty): *Esquela pequeña para muchachas hermosas ;*

(The school not characterized, but the girls both small and pretty) *Escuela para muchachas pequeñas y hermosas;*

(The school is pretty and the girls are small) *Escuela hermosa para muchachas pequeñas.*

Again, Spanish rules would not allow the 'bumping together' of four words as can be done in English.

Esperanto can be quite efficient; it gets lots of work out of its small vocabulary and battery of prefixes and suffixes:

Beleta lernejo por knabinetoj (the school is pretty and the girls are small);

Beleta lernejeto por knabinoj (the school is both pretty and small but the girls are not described):

Lernejeto por beletaj knabinoj

(The school is small and the girls are pretty).

Most of those who make fun of Esperanto have never examined it: they might accidentally learn some and thus lose their precious status!

Thus such selling-points as this power of reducing ambiguity do not disclose the real merit and potential of Loglan.

Loglan has a special *syllable-structure*. This is so cleverly engineered that Loglan words could be used with machines--an 'electronic ear' could determine the proper division of a Loglan utterance into words and syllables and also pigeonhole the words into proper classes (names, predicates, particles, etc.). A price is paid for this machine-compatibility, of course: words must be distorted to fit a Procrustean pattern of so many vowels and consonants arranged in a permissible sequence. Man is *mrani;* go is *gotso;* a piece of soap is *dzaso*. Except for a slight ghost of Volapük, Loglan sounds like nothing else; it has a distinctive personality. This probably will help in the long run.

No matter what happens, the Loglan book presents proof of serious work carefully done.

Those 'Electronic' Tapes

Recent months have brought a tremendous upsurge of activity in electronic music, --in all senses of that term. For instance the Independent Electronic Music Center, Trumansburg, N.Y. 14886, recently published an electronic music studio directory with a surprisingly world-wide scope. Our studio is listed.

Early this year we obtained a ride out to the campus of the University of California at Los Angeles (for the first time in 16 years) to hear the lecture-recital by Vladimir Ussachevsky of New York, given at Schönberg Hall. Tapes were played from all over the world: A 'school' has formed, complete with clichés! During his talk, Prof. Ussachevsky said, for example, that synthetic reverberation effects had been overexploited. This shows one of the results of rapid communication in the present electronic age: people in many different countries imitating one another.

It was difficult to tell what country any of the tape selections had come from --one or two of them sounded Martian!

A few years ago, it had seemed that the *musique concrète* movement, which concentrated on recording 'natural' and environmental sounds, would have remained a separate group, but the tapes played in the recital amply confirmed Ussachevsky's contention that musique concrète had merged with the mainstream of tape manipulation and mosaicking.

In sharp contrast to most of the present writer's compositions, hardly any *scales* or *chords* were in evidence. Paradoxically enough, the various tapes seemed to belong to one idiom because of what they *lacked* in common, rather than because of what they *had* in common!

The majority of the tapes played were prepared in studios filled with electronic equipment of the kind used in broadcasting, recording, and testing of electronic devices, rather than using electronic musical instruments. Often the composers used sounds of conventional musical instruments such as piano or violin.

Composing this way requires great patience, as well as high-quality equipment because of the many re-re-recording steps involved. Our own bias is away from so much re-recording and toward the use of new instruments, rather than trying as these people do, to get *everything* out of oscillators, filters, and tape machines.

Among the distinct advantages of the tape mosaicking and musique concrète medium, however, are the ability to take almost any sound and *utterly transform* it. the ability to give vocal qualities to instrumental sounds and to give instrumental sounds to the speaking or singing voices, and the totally unprecedented and amazing control over *NOISES*. Herein lies the appeal to so many forward-looking composers of this fascinating medium.

This school must be distinguished from *computer* music, although some people engage in both, and intermediate forms are found.

THOSE 'ELECTRONIC' TAPES, continued

Special-purpose machines like the *RCA Synthesizer* fall into an intermediate category, and recently there are 'electronic music studio packages' or 'black boxes' that also form their own class.

It is now possible to organize sound, tone as well as noise, according to entirely different patterns and principles; -in manners that were not possible before.

Many of these effects cannot be written down in musical notation. Some of the tape composers have invented new notations or have used mathematical-style graphs.

We have had an opportunity in recent months to make a survey of the field, thanks to Philip Merrill, who loaned us some recordings, and to Claudio San Yon Pan, who supplied a representative tape, (which latter, unfortunately, was stolen in the second burglary reported on P.2).

It develops from listening to these avant-garde compositions, that our own work is complementary to, rather than in competition with, these creations, so some measure of active coöperation ought to be possible, and indeed it has already begun.

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SCRAMBLED BRAINWAVES

The best cure for sudden disappointment is a pencil sharpener.

Anybody who buys a watermelon is probably going to suck seed.

The Amati, Stradivarius, Guarnerius, Stainer, and so on have been around for quite a long time----so what's new about High Fiddle-ity ?

Is a piano key bored? ---Why shouldn't it be, playing the same old note day after day?

Half a block from here is a flight of 203 steps, used to join Micheltorena Street to itself. It is almost unanimously agreed that this affords too strenuous a climb-it.

We've finally figured out why most microphones and loudspeakers have screens or grillwork in front of them: it's to strain the voice.

Kittens are the copies run off on a duplicatting machine--this must have something to do with the expression "copycat".

According to the science column in a recent Sunday Supplement, to talk with the dolphins you need a special-porpoise amplifier.

...As the chemistry professor used to say when class was over: "Sulphur now. I await your reaction."

In Portland (Oregon) it's mosquitos; in San Francisco it's fleas; In San Diego it's beetles (note the spelling); in extreme southeastern California, we are told, it's some kind of gnats; and in Los Angeles it's cockroaches. In the Midwest--at least near Kansas City--it's locusts. Doesn't this inspire you to compile an Entomological Atlas of the country?

As everyone knows, the "Trolley Song", so popular several years ago, is from the opera Car-Men. The wholesale replacement of streetcars by busses in nearly every city in the world, however, has not dimmed its popularity one whit. In almost any bus you get on, you still will hear the famous aria, TO THE REAR DOOR !

Overheard on the Radio the other day:

A little girl was reproved by her parents.

"Don't say 'must' to me" was her rejoinder. "It makes me feel won't all over!"

In the Good Old Days, people turned up their noses at anyone who Washed Their Dirty Linen In Public.

—Now the very same people go regularly to the Laundromat!

ga gy: gɛ 'gi gɔ

=== What language is that?

Well actually, no language at all--just the closest we can get, using standard phonetic symbols, to what the opening passage of our new "Endopsychic Quartet" sounds like. Yet, though these and other syllables weren't intended to mean anything, (actually, they were a bunch of syllables left over after constructing the Numaudo Code!), they have had quite an effect on nearly everyone who has heard them —so maybe we have stumbled onto an International Language of the Subconscious, after all.

Of course you will remember our discussion of Dada in a previous issue--a 1917 "sound poem" was quoted--Dadaists tried getting up on a soapbox (these days, a detergent box wouldn't support your weight, would it?) and declaiming all those mixed-up sounds. This sort of thing attracted some attention, and got written up in books, but didn't really catch on. Something was missing.

Could be we've found it: with 3 tape machines of different kinds, it was possible to superpose speaking at different speeds, and backward against forward, so as to add the musical ingredients of rhythm and polyphony to the mélange.

The effect was compared by some of our friends to an animated discussion among the Id, the Superego, the Subconscious, and the Subliminal Reactive Whatnot==hence our title, "The Endopsychic Quartet". Anyway, it's much more fun than being analyzed.

UNDERSTANDING MEDIA

This is the title of a question-raising book, now available as McGraw-Hill paperback, by Marshall McLuhan, a Canadian professor who has attained some notice in quite a number of magazines, even getting into *Vogue* with a discussion of such recent developments as information retrieval.

Like a dog worrying a bone, he returns again and again to a topic which he never finishes with: the extremely important distinction between the *electronic* and the *mechanical* eras. The nineteenth century saw many forms and widespread applications of *mechanization*. Too many people seem to continue thinking in 19th-century terms: they regard automation as merely 'bigger and better' mechanization--as gears, sprockets, pulleys, springs, levers, motors.

McLuhan shows that this is not only a big mistake, but a dangerous mistake. A 19th-century mechanism took *time* to go through its motions; it was heavy; it took up lots of space. By contrast, the speed of transmission in an electronic system, no matter what the distance involved is almost the speed of light; it is usually lightweight; the smallness of recent circuits has reached the unbelievable.

In consequence we have another of McLuhan's recurring themes: practically instantaneous communication over great distances, in ever-increasing volume, is beginning to affect the everyday lives of average persons, so that the disruptive trend, that toward specialization, compartmentalization, and so on that has been the rule for about a century, is now being *reversed:* instant communication implies total involvement. Failure to realize that this reversal has begun, McLuhan says, has balled things up like real crazy, man! Not that any of H.G. Wells' Utopias are coming true: that's just the point: you can't extrapolate from the 19th century any more. This also means that science-fiction is in danger of being behind the times rather than ahead of its time as it pretends to be.

He points out that television is not just another kind of movie, nor yet just a successor to radio. He makes a curious distinction between 'hot' and 'cool' media, which distinction, we must confess, is rather hard to follow from his explanations. (continued on next page)

understanding media *(continued)*

The inscription on stone, for instance, he says is 'cool' in contradistinction to the printed word, which latter he says is 'hot'; he claims the 'cool' medium of TV is counteracting the previous 'hotting up' of the public all these years by radio. In support of his thesis, he cites the entirely different effect a political speech has on TV from what it used to have on radio.

He also comes back again and again to the profound difference between the world in which the printed word had control, where books were the main means of education, and the present world where children are thoroughly transformed by television long before they ever see a book or start to school. He implies that for this reason they are more sophisticated than children of that age ever were before.

In the earlier epoch of computers (how long ago that seems!) they often were called 'giant brains', personifying them, anthropomorphizing them. Now they are called 'giant machines' even though they take up one-tenth or less of the room they used to take, and even though they have hardly any moving parts. This designation *"machine"* keeps us back in the 19th century, and keeps us from entertaining the proper attitude toward computers and what they do.

We are still back there in eighteen-umpty-ump with Babbage's *Difference Engine,* which was to have been a mighty assemblage of gears, axles, pinions, dials, and mechanical linkages of the kind used in sewing machines, looms, typewriters, and tower-clocks. It was never finished because it overtaxed the technical machine-shop skills of its time. True, the hardware inside a contemporary computer mainly adds and subtracts by counting.

The difference is not only that the workings of the device's innards have been speeded up thousands of thousands of times, so that a billionth of a second now has meaning, needing the new name of *nanosecond* to call it by. There is also the difference, as McLuhan points out, that 'software' as the programming, coding, and instructions now are called, has developed to an incredible degree of sophistication, such that special software companies are multiplying like rabbits, and the programs, instructions, compilers, and simulations cost plenty of money. Already the investment in this sort of thing is staggering, and the Copyright Office and other legal enterprises are having a dreadful time trying to keep up with Progress! A machine with gears and valves and levers couldn't be 'programmed' in the way a computer can, although it can be programmed in a rudimentary sort of way. So this new state of affairs was not provided for because it literally was undreamt of.

A computer can be made to pretend that it is another make or model of computer, having quite different insides. If this is so, then McLuhan's remark about the drastic change in automatic production follows logically enough: Changes in a manufactured product that used to mean fantastically-expensive new dies, jigs, and fixtures (so the changes weren't made after all!), now are a relatively inexpensive matter of putting a new recorded tape on a playback reel, or something of the kind. Mass production thus loses its deadly *sameness:* the new world won't be so monotonous. Here is something the architects of science-fiction utopias have failed to see.

Another factor bringing us more powerful computers and producing unexpected effects on us, is the second- and third-order automation--the late Dr. Norbert Wiener spoke of the *self-programming* computer with a goodly measure of Fear and Trembling. McLuhan is more optimistic. He points out the many things athat are improving instead of getting worse.

Contrast this with the tragic endings of most science-fiction stories. And bear in mind that within the memory of nearly all of us, there used to be a stock exclamation of utter crazy impossibility:

"Why, you could no more do that than go to the Moon!"

So isn't it time to read McLuhan's book and trade in your old obsolete Utopia?

Clavichord Damaged in Move

Ideas and suggestions are sought for a solution to our latest predicament. Item 1: The acoustics of the front room at this new location are excellent. An unexpected and providential opportunity is offered to demonstrate our musical innovations. Item 2: 'Providential', because only in the last year has real interest been taken in our amplifying clavichord: the public interest in guitars and in sound equipment probably has something to do with this. The time is ripe as never before; and this house is near Hollywood, whereas the former location seemed too remote to any interested parties. (Continued on Next Page)

CLAVICHORD INJURED IN MOVING (continued)

Item 3: We have never been able to raise the money to put the amplifying clavichord in a case, so the instrument could not be in the front room of the present house nor of the three previous houses. Item 4: This could be viewed as an opportunity, as now the instrument can be rebuilt to 6' or 5'6" instead of its present length of 8'4", which length was necessary while developing and doing research on tone-quality in the bass register. Reducing the size of the instrument, besides making a case less expensive, would make the instrument transportable to another room or auditorium, and it would go better with a piano or harpsichord that might be in the same room with it. Item 5: Ivories were torn off the keys and other damage inflicted in the moving. Item 6: The garages were locked when the movers arrived, and besides that they were full of things left behind by previous tenants, so the movers were forced to put the clavichord and other valuables out in the back yard where they were exposed to weather and inquisitive children for three weeks, resulting in broken strings, rusted metal, and further damage to the amplifying clavichord, as well as to its loudspeaker and amplifier. It took three weeks before volunteers could come and help us stow things away. Acknowledgments are due to Raymond and Richard Boothe, and J. Talbot Winchell. Item 6: As transistors are 'in', this is an opportunity to incorporate them in the rebuilt instrument. Item 7: It isn't much use trying to describe the instrument's unique tone and resources. Fortunately visitors may hear tapes made when the clavichord was at its best, and some of our friends have copies of this tape. Item 8: This instrument is not a harpsichord and indeed we have harpsichord ideas which would constitute a separate project! Item 9: Nor is this instrument an attempt to improve or replace the piano. Item 10: This instrument is not part of the 'purist' efforts to re-create 17th century and 18th century instruments exactly as they were then--rather, this is a venture in restitution for the undeserved neglect the clavichord idea suffered all these many years. Item 11: Plans for the instrument in rebuilt form are substantially complete. Minor modifications can be made as seems advisable. Item 12: Some kind of fund-raising campaign seems the logical solution, so the first thing we need is an accurate estimate of the current cost of a rebuilt instrument, less any economies that could be effected by using donated materials. It will be necessary to find temporary workshop space to use while the rebuilding is going on--estimated time, 6 months. Although there is no plan to produce instruments in quantity, it should be pointed out that three clavichords of this kind could be built at the same time with little more trouble than one, if any sponsors need insttuments themselves. Main object is a one-of-a-kind instrument, designed to be recorded--the music the amplifying clavichord produces is what we contemplate producing in quantity: a large portion of existing music can be rendered on the amplifying clavichord, as well as new experimental works, and quite a number of performers and composers should be available, judging from the interest that has been shown lately--remember, the instrument has had no benefit of being advertised as yet! Publicity is sought!

COMING ATTRACTIONS ~ ~ ~

Some things of sufficient importance that we had every intention of including them in this issue are, alas!, going to have to be 'included out' and held over to the next issue. It's dangerous, we learned from oft-repeated distressful experience, to promise another issue of this not-quite-quarterly on a definite date, so take with a grain of salt our scheduling Nº 36 for January 1967. After the holiday rush is the idea there.

Among the future articles and space-fillers may be:

How Practical Is Machine Translation?
Review of *The Privacy Invaders, The Naked Society*, and any other pertinent publications about this threat to the Individual.
Examination of the 'Color-music' question: synaesthesia, Lumia, combined art-forms &c.
A Code In the Head. . .
* * * and probably a contributed article or two and some Unexpected things that will transpire between now and then . . . . .

Announcing the formation of

The International Pogonotraphic League

Eligible persons may write Ivor Darreg for further information.

Our 34-page monograph, **Shall We Improve the Piano?**, *was sold out again this Summer! Interest in it from all over the country and in Canada has far surpassed our expectations. It will be reprinted soon, and if you want a copy, inquire in November. Plans are afoot for wider publication.*

REMEMBER THE NEW ADDRESS AND ZIP CODE AND TELEPHONE:

Ivor Darreg, 3426 Winslow Drive
Los Angeles, California 90026
Area Code 213, Phone 664 - 8893

Some of you may be interested in subscribing to a new quarterly dealing with the social impact of automation and kindred problems. If so, write Information FORUM on Technology & Nation, Postoffice Box 148, Newark, Delaware 19711

Among our friends interested in the tape form of electronic music composition are:

Claudio Sen Yon Pan, 732 Washington Place, Long Beach, California 90813

——— and ———

Philip H. Merrill, 1224-B 22nd street, Santa Monica, California.

The Exposé is now listed in an international Directory of literary magazines in Issue No. 59 of TRACE. Address of Trace is Box 1068, Hollywood, California 90028