In 1967 an American artist, Pamela Zoline, had published a painterly s.f. short story, "The Heat Death Of The Universe". Here, by another North American artist, is a 21<sup>st</sup> century reflection:

## The E-Death Of Technology

Ki was the Sumerian goddess personifying earth.

keys to understanding, Morse code keys tapping, keystones to complete arches, house-keys, keys to language, keys to cars, typewriter keys, decryption keys, code key cards, typing keyboards, piano keys, sharp and flat music keys major and minor, keynotes...

too swift hands shift-sculpting air, taught fingers in deft flurry, blurred flesh felt on black-white keys, through sinew, bone, to fine-touch levers, by taut wires, felt on little strikers...end.

sitting back, the composer pulls his instruments off keyboard...

the piece finished.

most ephemeral art form...unseen, untouched, here now...

then – gone.

most purely felt art form – experienced through waves air brushing membrane quivering levers of delicate bone wet-coaxing chemical impulse spark neural linkage perceptual web tracing forms of minds sense self movements through time.

feeling flow weavings - full textured, thinning, receding, shaping, emote moving... that which is more than the sum of its component parts—*the* primal emergent property, music.

An audience emaciatedly small but appreciative, they linger as the composer-pianist articulates, "That connectivity of information-skill is broken. The transmission sequence of idea, knowledge, practised skills, built object, perpetuated through successive generations, has disintegrated – blown to smithereens of specialities cast far beyond our reach, by an unprecedented noise-whadge of long blasting sounds and heavy grinding noises of admarket saturation bombardment on all frequencies, continual air burst pressure waves of mass marketing of mass consumption of mass produced 'New Products' of maximized profitability through designed obsolescence, which once discarded are replaced as the masses are told to do by mass media... It's a mass conspiracy."

Mass: Einstein (1905) showed by his theory of relativity that the mass of a body m as measured by an observer moving with a speed v with respect to it is given by

 $m = m_o / \sqrt{(1 - v^2/c^2)}$ 

where m is the mass measured by an observer at rest with respect to the body, and c is the speed of light. From this result, and assuming that energy is rigorously conserved in all processes, he showed that the transfer of energy E entails the transfer of mass m where E=mc2. This leads to the conclusion that mass is also conserved.

The thought of scientific definitions agitates the keyboard master and he rails at that equation, "It's a lie! Absurd!

"No adulteration of this kind can be conserved!

"Where m is mass of overpopulation

"multiplying the acceleration

"of greed squared transmissions

"at the speed of light c equals

"energies out of control

"of chain reaction!

"There's no balancing what blows up in your face!

"No conservation of mass quantities,

"just all consuming escalation!

"resulting in mass abrogation of responsibility

"to future generations..."

Accordingly, we have

the New Math of this generation:

Aftermath = After Us

the selfish-shit equation.

### Mass production:

The activities of most people producing nothing that most people really need.

Gradually his audience begins to thin...the dwindling number of listeners finally dropping below critical mass...

Maestro insists, "We already exist in a technological aftermath never encountered in history. Most of us don't grow or make what most of us depend on. Nor do we have any relationship with anyone who does. We cannot repair these things we depend on, nor take them to anyone who will, and we have no understanding of how they function! Is there anybody out there -- who could *invent* a radio, or a telephone – conceive and build one without pre-existing example or instructions to follow? There is no Leon Theremin today, no Tesla who could build from silica and wire increments a thing never before seen thought or heard of . . ."

But the audience is gone, already off in key ignited rolling ton of steel and glass to make it home to lives of busy-ness and things... fine sharp and flat musical keys fast fading from their memories . . .

his warning falls unheard

"...the entire weight of our technologically dependent society rests on a foundation of electrons we could not rebuild from scratch if it disintegrated out from under us . . ."

everywhere now artificial keys are in and to all things we use to do what we made in and of passed time. with that artifice of keys we mark changes, in past times the things we used to do with artifice of skills, now manifest as artificial hills of wasted things en masse produced for mass consuming useless working pastimes...

Relative atomic mass. Atomic weight: The ratio of the average mass per atom of a specified isotopic composition of an element to 1/12 of the mass of a carbon-12 atom. The natural isotopic composition is assumed unless otherwise stated.

What is the atomic weight of stupidity?

An intranseinsteinigent element with an heisenbergian shell enfoldment. It is so abundant that it cannot be measured due to its quantum entanglement with every other element in human society. Its radiation is omnipresent, which makes exposure unavoidable; yet no human has ever developed any immunity to it, which makes it invariably damaging. Its half-life is estimated to be 250,000 years — which is a guess based on the span of time humans are believed to have existed. In its pure form, or combined with other elements into compound stupidities, it has been proven to be of no practical use whatsoever.

the key is flat grooved brass hardware sawtoothed waveform synth sound source program able analog oscilator no more. turn the tables up the down grade downhill slide rule: upgrade device downplay the vice upload the pay download and play. the key with mag strip r.f. chip dipped in flat plastic... every thing there is to know about you numbered, tracked, encapsulated in pill form expiry dated T H X one one three eighted. imprinted. machine stamped formulated reconstituted concentrated preprogrammed attention-span abbreviated multi-zero-task disintegrated focus: people of no depth, have no depth perception. flatness made mass reproduction of the microcircuit. what used to have to be constructed out of 3 dimensional components, became printed circuits getting smaller faster cheaper denser complexer for user deconstructed into useless without power—made for us a flatness realm in which to dwell—

tool diverted to distraction--busyness for interaction--flatlined depth perception-----

reality keystroke defined what's on that screen is now divine. inviolate. papal authority infallible. not for your eyes to see, without approval – not available for reasons undisclosable. know that the data which constructs you is disposable.

that's the way We made it up so there. you volunteered for this, surrendered all that's dear to Us, obediently, servilely as you're supposed to do. good boy, girl go, you fetch, go buy--cheer up!

"We make everything you need, and you need everything We make." commercial, zik-zak corporation, from "max headroom" t.v. series.

oh ye of interfaithe
let us all pray -infix this chip and pay —
for thy safety security
be sure ye stay in the shallow lee,
remain calm we, v. r. in
virtue\_all experienc\_ing
technical digi\_culty . . .

#### Circuit:

A circular journey, or one begining and ending at the same place; a round.

A number of electrical components connected together to form a conducting path and fulfilling a desired function.

a circuitous route ambles aimlessly about, to throw off target with a purpose, off diverting energy in a fog of snowcrash pixels floating in the crystal method mad adness weighing all ways the right angles on screens.

Are users of G.P.S. following a circuitous route because they are using the route the circuits tell them to follow?

there's G.P.S. chips in golf balls to tell their distance from the hole. the same chip in each golfer to tell distance from one's nose to balls to hole. if chips should fall, no golfer knows how to tell one's own balls distance from a hole...in the ground.

every golfer on the fairway green, frantically jabbing at their I-Cram screen, "—not working! it'snotworking!!" from the dead-flat-screens clutched in their palms they look up at the calm trees palm at Last Resort, eyes crazed "-mygawd! i don't know where i am!!"

#### Cybernetics:

The theory of communication and control mechanisms in living beings and machines. Information Theory:

A branch of Cybernetics that attempts to define the amount of information required to control a process of given complexity.

bouncing from ball of butter basted turkey to press processed slices flat plastic turnkey opens closes all doors and all devices through maze corridors boxes and packages in stores list maize ingredients in all d'oeuvre-hors, ding-dongs, petit-fors, labs livermore and smores. diapers, cleaners, diesel motors and more big breasts and wings and thighs and things, increasing noise and weight of data transsaturate raise info fat accumulation of-for-mentioned in-for-mation torrents access—please key in-your-name-an numbers translate gibberish with giblets din with dinde.

access approved—
state subject
to search seize detain without warrants
or cause i-dentity to
turn into e-detainee
subject is not
on record deleted
no file found
request denied function
no-avail-able...error.

### Neural Marketing:

A dynamic neural feedback mapping and conditioning system for selectively inducing addictive responses to consumption of disposable technology and other products.

forewarned, the animated meat herd e-pod-people waste-junkies sheep, were heedless, prion aero-jelled brains, absurd appetites till now unheard of living within humility means — enough bingeing on candied bilge, now purge Corruption's Money Route to Ego — pestilent evil's true root.

t—minus X billion and counting...more...now...more...now...more...now...more...now... see—I'm so entitled and counting...me...now...me...now...me...now...me...now... "Houston--we have a problem"

"...I am become death, the destroyer of worlds..."

Electromagnetic Radiation: A form of energy in which associated electric and magnetic field oscillations are propagated through a vacuum at speed c (299,792 km./sec); the electric and magnetic fields being at right angles to each other and to the direction of propagation. Its characteristics vary according to frequency, from the lowest—radio waves, through microwaves, infrared, visible light, ultraviolet, x-rays, to gamma rays—the highest. The complete range of frequencies is called the electromagnetic spectrum.

#### In nano time of the microworld:

coded digital inflections
spread diseases and infections
of the circuitry interconnected systems.
viruses self-replicate,
rabbits breed to fill up space,
trojans leave bait,
worms tunnel in and wait,
spyware lurking everywhere stalks,
malware mutations escalate.
the only files secure from crash or raid,
are those you printed out in time to put in a steel box.

# Electromagnetic Pulse (EMP):

A burst of electromagnetic radiation produced by nuclear explosion, sudden magnetic field fluctuation (meteor), or EMP device. Effects of an EMP (depending on device yield and distance to target) disrupt, disable or destroy electronic technology, electrical infrastructure.

In day time in the macroworld:

what once was s-f sight is now too real.

power grids, utilities and wiring,
cables, ducting, all following
ninety degree maze path turnings...

just the right angle for EM field power coupling,
front or back door--through antennae,
transient currents, or by electronic standing waves,
on all of those interconnected pathways
for an electromagnetic pulse to cause, quote, "useful damage".
kill essential DRAMs, and all kinds of transistors,
breach transformers, shields, arrestors,
to burn wee semiconductors.

Choose from our selection of EMP weapon systems and devices:

From high end nuclear, to inexpensive select-target models like—explosively pumped coaxial flux compression, or multiple shot propellant driven magneto hydrodynamic, generators. Also featuring our HPM sources—with tighter focus, wider band, and circularly polarized emission equipped for better coupling into more varied targets! Magnetrons, Relativistic Klystrons, Reflex Triodes, slow wave and spark gap devices, and the "current" favorite—the Vircator! (axial or transverse).

Satisfaction garanteed! We'll outfit you to suit your needs! Disrupt, disable, or destroy, communications, electronics or utilities! Don't wait for the next super-flare or CME!

#### Coronal Mass Ejection (CME):

An outward eruption into interplanetary space of material from the solar corona; light isotope plasma threaded with magnetic field lines. When directed at Earth, the shockwave of the traveling mass of solar energetic particles causes a geomagnetic storm that distorts the earth's magnetosphere, releasing terrawatts of energy in the upper atmosphere, causing unusual auroral phenomenae. The largest most powerful CME's have the energy of hundreds of billions of H-bombs, are many times larger than Earth, and traverse 1 au in less than a day. At our present level of dependency, and concurrent unpreparedness; CME disabling effects on satelites, communications systems, power grids, and other electrical/electronics based technological infrastructure would span continental scale and last for months, or even years.

Every motion of each molecule and cell on Earth ever occurred since flow of life began, each breeze and hurricane, parched sands grain, nourishing rain, all locomotion of each particle and wave...in all the oceans, moved by impetus of radiating light-warmth of Near Star.

Only now in this instant of arrogant pretentious specks spitting complaints,

- "—it's not enough!—too difficult!—it costs too much to think—of ways to use it!
- "-just repeat what we've been doing with our sludge and smoke and ruin!
- "—tear up waste defecate in the place that all live in,

"so endless appetites of 'Elite Few' can be forgiven...
"and dismiss what every grassblade, leaf, microbe, and reptile ever been,
"solved how to use, soak up, and save..."
what 'We' can't dimension with evolution's 'apex brain'...

Nature just is—not kind—but fair – She holds the balance. Solar energy now spurned by Homo Hubris specks, rejected and disdained... Shall maelstrom solar burn of human tinker-toy tech wrecked, by power unrestrained.

glazed infant doe nut eyes stare blank stunned immobile. fixed helplessness docile.

conformed to patternware, plastic-man Tupperware, spastic nerve-end wetware software conditioned to hardware obedience required field servile. presence of mind...off-line.

in skull—pre-packed sponge-cake nothing to make, no fuss, premixed mold mastered muss, microwave safe no bake, nothing to think, no grace. just push and take, consume. conform. porn. defecate.

all clocks—no hands no face time jerks, no moving sweep increment flick, no tick, stop motion animate. increments cease—no dates no numbers, bits fragment and freeze. circuitry noise submerged inclement weather surge wave overwhelmed electron state all dead. still. blank screen slate.

elsewhere, sun shines, wind blows, birds tweet.

soon they must gather round the hearth all over a new subdued Earth, of the No Electronic Tech No Thing Available For Use Age... the E-Death of their universe.

while everywhere more Silent Springs come, now... somehow on the winds' air—not electrons—Pure Ki's clear music, must weave on.