Ramblin’ along the Jornada del Muerto
Greg Mello, Los Alamos Study Group, November 28, 2023

It is for him that is lonely or in prison to dream of fellowship, but for him that is of a fellowship to do and not to dream.

Forsooth, brethren, fellowship is heaven and lack of fellowship is hell; fellowship is life and lack of fellowship is death; and the deeds that ye do upon the earth, it is for fellowship’s sake that ye do them.

William Morris, A Dream of John Ball, (concerning the Peasants Revolt of 1381)
“Coming attraction?”

Greetings from PLUTOPIA

Richland USA
Ozersk USSR
Plutonium bomb factory for New Mexico
Nuclear weapons resistance in Albuquerque

• Until about 1990, much is lost in the mists of time for me – others will know better
  • Albuquerque Peace and Justice Center (Dorie Bunting, Sally-Alice Thompson, others)
  •Branches of national groups/movements, e.g. Nuclear Freeze, Mobilization for Survival
  • Stop the War Machine?
  • Quaker Meeting(s)
  • Mennonites (e.g. Chuck Hoskings), other churches at times
  • Bursts of inspiration, journalism, action
  • Don Schrader
  • In any case, concern about nuclear weapon underlay much antiwar activism, here and everywhere.
Nuclear Weapons (NW) Work in New Mexico

- Los Alamos National Laboratory (LANL). Best-funded NW facility in the world. Currently adding thousands of people to build, operate plutonium warhead core (“pit”) factory; start-up cost ~$20 billion (biggest project in history of NM by far).
- Sandia National Laboratories (SNL). Second to LANL in funding globally.
- Kirtland Underground Munitions Maintenance and Storage Complex (KUMMSC)
- Defense Nuclear Weapons School (DTRA), KAFB
- NNSA Office of Secure Transportation (OST), national headquarters (Mesa del Sol)
- Waste Isolation Pilot Plant (WIPP), disposal of transuranic (TRU) waste from nuclear warhead work
"Now I am become Death, the destroyer of worlds."
J. Robert Oppenheimer (father of the atomic bomb) upon witnessing the first tests

― "Going over to another order" (8 slides)
From LANL's *National Security Science*, Summer 2021 issue: "The logo for Boese Brothers Brewery’s Dr. Strangehop IPA features Major Kong (actor Slim Pickens) atop the Los Alamos–designed Fat Man bomb. Coincidentally, Boese Brothers does have a Los Alamos location."

**Boese:** Bad, evil, wicked

What is this and the following but “going over to another order” (Plotinus; see James Hillman, *The Thought of the Heart and the Soul of the World*).

“Imaginary evil is romantic and varied; real evil is gloomy, monotonous, barren, boring. Imaginary good is boring; real good is always new, marvelous, intoxicating.” -- Simone Weil
BOMB CITY BOCK
BIG TEXAN BREWERY™
Modern U.S. ballistic missile warhead, late 1980s

**W88 Warhead for Trident D-5 Ballistic Missile**

1. The "Primary"
   Two-point, hollow-pit, fusion-boosted high explosive implosion

2. The "Secondary"
   Spherical, all-fissile, fusion-boosted radiation implosion

3. Radiation Case
   Peanut-shaped, channels x-rays from primary to secondary

4. Channel Filler
   Plastic foam plasma generator

5. Booster Gas Cannister
   Periodic replacement as tritium gas decays

- **High Explosive Lens**
  Two lenses drive primary implosion

- **Plutonium-239 Pit**
  Beryllium-reflected hollow pit

- **Tritium & Deuterium**
  Booster gas, fusion makes neutrons

- **Lithium-6 Deuteride**
  Lithium becomes tritium, fusion makes neutrons

- **Uranium-235 "Sparkplug"**
  Starts tritium generation and fusion in the secondary

- **Uranium-235 "Pusher"**
  Heat shield, tamper, and fission fuel (fission by all neutrons)

- **Uranium-238 Case**
  Fission by fusion neutrons only

Sources for illustrations: Wikipedia
Ground Based Strategic Deterrent (GBSD) “Sentinel” system. Deployment 2030-2037. A $85-140+ billion program plus warheads, according to DoD’s Cost Analysis and Program Evaluation (CAPE). 400 deployed, MIRV-capable (3 per missile for some fraction of 400, perhaps 200 as at present). To be armed with new W87-1 warheads (W87-0s initially). Some 250-1,500 new-pit W87-1s are desired, starting in 2030.

This is the origin of the 80+ pit per year by 2030 requirement.
Mark 21/W87 on single RV MM III bus, the present deployment configuration.

This RV is too wide and heavy for MIRVing MM III.

MM III in operation.

Result.
New silo-based missiles are to be the destination for new plutonium pits.

W87-0 in Mark 21 reentry vehicles (RVs), shown here in (retired) MX missile configuration. Circular error probable (CEP) is classified but say ~100 m, with “smart” fuzing. Yield is 300 kilotons (kt), with a 475 kt variant optional. It is pits of this type which LANL is tasked to make.

The US possesses ~ 540 (490?) W87s, in addition to ~780 W78s in Mark 12A RVs (CEP ~720 ft) for the same 450 Minuteman III missiles (400 deployed). At present, ~200 MM IIIs could be returned to multiple independent RV (MIRV) status with 3 W78 warheads each.
Skinnier, lighter, less accurate RV for the W78. Both the RV and the warhead are to be retired.
Minuteman III Mk-12 MIRV Warheads (W78s), tested in this configuration in the last administration.
Modern thermonuclear warheads have far larger energy yields than the primitive nuclear explosives used at Hiroshima and Nagasaki. One large nuclear explosion would utterly destroy all of Albuquerque, or Santa Fe.

The purpose: terror (de-terr-ence).
Some Key Takeaways

- LANL’s new production mission is a key enabling program for a hybrid war against now-combined Russia and China. The U.S. has already lost.

- LANL’s new mission is absurd, based on poor engineering and management, and is vulnerable to “off-ramps.” With help, LANL has failed at this mission four times before and is in the process of failing again, with increasing visibility.

- It will be impossible to meet climate, environmental, or social goals under conditions of empire and a nuclear arms race, for political, fiscal, and social reasons.

- Santa Fe and Northern New Mexico, and NM as a whole, are uniquely placed to make an enormous, material contribution to peace and social development.
## Median Household Income (MHI) for Three New Mexico Counties, 2018-2021

<table>
<thead>
<tr>
<th>Year</th>
<th>US</th>
<th>New Mexico</th>
<th>Rio Arriba</th>
<th>Santa Fe</th>
<th>Los Alamos</th>
<th>LA/RA</th>
<th>LA/SF</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>$73,030</td>
<td>$48,280</td>
<td>$41,511</td>
<td>$60,187</td>
<td>$124,947</td>
<td>3.01</td>
<td>2.08</td>
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<tr>
<td>2019</td>
<td>$78,250</td>
<td>$53,110</td>
<td>$44,579</td>
<td>$61,791</td>
<td>$122,001</td>
<td>2.74</td>
<td>1.97</td>
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<tr>
<td>2020</td>
<td>$76,660</td>
<td>$50,910</td>
<td>$47,400</td>
<td>$58,898</td>
<td>$111,724</td>
<td>2.36</td>
<td>1.90</td>
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<tr>
<td>2021</td>
<td>$76,330</td>
<td>$53,460</td>
<td>$47,042</td>
<td>$67,311</td>
<td>$134,050</td>
<td>2.85</td>
<td>1.99</td>
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</tbody>
</table>

From 2020 to 2021, MHI in Los Alamos and Santa Fe counties jumped by 20% and 14%, respectively; MHI in Rio Arriba declined by 1%. Data from 2022 is not yet available.
Median Home Prices, Santa Fe County and City

<table>
<thead>
<tr>
<th>Year</th>
<th>Santa Fe County</th>
<th>Santa Fe City</th>
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<tbody>
<tr>
<td>2000</td>
<td>$203,000.00</td>
<td></td>
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<tr>
<td>2001</td>
<td>$221,000.00</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>$249,450.00</td>
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<tr>
<td>2004</td>
<td>$316,661.00</td>
<td>$340,000.00</td>
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<tr>
<td>2005</td>
<td>$360,000.00</td>
<td>$398,000.00</td>
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<tr>
<td>2006</td>
<td>$461,313.00</td>
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<td>2007</td>
<td>$508,900.00</td>
<td>$371,000.00</td>
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<tr>
<td>2008</td>
<td>$480,000.00</td>
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<td>2009</td>
<td>$440,000.00</td>
<td>$329,500.00</td>
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<tr>
<td>2010</td>
<td>$490,500.00</td>
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<tr>
<td>2011</td>
<td>$386,250.00</td>
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<td>2022</td>
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<td>$595,000.00</td>
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<tr>
<td>2023</td>
<td>$808,050.00</td>
<td>$604,500.00</td>
</tr>
</tbody>
</table>
One way NNSA’s nuclear weapons “program of record” has evolved is in its cost, which has risen relentlessly in constant dollars since its inception.

Spending to the right of the 2023 line is that requested. No inflation estimates have been applied to these requests.
Is gradual democratic reform, as we usually think of it, possible? Probably not.

- Michael Glennon: The “Trumanite” institutions (DoD, NSC, and CIA, to which we can add NNSA) have all but conquered the “Madisonian” institutions.

- In Ray McGovern’s formulation, the “MICIMATT” (military-industrial-congressional-intelligence-MEDIA*-academic-think-tank) complex reigns supreme. (*most critical, per Ray)

- NNSA and its contractors have acquired unique political powers and immunities deriving from the existential nature of nuclear weapons. (For a glimpse of some see "Structural Features Making NNSA an Unusual Federal Agency," memo for VP Biden, 2016; there are many others).

It is possible to map out saner alternative policies, which we must in general do. Some of these may be adopted if we survive the POR and “business as usual” otherwise, let alone these doomsday recommendations.

We must in the meantime be realistic: the U.S. is currently on the road to nuclear war with Russia. Arms control may be impossible for a generation. Even absent war, the federal priorities implied in this proposal are deadly.
Some of the context (I)

• Multidimensional, multinational debt crisis; debt service now >$1 trillion on an annualized basis, no end in sight
• Multipolar breakdown in Congress
• An “aged out” president who is mentally incapable of campaigning for president or fulfilling presidential duties and who ALSO is almost surely guilty of bribery, AND an incompetent, highly-untrusted VP
• Leading R candidate that is vehemently hated by half the country and currently subject to “lawfare” attacks in numerous venues
• WH, CIA, DoD, Treasury which sponsored destruction of major European energy source in terrorist attack
• Widespread censorship and media consolidation and control
• Academic cooptation and control
• Huge investments in failed Ukraine war and its neo-Nazi government
• Lock-step support for Israeli genocide
Some of the context (II)

• Sharp rise of multipolar world, BRICS+, loss of US prestige (“the face of power”) and influence
• Loss of military dominance to both Russia and China in their spheres
• U.S. critical resource and supply chain crises
• U.S. critical de-skilling
• Past the global peak of oil production (2018), EROEI rising
• At, and soon past, the ragged US peak of oil production (2019 to now)
• Climate crisis of growing severity (so-called “drought” in NM) and potential irreversibility; severe weather events increasing
• Famine rising; migrations rising; habitat and species declining; “development” goals receding
• Collapse of arms control (nuclear, biological)
• In U.S., inequality, lack of economic security, homelessness rising
• Across the first world, prosperity is falling.
• Financial systems need “growth” to settle debts. Real growth is past.
Apart from the obvious, we need:

- **Action**, as well as **work** (see the essential Hannah Arendt, *The Human Condition*), action defined as having certain qualities and transformational potentials
- **Nonviolent** action and **conflict** (see Galtung’s summary of Gandhian conflict guidelines)
- **Ideological tolerance** (our best allies may be those with whom we mostly disagree, but can work with due to our mutual **respect** and **integrity**)
- **Respect**, the political analog to love, i.e. the equivalent of love in the public sphere
- Both **resistance** (the minor part) and a **constructive program** (encompassing Arendt’s **labor** and **work**, the major part of any movement; see next slide)
- Face-to-face and possibly wider organization levels, with certain desirable qualities, including **subsidiarity**
- **Roots**, or the acceptance of responsibilities, as in Weil, *The Need for Roots*, her prescription for rebuilding France after the Nazi defeat
- A vertical or spiritual dimension suffusing and transforming all of our activity (see following slide).
- **Practical wisdom** and **discernment**, to find our way out of the labyrinth made for us
Somewhat random elements and qualities of constructive programs for activists

- Self-organization, e.g. ability to acquire and manage real property as needed to stabilize our material foundation and/or be productive (solar energy, horticulture)
- We must acquire practical skills and business skills to survive, let alone thrive.
- A productive relationship with capital and those who have some; the villains are not the 90% or even, on a national basis, the 99%.
- A productive, rather than a consumer, orientation overall.
- A better balance between rights and responsibilities than we generally see; more of the latter and less of the former, both as to ideal and as to daily life.
- Service, on a small or also on a larger scale.
- Simplicity (see Ted Trainer).
- Continual education.
- Creative participation in the arts, or music (Blake: “A musician, an artist, an architect: the man or woman who is not one of these is not a Christian.”)
- We may wish to consider more extreme examples, e.g. the Beguines, as conditions change.
We have placed too much hope in political and social reforms, only to find out that we were being deprived of our most precious possession: our spiritual life. In the East, it is destroyed by the dealings and machinations of the ruling party. In the West, commercial interests suffocate it. This is the real crisis. The split in the world is less terrible -- The split in the world is less terrible than the similarity of the disease plaguing its main sections....

[Man’s] task on earth evidently must be of a more spiritual nature. It cannot be unrestrained enjoyment of everyday life. It cannot be the search for the best ways to obtain material goods and then cheerfully get the most of them. It has to be the fulfillment of a permanent, earnest duty so that one's life journey may become an experience of moral growth, so that one may leave life a better human being than one started it. It is imperative to review the table of widespread human values. Its present incorrectness is astounding. It is not possible that assessment of the President's performance be reduced to the question how much money one makes or of unlimited availability of gasoline. Only voluntary, inspired self-restraint can raise man above the world stream of materialism...Social dogmatism leaves us completely helpless in front of the trials of our times. Even if we are spared destruction by war, our lives will have to change if we want to save life from self-destruction. We cannot avoid revising the fundamental definitions of human life and human society....Is it right that man's life and society's activities have to be determined by material expansion in the first place? Is it permissible to promote such expansion to the detriment of our spiritual integrity?

If the world has not come to its end, it has approached a major turn in history, equal in importance to the turn from the Middle Ages to the Renaissance. It will exact from us a spiritual upsurge: We shall have to rise to a new height of vision, to a new level of life where our physical nature will not be cursed as in the Middle Ages, but, even more importantly, our spiritual being will not be trampled upon as in the Modern era.

This ascension will be similar to climbing onto the next anthropologic stage. No one on earth has any other way left but -- upward.
The special problem of colonization and post-democracy in New Mexico and the U.S. (I)

• Shall our colonial status be something to overcome, or something on which to capitalize?

• The psychological aspects of our post-citizen status, in our post-democracy, are not easy to see or overcome, individually or in a group. Few are truly free. Alexis de Tocqueville:

Thus, after having thus successively taken each member of the community in its powerful grasp and fashioned him at will, the supreme power then extends its arm over the whole community. It covers the surface of society with a network of small complicated rules, minute and uniform, through which the most original minds and the most energetic characters cannot penetrate, to rise above the crowd. The will of man is not shattered, but softened, bent, and guided; men are seldom forced by it to act, but they are constantly restrained from acting. Such a power does not destroy, but it prevents existence; it does not tyrannize, but it compresses, enervates, extinguishes, and stupefies a people, till each nation is reduced to nothing better than a flock of timid and industrious animals, of which the government is the shepherd.
The special problem of colonization and post-democracy in New Mexico and the U.S. (II)

- It can be difficult to mentally shed, or through political action pierce, the leaden blanket of fake democracy in which we live and work. We participate in all manner of fake political activity. This has become not just normal but normative. Imaginations are dulled, those who want to really accomplish something are pounded down.
- We have what amounts to a fake government, or one which wants to be real but seldom achieves it for structural reasons. Continuing this situation is a colonial habit.
- There is a great deal of “fake resistance” (Peter Neils), which inhabits the sphere where genuine action might be, but isn’t that. (next slide)
"Mass society, with its demand for work without responsibility, creates a gigantic army of rival siblings," in Alexander Mitscherlich's words....There is little in the sibling society to prevent a slide into primitivism, and into those regressions that fascism is so fond of. Eric Hoffer remarked:

Drastic change [has produced] this social primitivism...a new identity is found by embracing a mass movement...[the] mass movement absorbs and assimilates the individual...[who] is thereby reduced to an infantile state, for this is what a new birth really means: to become like a child. And children are primitive beings--they are credulous, follow a leader, and readily become members of a pack...Finally, primitivism also follows when people seek a new identity by plunging into ceaseless action and hustling. It takes leisure to mature. People in a hurry can neither grow nor decay; they are preserved in a state of perpetual puerility.

...It is hard in a sibling society to decide what is real. We participate in more and more nonevents. A nonevent transpires when the organizer promises an important psychic or political event and then cheats people, providing material only tangentially related. An odd characteristic of the sibling society is that no one effectively objects. Some sort of trance takes over if enough people are watching an event simultaneously. It is a contemporary primitivism, "participation mystique," a "mysterious participation of all the clan."

Kierkegaard once, in trying to predict what the future society would be like, offered this metaphor: People will put up a poster soon saying, Tonight John Erik will skate on thin ice at the very center of the pond. It'll be very dangerous. Please come. Everyone comes, and John Erik skates about three inches from shore, and people say, "Look, he's skating on thin ice at the very center of the pond!" A lecturer says: On Friday night we will have a revolution. When Friday night comes, the hall is filled, and the radical talks passionately and flamboyantly for an hour and a half; then he declares that a revolution took place here.