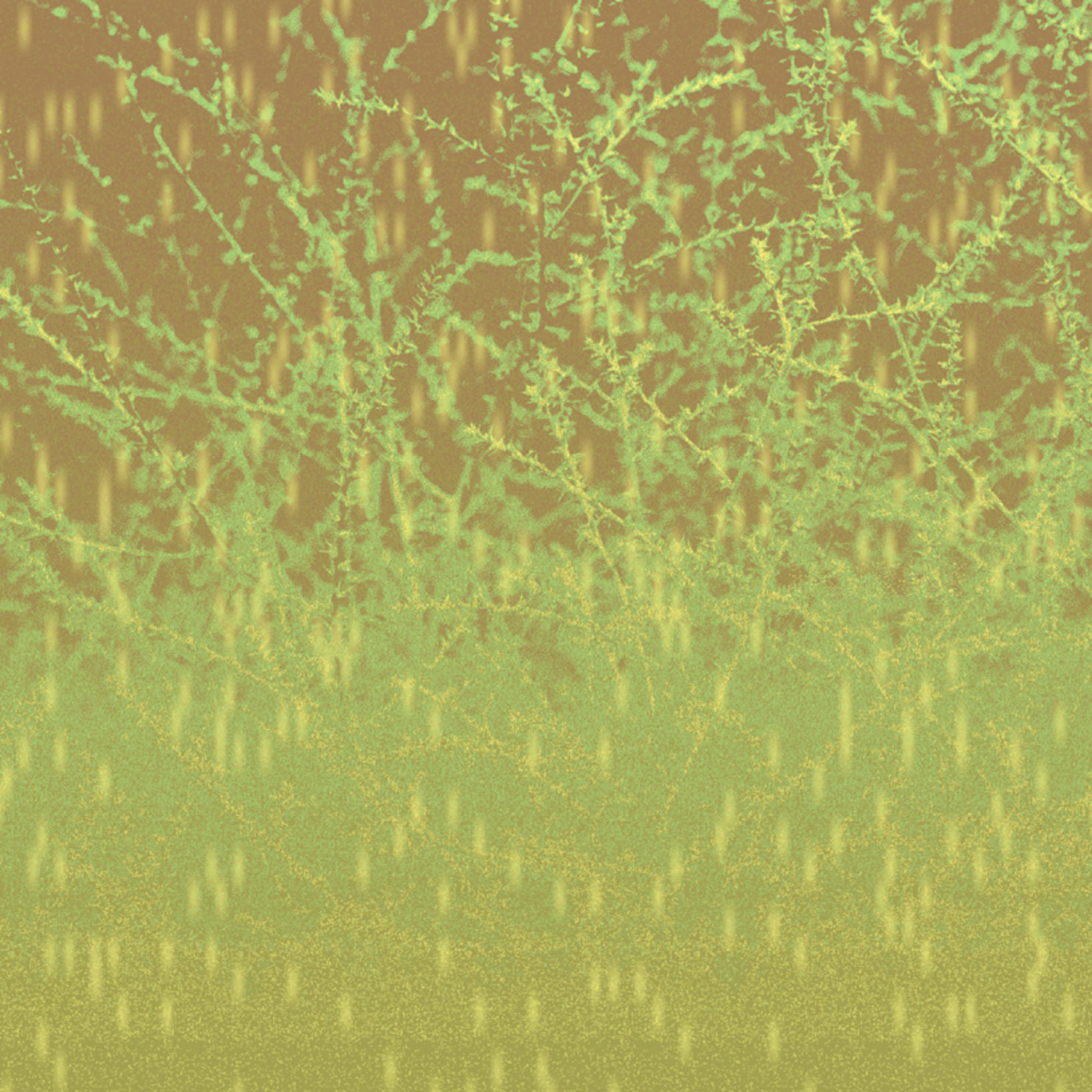
THE NATIONAL COLD WAR MONUMENTS AND ENVIRONMENTAL HERITAGE TRAIL

A DESIGN CHARRETTE

NATIONAL TLC SERVICE



WELCOME

Thank you for participating in the first charrette for the prospective National Cold War Monuments and Environmental Heritage Trail, organized by the National Toxic Land/Labor Conservation Service ("National TLC Service"). This event broadly considers local and regional involvement in the Cold War using the format of the charrette. A charrette (pronounced shuh-ret) is a collaborative design workshop in which a group of people and designers draft solutions to a problem or issue. Through discussion and collaborative mapping, we will envision a potential Illinois route of Cold War commemoration and action.

Our general goals for the workshop are to provide a channel for local knowledge and experience to shape public discussion about how the Cold War will be commemorated; identify places in Illinois that have been involved in or affected by nuclear technologies; propose markers and monuments for the Trail that explore multiple perspectives on the Cold War; and raise public awareness about the continued presence of nuclear weapons, materials, and wastes in our everyday lives, lands, and bodies.

This workbook provides important information about the event and materials you will need during the event:

- A chart of charrette activities and work plan for the day
- Activity prompts to be used during the event
- Additional resources about Cold War sites in Illinois
- Sketch paper, maps, and a release form

We invite you to peruse these materials before the workshop. You may wish to prepare responses in advance, or hold off and simply bring the workbook on the day of the charrette.

We look forward to seeing you on Saturday, October 26th (9-5pm, with breaks for catered lunch and snacks) at the Figure One Gallery in downtown Champaign. The address is 116 North Walnut, Champaign, IL 61820.

If you have any questions that you would like addressed before the event, please do not hesitate to contact National TLC Service co-directors Sarah Kanouse (sarah.kanouse@gmail.com) or Shiloh Krupar (shilohrkrupar@gmail.com).

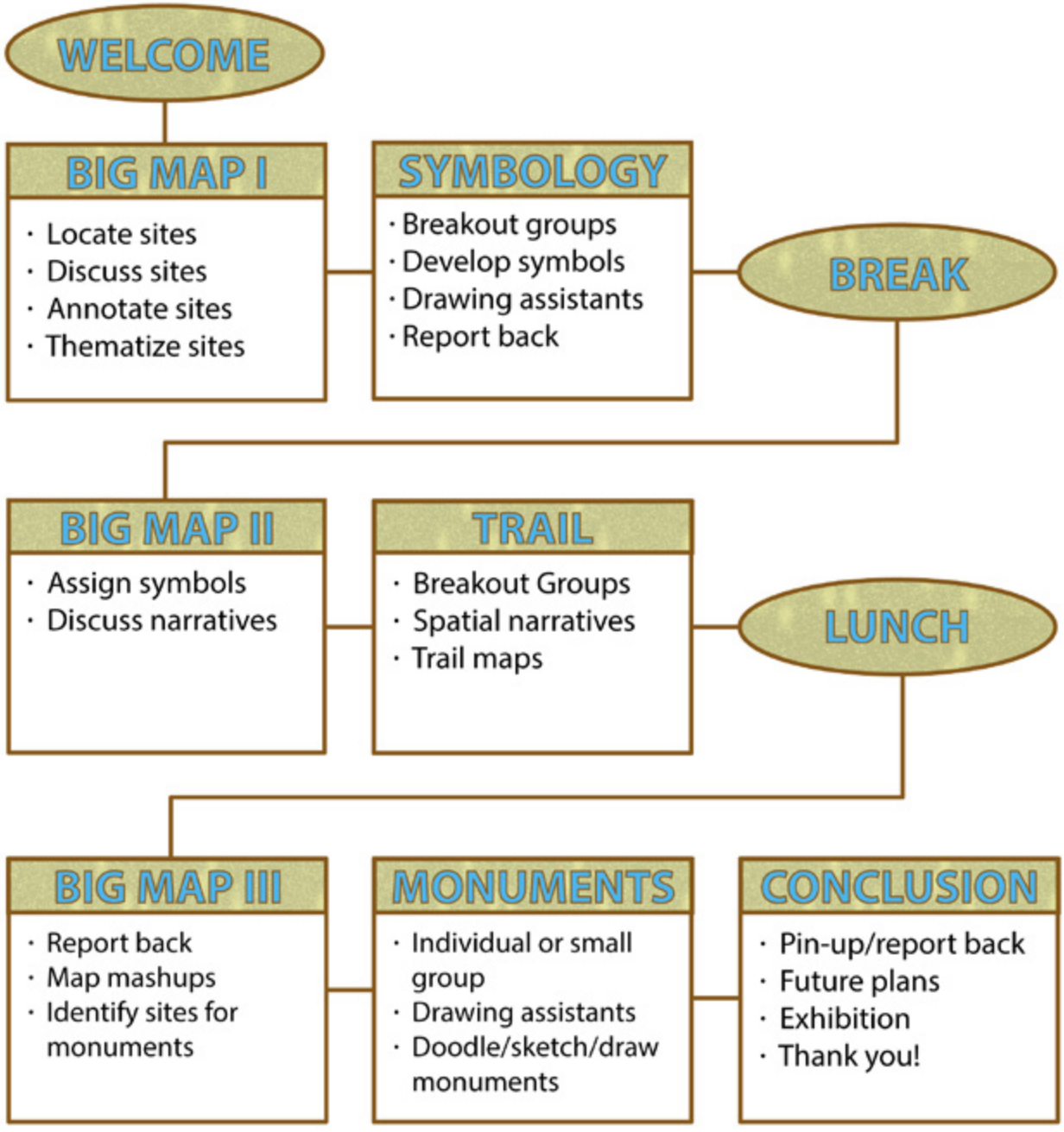
Sincerely,

The National TLC Service

RULES OF PLAY

The Cold War, atomic weapons complex, radioactive waste, and civilian uses of nuclear technology remain very complex and highly controversial issues. We have intentionally assembled a group of individuals with diverse knowledge, opinions, and experience on the topic of the atomic. This means that we will not always agree and in fact may disagree strongly at times. For us to learn from those disagreements requires that we observe the following ground rules:

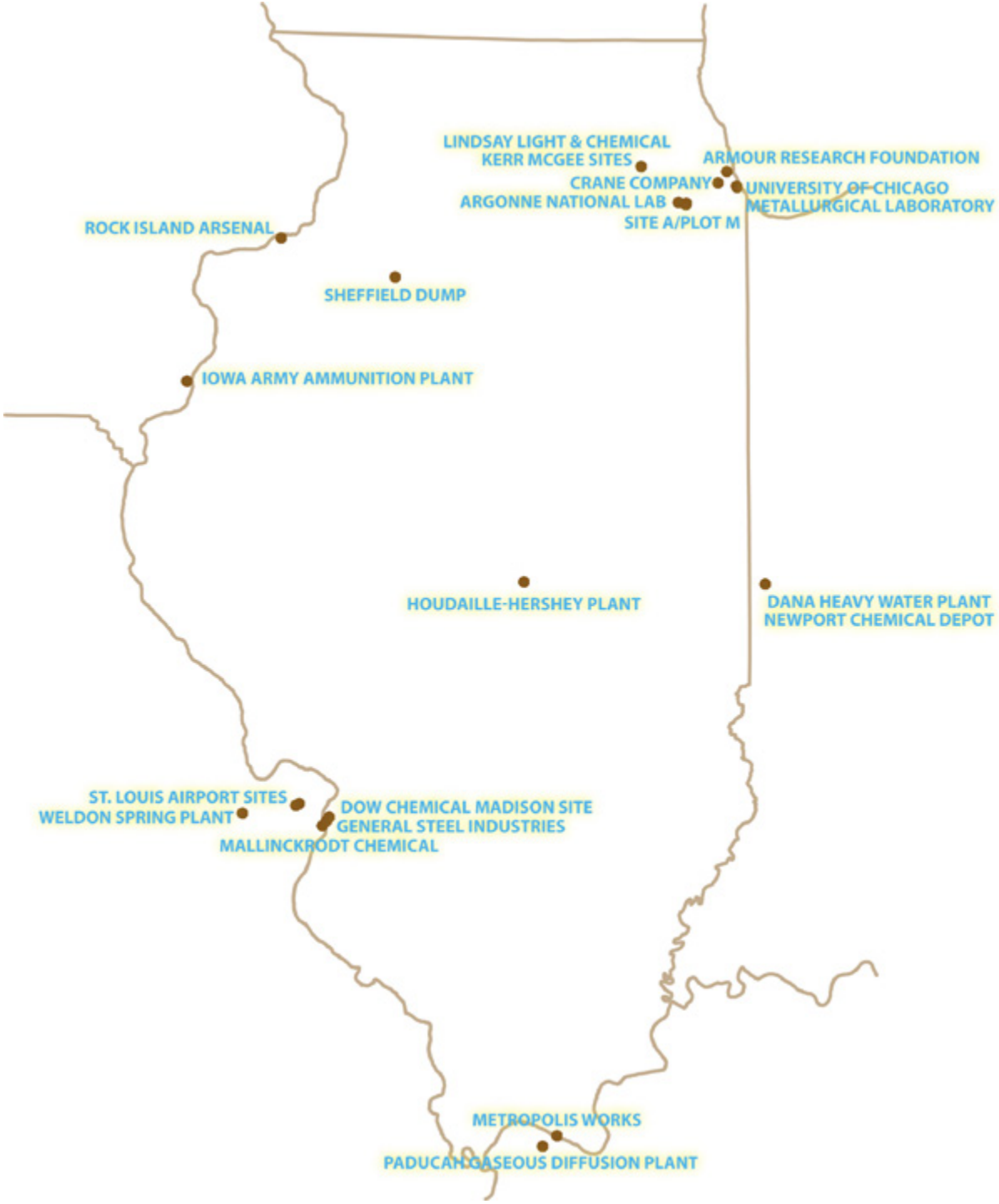
- Listen openly and nonjudgmentally
- Make room for other voices
- Discuss ideas and proposals, not the person
- Fewer words, more doodles
- Be present for the entire charrette: cell phones on vibrate and avoid nonessential calls


WELCOME
BIG MAP I
· Locate sites
· Discuss sites
· Annotate sites
· Thematize sites
SYMBOLOGY
· Breakout groups
· Develop symbols
· Drawing assistants
· Report back
BREAK
BIG MAP II
· Assign symbols
· Discuss narratives
TRAIL
· Breakout Groups
· Spatial narratives
· Trail maps
LUNCH
BIG MAP III
· Report back
· Map mashups
· Identify sites for monuments
MONUMENTS
· Individual or small group
· Drawing assistants
· Doodle/sketch/draw monuments
CONCLUSION
· Pin-up/report back
· Future plans
· Exhibition
· Thank you!

WHERE IS THE COLD WAR?

MAPPING ILLINOIS ATOMIC GEOGRAPHIES

The map on the next page features twenty of the most significant sites of atomic research, production, and contamination in Illinois and adjacent states. Thumbnail descriptions of these sites follow on subsequent pages, with space for notes and additions. Please share your knowledge of Cold War sites and affected areas by adding and annotating this map.


LINDSAY LIGHT & CHEMICAL
KERR MCGEE SITES
ARMOUR RESEARCH FOUNDATION
CRANE COMPANY
UNIVERSITY OF CHICAGO
METALLURGICAL LABORATORY
ARGONNE NATIONAL LAB
SITE A/PLOT M
ROCK ISLAND ARSENAL
SHEFFIELD DUMP
IOWA ARMY AMMUNITION PLANT
HOUDAILLE-HERSHEY PLANT
DANA HEAVY WATER PLANT
NEWPORT CHEMICAL DEPOT
ST. LOUIS AIRPORT SITES
WELDON SPRING PLANT
DOW CHEMICAL MADISON SITE
GENERAL STEEL INDUSTRIES
MALLINCKRODT CHEMICAL
METROPOLIS WORKS
PADUCAH GASEOUS DIFFUSION PLANT

Henry Moore sculpture, Nuclear Energy. *National TLC Photo.*

Plot M marker. DOE Photo

METALLURGICAL LABORATORY

CHICAGO, IL

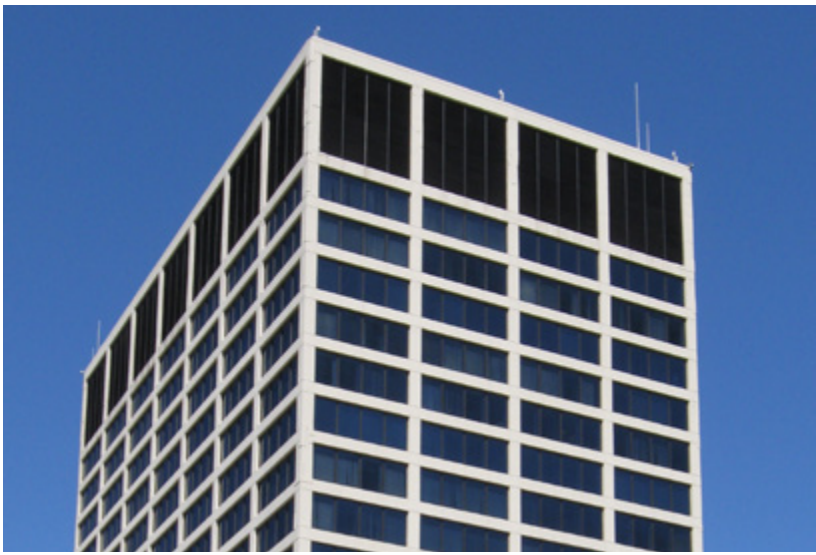
The "Met Lab" was the cover name of an experimental nuclear physics program instrumental in the early part of the Manhattan Project. Italian Physicist Enrico Fermi produced the first self-sustaining nuclear chain reaction underneath the University of Chicago's Stagg Field on December 2, 1942. This event is commemorated by a plaque and the Henry Moore sculpture "Nuclear Energy." Fermi's "pile method" became the foundation of the X-10 graphite reactor at Oak Ridge. University of Chicago chemist Glenn Seaborg was the first to separate plutonium from the results of this process. The University of Chicago Chemistry Building is now a National Historic Landmark, with a plaque and interpretive display.

SITE A/PLOT M

COOK COUNTY, IL

Soon after Enrico Fermi's first experiments at the University of Chicago were conducted, it became clear that the lab's location in an urban area posed safety problems. In 1942, the U.S. Army Corps of Engineers leased 1,025 acres of land in the Palos Forest Preserve for the construction of a more isolated facility. Site A (named for the surrounding Argonne Forest) was the location of two early reactors, Chicago Pile 2 and Chicago Pile 3. Both were moved or decommissioned and demolished by 1956. Radioactive wastes from Site A activities were buried at Plot M from 1943-1949. Plot M was decommissioned and encased in concrete in 1956. Site A and Plot M were returned to the Palos County Forest Preserve district and are currently open to the public. The DOE Office of Legacy Management continues to inspect the site annually and monitors surface and groundwater every three to five years.

Argonne National Laboratory. National TLC Photo.



Illinois Institute of Technology Research Institute. Photo by Joe Ravi, CC-BY-SA 3.0

ARGONNE NATIONAL LABORATORY

DUPAGE COUNTY, IL

Based on Manhattan Project research conducted at Site A, Argonne National Laboratory was formally chartered in 1946 to conduct nuclear weapons, energy, and medical imaging research. It moved to its present site, six miles north of the Palos Forest Preserve, in 1954. Argonne engineers have designed 37 different nuclear reactors and built and operated 27. During the 70's and 80's Argonne National Lab hosted weapons designers from Los Alamos National Lab and Sandia National Lab, with whom they worked to develop various nuclear weapons including the neutron bomb. Argonne National Laboratory is a partnership between the Department of Energy and the University of Chicago.

ARMOUR RESEARCH FOUNDATION

CHICAGO, IL

Licensed by the Atomic Energy Commission to conduct atomic research and heavily funded by the US Army, the Armour Research Foundation conducted experiments on the survivability of nuclear war and the impact of atomic bombs on the environment. The foundation also contributed to a bizarre plan to detonate a bomb on the face of the moon in order to boost the morale of the American people, who supposedly felt dejected by the Soviet Union's early lead in the Space Race. The Armour Research Foundation has evolved into a research institute in the Armour College of Engineering at the Illinois Institute of Technology.

Kerr-McGee Superfund Site. National TLC Photo.

Weldon Spring disposal cell. National TLC Photo

LINDSAY LIGHT AND CHEMICAL CO.

WEST CHICAGO, IL

Once the world's largest producer of rare earth elements, the Lindsay Light and Chemical Company and successor Kerr-McGee extracted radioactive thorium, radium, and uranium in West Chicago from 1923-1973. At its height, Lindsay produced 90% of all thorium in the United States; about half of its output was sold to the US government for defense purposes. These activities resulted in the radioactive mill tailings that contained residual levels of thorium, radium, and uranium, as well as certain other insoluble metals that were piled on-site or dumped in an adjacent open landfill. Over the decades, this slag was used as fill dirt in the construction of surrounding homes. By the late 1980s, the closed facility had fallen into disrepair, and the tailing pile—dubbed "Mount Thorium"—was making people very sick. Under pressure from community activists, the EPA eventually ordered extensive excavation and removal of contaminated soil.

WELDON SPRING URANIUM FEED PROCESSING PLANT

ST. CHARLES COUNTY, MO

The Weldon Spring Uranium Feed Processing Plant was created by the Atomic Energy Commission (AEC) in 1956 on the site of the World War II-era Weldon Spring Ordnance Works. The plant processed raw uranium into milled yellowcake from 1956-1967, when it was returned to Army control and used to manufacture Agent Orange. Cleanup of the site was cursory until 1987, when it was added to the National Priorities List because of contaminated groundwater. The Department of Energy, successor to the AEC, constructed a 45-acre disposal cell rising six stories above the surrounding landscape to permanently store 1.48 million cubic yards of waste. The surrounding area was re-landscaped into native prairie, and the disposal cell affords panoramic views of suburban St. Louis. The EPA continues to monitor the site for groundwater contamination.

Mallinckrodt Pharmaceuticals, St. Louis. National TLC Photo

Honeywell Metropolis Works. National TLC Photo

MALLINCKRODT CHEMICAL COMPANY

ST. LOUIS, MO

Mallinckrodt Chemical Company's 45-acre plant in downtown St. Louis was a major processor of uranium for the U.S. nuclear weapons program. Now known as Mallinckrodt Pharmaceutical, the company boasts on its website that it purified all of the uranium oxide that was used in Enrico Fermi's first Manhattan Project research. Uranium processing continued until 1957 and involved multiple buildings in the surrounding area that now comprise the "St. Louis Downtown Sites" cleanup project, supervised by the Army Corps of Engineers. A $2 billion global company now headquartered in Dublin, Mallinckrodt still operates the downtown St. Louis facility and is involved in pharmaceuticals and medical radiology.

METROPOLIS WORKS

METROPOLIS, IL

Opened in 1958, Metropolis Works converts milled uranium ore ("yellowcake") into uranium hexafluoride, an essential ingredient in the enrichment process. Currently operated by the Honeywell Corporation, the Metropolis plant is the last producer of uranium hexafluoride in the United States and is located across the Ohio River from the Paducah Gaseous Diffusion Works. In recent years, the plant has been dogged by safety and labor concerns. Honeywell recently reopened the facility after a year-long closure for seismic and tornado improvements; it had also previously locked out workers for 13 months during disputes over insurance, safety, understaffing, and subcontracting at the plant.

Paducah Gaseous Diffusion Plant. National TLC Photo.

Concrete Silos at Newport Chemical Depot. DOD Photo

PADUCAH GASEOUS DIFFUSION PLANT

KEVIL, KY

Built on the site of the former Kentucky Ordnance Works, the Paducah Gaseous Diffusion Plant (PGDP) opened in 1952 to enrich uranium for military reactors and nuclear weapons. Slated for deactivation, it is the last government-owned enrichment plant in the United States. Testimony from sick PGDP workers and their families was instrumental in the creation of the Energy Employees Occupational Illness Compensation Program Act, and the Labor Department announced a $500 million compensation plan for former workers in 2009. High levels of uranium and other toxics resulted in the placement of the site and its surroundings on the National Priorities List in 1994. Due to contamination, residents in a four-mile radius of the plant are provided drinking water. The plant is located 3.5 miles from the Ohio River and is surrounded by a buffer zone operated by the West Kentucky Wildlife Management Area that is open for hunting and fishing.

NEWPORT CHEMICAL DEPOT DANA HEAVY WATER PLANT

NEWPORT, IN

Opened in 1942 as the Wabash River Ordnance Works, the Newport Chemical Depot produced various chemical weapons for the Department of Defense from the 1940s-1960 and stored VX nerve gas on site until mid-2006, when stockpiles were destroyed in accordance with international treaties. In addition, the Dana Heavy Water Plant was secretly built in the 1940s and operated until 1957, producing heavy water for the production of weapons-grade plutonium at the Savannah River Site. The Newport Chemical Depot closed in 2005.

Iowa Army Ammunition Plant. National TLC Photo.

Rock Island Arsenal Museum. National TLC Photo.

IOWA ARMY AMMUNITION PLANT

BURLINGTON, IA

The plant was established in 1941 as a World War II ordnance facility. Production ended with the conclusion of the war in 1945, but resumed in 1949 and has continued into the present. From 1947-1975, the Atomic Energy Commission (AEC) used the facility for atomic weapons production, and employed radioactive materials such as depleted uranium (DU), enriched uranium, plutonium, tritium, and polonium-210. The firing area was used to test DU weapons from 1965-1973. When the AEC left the site, contaminated soil from this area was disposed at the Sheffield facility in Illinois. Today the facility is owned by the government and operated by American Ordnance Company. Added to the National Priorities List in 1990, the Iowa Army Ammunition Plant is undergoing assessment for cleanup by the US Army Corps of Engineers, supervised by the US EPA, Iowa Department of Natural Resources, and Iowa Department of Public Health.

ROCK ISLAND ARSENAL

ROCK ISLAND, IL

Located on a 946-acre island in the Mississippi River, the Rock Island Arsenal has been an important base for the US Army since 1816. Built on what was then the western frontier, the fort was instrumental as a military base and served as an internment camp for Native American prisoners of war during the period of Westward Expansion. The first permanent structure on the island was also a prison that housed thousands of Confederate soldiers during the Civil War. Since the 1880s, the Arsenal has been an active producer of munitions and military equipment. During and after the Manhattan Project, the plant produced electrical and electromechanical components for the nuclear bomb. Still in operation, the Rock Island Arsenal produces a range of munitions and is currently licensed by the Nuclear Regulatory Commission to decommission depleted uranium weapons. It is the largest US government-owned military manufacturer in the country.

Crane Company Headquarters, Chicago. Photo by TonyTheTiger.

Former site of Houdaille-Hershey.
Image by Google, Digital Globe, USDA Farm Service Agency.

CRANE COMPANY

CHICAGO, IL

In 1943, engineers working for the Crane Company developed and tested valves capable of withstanding highly corrosive uranium hexafluoride gas used in the enrichment process. The company manufactured the valves for the next twenty years. Crane expanded rapidly in the 1980s and moved its Illinois manufacturing operations to Joliet. Now a $2 billion industrial conglomerate based in Connecticut, the company's urban Chicago plants are vacant or have been redeveloped for other purposes.

HOUDAILLE-HERSHEY PLANT

DECATUR, IL

During the Manhattan Project, the Houdaille-Hershey Plant was involved in the secret production of equipment used in the enrichment of uranium at the K-25 secret plant in Oak Ridge, Kentucky. Constructed to manufacture automobile bumpers, the factory plated the interior of pipes with a nickel-powder barrier that could withstand the pressure and temperature of the gaseous diffusion enrichment process. The site is now occupied by the transportation and trucking company MCS Logistics.

Former headquarters of General Steel Industries. Photo by Liaws, CC-BY-SA-3.0

Former site of Dow Metal Products. National TLC Photo.

GENERAL STEEL INDUSTRIES

GRANITE CITY, IL

From 1958-1968, General Steel Industries used betatron particle accelerators at its Granite City facility to evaluate the quality of uranium metal ingots produced at the Atomic Energy Commission's Weldon Springs (Missouri) feed materials plant. Betatron testing slowed considerably when the Weldon Springs factory closed in 1966, and the facility was purchased by Granite City Steel in 1972. Covered under the Energy Employees Occupational Illness Compensation Program Act (EEOICPA) and Formerly Utilized Sites Remedial Action Program (FUSRAP), cleanup of the betatron buildings was completed by the Department of Energy in 1992. The site today is leased by various light manufacturing companies.

DOW METAL PRODUCTS

MADISON, IL

In 1957, Dow Metal Products Division of Dow Chemical Company entered into a subcontracting agreement with Mallinckrodt Chemical Works to produce nuclear reactor fuel rods at a 735-acre plant in Madison, Illinois. Research and production continued until the early 1960s, and the facility was sold in 1969. Radiological surveys conducted in 1989 discovered uranium contamination in some of the buildings, and the facility was declared cleaned up by the Army Corps of Engineers in 2000. Still in use for metals machining, the site has been monitored by the DOE Office of Legacy Management since 2003.

Hazelwood Interim Storage Site, Latty Avenue. National TLC Photo.

US Ecology, Sheffield LLRW Facility. National TLC Photo.

ST. LOUIS AIRPORT SITES

ST. LOUIS AND HAZELWOOD, MO

A 22-acre site was acquired by the Manhattan Engineer District/Atomic Energy Commission in 1946 for the storage of radioactive wastes generated by uranium processing at the Mallinckrodt Chemical Company in downtown St. Louis. Radioactive metal scrap and drums of waste were stored in uncovered piles from 1947 to the mid-1960s, when they were transferred one half mile to the Hazelwood Interim Storage Site. Much of the waste was transferred for reprocessing during the 1960s, but contaminated soils and building materials accumulated in a pile at Hazelwood for several decades. The US Army Corps of Engineers assumed responsibility for cleanup in the 1990s, under EPA supervision, and anticipates completion in 2013. Once cleanup is completed, the site will revert to the Department of Energy for long-term management.

SHEFFIELD LOW-LEVEL RADIOACTIVE WASTE STORAGE FACILITY

BUREAU COUNTY, IL

The Sheffield Facility was created in 1967 and accepted low-level radioactive waste (LLRW) through 1978, including shipments of uranium-contaminated soil from the Iowa Army Ammunition Plant's munitions testing area. Two hazardous chemical waste disposal fields are also located at the facility, which is operated by the private company, US Ecology. A total of 3.2 million cubic feet of radioactive waste was placed in containers and buried in 21 unlined trenches. Several trenches collapsed, allowing surface water rapid access through the trenches to the shallow aquifer below. After a ten-year lawsuit by the state of Illinois, US Ecology eventually agreed to maintain a 170-acre buffer zone around the facility and to install clay caps above the LLRW trenches. Radioactive tritium has been found in nearby Trout Lake and several small streams in the area. The site is monitored by the Illinois Emergency Management Agency.

Former Nike Missile launch area, Jackson Park, Chicago. National TLC Photo.

Former DEW Line training facility, Streator, IL. National TLC Photo.

PROJECT NIKE

MULTIPLE SITES

Project Nike was the United States' first operational anti-aircraft missile program, with operational missiles on alert from 1953-1974. Missile installations ringed every major city and strategic center; a total of more than 200 were built. Each battery consisted of three parts separated by about 1000 feet: a radar station to detect incoming bombers, an underground missile storage area, and an administrative/barracks area. Three generations of Nike missiles were produced as rocket technology developed. The last generation was predominantly armed with nuclear payloads and theoretically capable of intercepting Intercontinental Ballistic Missiles (ICBMs).

DEW LINE

MULTIPLE SITES

The Distant Early Warning (DEW) Line was a series of radar stations in the high arctic designed to detect a Soviet invasion. Although almost immediately rendered obsolete by the advent of ICBMs, it was operational from 1954-1985. Decommissioning the network left behind enormous contamination in the arctic, primarily from PCBs. After decades of denying responsibility, the US government is now paying for a fraction of the Canadian-led cleanup effort. In addition to the actual radar facilities in the high arctic, a series of training stations and radar facilities were built in the continental United States, including several in Illinois, that were largely abandoned by the mid-1970s.

A COLD WAR SYMBOLOGY

MAKING SENSE OF ILLINOIS' ATOMIC GEOGRAPHIES

Map symbols help make relationships between sites clear and establish an overall tone or position for the map. They can also oversimplify complex realities in which relationships are evolving, overlapping, and sometimes contradictory. How would you classify the sites on the previous map - both the ones that came pre-printed and ones that you added to it - in ways that account for the evolution of Illinois atomic geographies? How would you use color and imagery to mark these sites and communicate these relationships?

During the charrette, you will have an opportunity to consult with designers and brainstorm icons for Cold War sites, functions, and affected areas.

SYMBOLOGY SKETCHPAD

SPATIAL NARRATIVES

TELLING COLD WAR STORIES THROUGH PLACE

Commemoration of the Cold War has accelerated in recent years with the opening or expansion of several museums, including the Smithsonian-affiliated National Museum of Nuclear Science and History. In June, 2013 the US House of Representatives approved a bill that would create a Manhattan Project National Historical Park. Existing commemorative efforts present particular narratives of the Cold War and contain themes that can be characterized as 'dominant' or 'emergent' depending on their relative strength. One goal of this workshop is to create more expansive and inclusive Cold War commemoration by reflecting on existing narratives and finding points of intersection or contradiction between them.

HISTORY

DOMINANT THEME

Treatment of the Cold War as "History" is ever-present. It is framed as an era that has passed—an era that is rife with contradictions, bygone mentalities, and stories of heroes and villains. Timelines of "close calls" and the gradual reduction of hostilities prior to the collapse of the Soviet Union dominate Cold War public culture and commemoration. Modes of presentation typically offer a general picture of the period and zoom in on particular events and flashpoints, such as the U-2 affair, Cuban Missile Crisis, or the building of the Berlin Wall. A popularly-consumed subfield is that of covert war and operations, from exposés of the intelligence community to espionage stories and spy paraphernalia. Fascination with "big science and technology"—whether directly for war, such as the arms race or missile gap, or for so-called peaceful missions, such as "atoms for peace" or the euphoria over the moon landing—also pervades historical accounts of the period (see adjacent theme). Ideological battles between "communism" and "authoritarianism" versus "capitalism" and "democracy" contextualize the historical and technological artifacts of the era, downplaying the diversity of opinions and positions domestically and internationally. Of lesser historical focus is the blacklisting, xenophobia, and mandatory loyalty oaths that mark the era. When such history appears, it is to champion the common people as the basis of reason in a frenzied era wherein politics has spun out of control. For the most part, however, deterrence—peace through mutually-assured destruction—and the Cold War bipolar distribution of power are presented as a rational, albeit outmoded (even nostalgic) organization of world politics. The overall effect is that the Cold War is consumed as a distant and largely irrelevant era.

SCIENCE AND TECHNOLOGY

DOMINANT THEME

A closely related theme of Cold War commemoration is the history of science and technology. Narratives of progress, innovation, and collaboration, punctuated with dramatic personalities, comprise this popular commemorative field. Combining "celebratory" and "objective" tones, such narratives mobilize historical evidence and anecdotes to show the irrefutable progress of science and society. Examples include heroic accounts of scientific discovery populated with great men (and sometimes Marie Curie), and detailed timelines of pure science and technological advancement untainted by political concerns, even under intense political pressure. Displays in this genre build toward conclusions that progress will continue, assuring viewers that nuclear weapons are now more technologically advanced and environmentally sustainable than ever before; that the "end state" of nuclear technology is total safety; or that the American lifestyle has improved through nuclear science and the civilian application of Cold War technologies. This progressive understanding of science and technology sheds a positive light on the present and future, regardless of debate and controversy. The language and presentation of evidence appear to be value-neutral and all-encompassing, leaving little room for alternative histories and opposing views. Ethical and scientific debates within the history of the technology are usually absent from the popular narratives presented in museums and heritage sites. Knowledge of the technology developed by workers (rather than inventors) and an accounting of environmental and health effects are conspicuously missing. Where ecological contamination is undeniable, cleanup, containment, and monitoring activities extend the narrative of scientific progress into an indefinite future. Elements generally omitted from dominant history of science narratives strongly overlap with other subordinante themes listed below, such as industrial knowledge of materials cultivated in nuclear science, the development of occupational exposure standards based on bomb survivor data, or the relationship between the field of ecology and the tracings of radioactive isotopes through natural "systems."

MOBILIZATION AND SACRIFICE

DOMINANT THEME

Another widespread strategy of Cold War commemoration is national mobilization and sacrifice for the war effort. This takes a range of expressions, most notably the militarization and preparedness of civilian life, including displays of "duck and cover" drills in the classroom, reconstructed bomb shelters, and posters instructing civilians to ration or consume particular goods. Such narratives martial nostalgia and wonder for an age of innocence now lost to us. Model citizens and model soldiers—key figures in this commemorative field—impart lessons in duty and sacrifice by not asking questions and instead trusting in the greater good of the nation. The symbolic figure of the "Cold War Warrior," in particular, honors those who have sacrificed their health and safety to an extended mobilization for war, while doing little to assist actual sick workers. A subordinate theme acknowledges the sacrificial expropriation of land for military production and weapons testing, as "national sacrifice zones" that enable the nation to remain ready for future mobilization. This secondary theme has received increasing attention in contemporary displays about counterterrorism efforts, wherein Cold War-era industries and technologies transition to safekeeping national security in a global world. When ecological damage is acknowledged, it is usually presented as a regrettable consequence of imperfect knowledge that has since evolved to mitigate and contain the risk. Effectively, vigilant preparedness and personal and ecological sacrifice are framed as necessary, ongoing, and manageable because Cold War animosities have evolved into the all-pervasive, indefinite threat of global atomic terrorism.

PROTEST AND CONTROVERSY

EMERGENT THEME

An additional motif focuses on protests, controversies, and opposition to the Cold War. This theme is only rarely presented autonomously from dominant narratives, and its presence often signals a token commitment to represent "both sides" of the issue. Protest narratives work to contain mobilization within the nation—ignoring transnational connections—and present opposition in polarizing terms, such as anti-nuke versus pro-nuke (rather than, for example, workers versus management). Domestic activism against war are typically presented as instances of "NIMBYism"—local efforts to reject the location of nuclear activities rather than tactical campaigns situated within a larger mobilization against militarization. More cosmopolitan accounts often focus on protest as fashion—counter-culture clothing, hand-painted signage—and feature images of ritualistic actions, such as stepping across property lines, circling hands, standing in the way of military technology or infrastructure. The religious and secular aspects of protest are sometimes explored, such as the presence of Tibetan monks, Catholic nuns, or Native leaders among the ranks of protestors. Presented predominantly through archival photographs and artifacts, this theme leaves many loose ends in terms of the relationship between historical protest and contemporary controversy. One undeveloped link is the surveillance and persecution of protest efforts past and present.

INDUSTRIAL HERITAGE

EMERGENT THEME

A theme underdeveloped in official Cold War commemoration is the involvement of civilian industries and labor in the nuclear arms/nuclear energy sectors. When commemorated at all, the industrial aspects of atomic production are presented as both qualitatively distinct and physically distant from the narrative of scientific advancement found in museums of nuclear technology. Atomic workers may be referenced through displays of clothing and safety gear, machinery, and operations manuals, but they remain anonymous relative to heroic scientists and engineers. Displays of machines used by workers present obsolete equipment as nostalgic curiosities, not technological advances. Photographs are often uncaptioned and celebrate mass mobilization rather than individual skill. An emphasis on everyday life—in the form of reconstructed housing or period entertainment—further downplays the knowledge workers bring to their jobs, including knowledge of specific occupational and environmental health risks and an awareness of a profit-driven subcontracting system that often rewards management for risk-taking. Unions are conspicuously absent from the standard narrative, as is any reference to strikes, whistleblowers, and diversity of opinion among the workforce. Also missing is the wide range of civilian companies involved in military subcontracting during the height of the Manhattan Project and Cold War.

TERRA/TERRITORY

EMERGENT THEME

This represents the most abstract yet simultaneously "earthbound" of Cold War themes. As a largely unrealized strategy of Cold War commemoration, "terra/territory" highlights ambiguities and inequities with respect to the land and material impacts of the Cold War. Such ambiguities might include conflicting accounts of the quantity and dispersion of fallout from atmospheric testing as well as jurisdictional black holes, where no government agency or corporate contractor assumes responsibility for environmental cleanup. Atomic inequities are numerous, from the mining of radioactive materials to the disposition of wastes for which Indigenous communities are disproportionally targeted. Figures of toxicity visually evoke this narrative, including the ubiquitous waste drum or mutant glow, and it is marked by an affect of dread or avoidance (i.e., the desire to abandon or distance hazardous sites and waste). Similarly, the terra/territory motif draws attention to the way toxicity frustrates attempts to contain it; it crosses jurisdictional lines; transgresses physical boundaries between land, air, and water; permeates bodies; and produces intergenerational mutations. Essentially, all forms of autonomy are put in question: the physical integrity of individuals and their bodies, the sanctity of private property, the sovereignty of indigenous communities, and the passage of one generation to the next. From the opposite direction, this motif might also accentuate ambiguity of a planetary vision, whereby the "whole Earth" image championed by early environmentalists was enabled by Cold War rocket technology and today's satellite geosurveillance is domesticated into Google Maps. Yet a third potential angle of this theme might be site sacralization, such as the annual pilgrimage to the Trinity Site to mark the first detonation of a nuclear device.

METAPHOR COMMONS

COMMEMORATING ILLINOIS' COLD WAR GEOGRAPHIES

What images, sounds, objects, gestures, and actions come to your mind when considering the Cold War narratives described above? What is found at or evoked by the Cold War sites you included in your spatial storyboard?

On the next page, doodle, describe, sketch, and share these visual, material, and sonic elements. They may become useful material and metaphors toward building a Cold War monument.

METAPHOR SKETCHPAD

NOTES/SKETCHES

NOTES/SKETCHES

NOTES/SKETCHES

NOTES/SKETCHES

NOTES/SKETCHES

NOTES/SKETCHES

ADDITIONAL RESOURCES

- National TLC Service - http://nationaltlcservice.us
- Illinois Site Documents - http://bit.ly/15HhzZF
- Nuclear Age Peace Foundation list of closed nuclear weapons sites http://bit.ly/18PNVhv
- Department of Energy Office of Legacy Management http://energy.gov/lm/office-legacy-management
- Formerly Utilized Sites Remedial Action Program http://1.usa.gov/18PPWdB
- Energy Employees Occupational Illness Compensation Program http://1.usa.gov/18GCYyA
- Manhattan Project Oral Histories - http://www.manhattanprojectvoices.org
- Traveler's Guide to Nuclear Weapons - http://www.atomictraveler.com

PERMISSION AND RELEASE

The following permission and release form will be distributed to all participants during the design charrette. A copy is included here for your information.

National TLC Service design charrettes are intended to contribute to public debate over the commemoration of the Cold War and ongoing nuclear state. It is expected that participants' contributions to the workshops, in the form of notes, sketches, and audiovisual recordings of comments and discussion, will circulate widely. They may be shown in subsequent charrettes and appear in video documentation, exhibitions, print and online publications, and other venues. With your signature below, you grant contingent permission to Sarah Kanouse and Shiloh Krupar to use print and digital materials documenting your participation in all forms and for all purposes as they shall determine necessary for the project. Kanouse and Krupar agree to retain the integrity of your voice and creative works, neither misrepresenting nor taking them out of context. Wherever feasible, Kanouse and Krupar will credit your contribution.

This permission shall become binding four days (96 hours) following the conclusion of event unless you contact Sarah Kanouse and/or Shiloh Krupar in writing to amend this agreement. You may address your amendments to sarah.kanouse@gmail.com and/or shilohrkrupar@gmail.com. Amendments may include anything from crediting your participation anonymously, to striking particular comments from the record, to making confidential all evidence of your participation. If you do nothing following the event, all rights, title, and interest in video documentation, notes, sketches, and other ephemera generated during the charrette, including without limitation the literary rights and the copyright, will transfer to Sarah Kanouse and Shiloh Krupar.

_____

I hereby release Sarah Kanouse and Shiloh Krupar, their legal representatives, employers, and assigns, and the University of Illinois from all claims and liability relating to said audio-visual media, sketches, notes, and other ephemera. I attest that I have voluntarily agreed to participate and that this document, unless amended within the 96 hour period specified above, contains the entire and complete agreement concerning the use and preservation of my participation in the charrette.

Signature of Participant: _____ Date_____

Name (printed):_____

Address: _____ Telephone: _____

Email Address: _____

Deadline for amendment of this agreement: October 30, 2013, 5:00 PM.

HTTP://NATIONALTLCSERVICE.US