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## Preserving a Common Past

Remarks prepared for the Celebration of the 70th Anniversary of the Manhattan Project, Washington, D. C., Wednesday, 3 June 2015

What a pleasure to see so many people interested in the Manhattan Project, even veterans of that extraordinary organization, assembled together in one place. We're meeting in reunion and celebration. We're also meeting to contemplate a signal event: the establishment by Congress of a Manhattan Project National Historical Park, joining some forty-nine other national historical parks across the country that America has seen fit to preserve.

Just to mention a few others: There's Appomattox Court House, Cumberland Gap, Dayton Aviation Heritage, New Bedford Whaling, Nez Perce, Rosie the Riveter, Thomas Edison, Valley Forge, War in the Pacific. There are another ninety National Historic *Sites*, including Andersonville—the location of a notorious Civil War prison camp; Ford's Theater, here in Washington, where President Abraham Lincoln was assassinated; a number of western forts; Manzanar, where Japanese-American citizens and resident Japanese aliens were interned during World War II; Minuteman Missile, which preserves the last remaining Minuteman II ICBM silo and associated launch control center; the Sand Creek Massacre site in Colorado, where a large force of Colorado Territory militia attacked and slaughtered a village of some 150 Cheyenne and Arapaho encamped peacefully along Sand Creek, most of

them women and children; the Whitman Mission in Washington state, where the Cayuse killed eleven Christian missionaries after a measles outbreak had devastated their tribe. There are national battlefields and military parks, Presidents' birthplaces and many other historical sites in the system as well.

Why should such places be preserved? To the point of our meeting here, why should the physical remains of the Manhattan Project be preserved? Should we be proud of the work of that secret program in the years of the Second World War? Should we be ashamed? Should we look the other way, or should we remember? Or are such questions appropriate in considering the physical preservation of our common past? These are issues worth examining, both specifically in terms of the Manhattan Project and generally where historic preservation is concerned.

First of all, why preserve the physical remains of the past? Why are the Declaration of Independence and the U.S. Constitution maintained in elaborately sealed cases lowered at night into expensive bomb-proof vaults when there are perfectly readable copies around? Why preserve Williamsburg? Why the Chesapeake and Ohio Canal? There are reasonably good scaled-down reconstructions at Disney World and in Las Vegas of everything from the Eiffel Tower to the Taj Mahal. And certainly many people go to such theme parks to view reconstructions without having to incur the trouble and expense of traveling to see the originals. I still remember, on my one and only visit to Disney World, hearing a mother threatening her misbehaving child while they walked among the scenic areas that represented different countries. "If you don't straighten up," the mother threatened her

child, "I won't take you to Canada." With good reconstructions around, what's so special about the originals?

The answer to that question isn't necessarily mystical, but it is philosophical. For philosophy I turn to philosophers. The philosopher John Searle has examined this problem of what he calls "social reality." The bombs the Manhattan Project was organized to build were physical objects that depended for their operation on physics, chemistry, metallurgy and other natural sciences, but their social reality — their meaning, if you will — was human, social, political. The same is true of Gettysburg and the Atomic Bomb Dome in Hiroshima and the Declaration of Independence. "There are portions of the real world," Searle writes, "objective facts about the world, that are only facts by human agreement. In a sense," he goes on, "there are things that exist only because we believe them to exist. I am thinking of things like money, property, governments and marriages."

Searle distinguishes between what he calls "institutional facts" — facts that require human institutions for their existence — and "brute facts." Paper money, citizenship, property, the meaning of words, the high value of diamonds are institutional facts. Brute facts are the facts of the sciences and of the physical world — that the Potomac is a tidal river, that a hydrogen atom has one electron. Brute facts are facts of physical reality. Institutional facts are facts of social reality, which is every bit as real to us and as complexly structured as physical reality, but weightless and invisible.

I'm sure you see where this is going. We preserve what we value of the physical past because it specifically embodies our social past. However weightless and invisible social reality might be — I mean all the vast

interconnections and communications we share together and with our forebears, all our recordings, experiences, photographs, poems, paintings, highways, inventions, celebrations, styles of everything from clothing to romantic love — that social reality is anchored to physical objects, starting with our own living bodies but extending far and deep into the physical world of landscapes, buildings, documents, machines and artifacts. Finding meaning in the preservation and contemplation of those physical objects isn't merely sentimental, because the meaning isn't an extra, an add-on. To the contrary, physical facts and social facts can and do occupy the same space at the same time.

Or to say it more simply: when we lose parts of our physical past we lose parts of our common social past as well. Anyone who has ever lost a wedding ring, or had an album of family photographs destroyed in a fire, knows exactly what I mean. We had a horrific example a few years ago in the Taliban's decision to destroy the great Buddhas carved into the mountainside at Bamiyan Valley in Afghanistan. The Taliban's reason for destroying the Buddhas, like that of ISIS in its more recent depredations, involved its interpretation of Islamic prohibitions against worshipping graven images, but even Islamic leaders in other countries were outraged at what the world rightly perceived to be a barbaric despoliation of the common human past. Reproductions can give a sense of the past, but because they lack authentic social facticity they can never wholly substitute for the original, any more than copies of a painting can substitute for the original. That's what informs the purpose and justifies the expense of historic preservation.

But of course we don't preserve all the past. We pick and choose. Every building where human beings have lived or worked is embedded densely with memories. Most of those memories are private, however; not many structures or artifacts embody historic transformations. There were log cabins everywhere in frontier and rural America, but only a few witnessed the births of poets or Presidents. Shops and laboratories and factories have fared even less well than birthplaces, perhaps because the historic events they witnessed were less universal as human experiences go and therefore less emotionally resonant — were invention and discovery rather than birth and marriage and death.

Where does the Manhattan Project fit in this spectrum of values? Do what's left of its historic structures deserve preservation? How will history judge it? Was it a great achievement? Or was it, as some have accused, a monument to man's inhumanity to man?

When Robert Oppenheimer recruited scientists for the new secret laboratory under construction in northwestern New Mexico, he was restrained by the requirements of national security from telling them what their work would be. So he found an equivalent that appealed to their patriotism and altruism. He walked them out across their campuses at Harvard and Wisconsin and Berkeley and Columbia and whispered to them that the work he was inviting them to join "would probably end this war . . . and might end all war." And within certain limits, I think he was right.

The question of the morality of strategic bombing — that is, bombing cities rather than purely military targets — is more complex, but whether or not to do so had been decided in Europe two years previously, and by the

time the atomic bombs were ready to use, relentless firebombing — the deliberate creation of mass fires comparable in destructiveness to those first atomic bombs — had already burned out every Japanese city of more than fifty thousand population. Indeed, Hiroshima, Nagasaki and several other potential targets had been taken off Curtis LeMay's B-29 firebombing list specifically to leave them for the atomic-bombing missions. Had they not been delisted in the spring of 1945, they would already have been destroyed by firebombing, with equal or greater loss of life.

The social reality of world war shapes and qualifies these unadorned facts, but it's singularly difficult to revivify that social reality today, after so many years of relative peace. Young people in particular find appeals to the war's social reality unconvincing, which is perhaps a happy measure of how long we have been free of major war and how little they have had to be exposed to war's brutality, but is also partly a measure of our failure to preserve and display the artifacts of the war in ways which might evidence its social reality. There is a museum here in Washington devoted to the Holocaust, as indeed there should be; but there is no museum that recreates the reality of the Second World War.

What was that social reality in the summer of 1945? We had been at war since the end of 1941, four long years, years of terrible loss of life, 55 to 65 million human beings killed worldwide, more lives lost than in any previous war in history, loss of life comparable to the devastation of some ghastly great plague, and every one of those lost lives a loss of love, of relation, of human potential, of another part of human innocence as well. The Russians with our help and British help had finally beaten the Nazis. We had destroyed the

Japanese navy and air force and blockaded the Japanese home islands; Japan had a year's supply of ammunition on hand but very little food. We considered the Japanese defeated, but they steadfastly refused to surrender on our terms and seemed to be prepared to fight for their homeland down to the last man, woman and child — until, they said, until we eat stones.

We were angry with them, beyond describing. We were tired of putting our fathers and husbands and brothers and sons at mortal risk. When no legal or social channels exist for settling disputes, human beings turn to violence, and it's a basic principle of serious violent encounter that you escalate as much as necessary to win a victory. We were engaged in a long, violent encounter with a nation that had attacked us. We escalated to firebombing and then to atomic bombing because we had no intention of allowing the war to drag on or to end in stalemate. We intended to dominate and we did. I was eight years old in 1945, old enough to remember Pearl Harbor and the years that followed, old enough to remember gold stars hung against black crepe in the front windows of the houses of new-minted war widows and suddenly fatherless children, and I find much tragedy, but no dishonor, in our having used atomic bombs to hasten the end a long and terrible war.

Was Oppenheimer also right about the work of the Manhattan Project ending all war? On first inspection he would seem to have been wrong. Obviously there have been wars since 1945. But look more closely, and from a longer perspective, and I think the question might have a different answer.

Imagine a graph. The vertical scale is man-made deaths — deaths from war and war's attendant privation — in millions. The horizontal scale is years, starting in 1900. Deaths begin a steep climb in 1914 with the outbreak of the

First World War, rising to above three million in 1915, dropping a little, then rising to above six million in 1917 and 1918, the period of the Russian civil war. Deaths drop off abruptly to below one million annually through the mid-1920s, rise again to almost four million with forced collectivization in the Soviet Union, drop, rise in the later 1930s to above three million with the Stalinist purges and the Spanish Civil War, drop a little, then surge across the early 1940s to a peak of 15 million in 1943, when the Holocaust added its millions to the deaths from combat and civilian deprivation.

By 1945, however, man-made deaths have dropped to below three million annually, by 1948 to about one million. For the rest of the 20th century and into the 21st, man-made deaths smolder along at an average of about one million deaths per year, comparable in scale to the annual toll of some of the less virulent epidemic diseases, considerably less than the annual worldwide toll from smoking. Purges in China, the Korean War, Vietnam, Cambodia, Afghanistan show up on the graph. But after 1945 we see nothing like the steep spikes of the two world wars. Just as public health brought most epidemic diseases under increasing social control in the West during the first half of the 20th century, so does it appear that something brought man-made death under increasing social control in the second half of the 20th century.

What was that something? I would propose to you that the discovery of how to release nuclear energy, and the application of that discovery to the development of small, portable, immensely destructive explosives, are responsible for the reduction in man-made death from periodic conflagrations — world pandemics, if you will — to smoldering, limited, local epidemics. God knows those smoldering levels are terrible enough, but they are an order



of magnitude less than the horrors that marred the first half of the twentieth century. Does anyone doubt that the United States and the Soviet Union would have gone to war, given their mutual belligerency and their mutually exclusive ideologies, if fear of nuclear retaliation had not kept the war cold? We have now almost three-quarters of a century of experience with a nuclear world, enough to say with some confidence that the discovery of how to release nuclear energy effectively ended world-scale war by making it too destructive — too *self*-destructive — for even the most belligerent nations and leaders to dare.

Of course a consequence of that limitation on the scale of war, that limitation on national sovereignty, was and is the risk of the very nuclear holocaust we have sought to prevent. Had we been wiser, or less afraid, we might have done things differently — built fewer weapons, worked harder at negotiation and diplomacy — but we were exploring uncharted territory, both abroad and at home, and we made every mistake possible along the way except the one mistake from which we might not have recovered, the mistake of using nuclear weapons against a nuclear-armed foe.

I hope you'll consider my analysis of the influence of the nuclear discovery on the world. If I'm even partly right, then the historical sites we will be discussing today are among the world's most significant, places where work was done that changed the human world forever and for the better.

In the fullness of time, that change may well lead to the prevention not only of world war but of all war. When science demonstrated that matter, properly arranged, is all energy, it revealed a natural limit to national sovereignty that made unlimited war suicidal. No one had conceived of such a

limit before. War had seemed to be, and had grown to be, effectively unlimited. We have been forced by a new knowledge of the natural world to find less destructive methods of settling disputes, and if less destructive methods can be substituted, by necessity, for world war, there's no reason why such methods can't substitute for limited war as well. We have every reason to hope and to expect that alternatives to even limited war — security guarantees, treaties, international law — will continue to emerge in the shelter that the natural limitation has created. In the long run, Robert Oppenheimer may turn out to have been right with both his predictions. The places and structures that the Manhattan Project Historical Park will preserve embody the social reality of that millennial transformation. That's what we're here today to celebrate and discuss.

Welcome, and thank you.