

From Dora to the moon by Françoise Dupré

A short history of Dora, the Nazi Concentration Camp, the V2 ballistic missile and spaceflight.

Notes

Pour l'histoire de Dora en français, veuillez visiter le site de la Commission Dora Ellrich: <http://dora-ellrich.fr/accueil/>

This text does not have illustrations to avoid copyright issues.

Do refer to the bibliography page of *Dora Project's* website where you will find a list of websites and publications that Dupré has consulted for her ongoing research.

Dora (1943-1945)

Dora was the code name for the Concentration Camp and its underground rocket factory called **Mittelwerk** developed in an old gypsum mine and storage facility. Once finished, the factory was a network of tunnels following a ladder design, two large tunnels linked across by smaller tunnels. V1 rockets (flying bombs) and V2 ballistic missiles were assembled at Mittelwerk. Dora was located near the town of Nordhausen, in the Harz mountain region in Central Germany.

Until October 1944, Dora was a sub-camp of Buchenwald sited on the outskirts of Weimar. Dora became an independent camp under the name **Mittelbau-Dora**, a complex of nearly 40 sub-camps. Between August 1943 and April 1945, out of the 60,000 registered prisoners more than 20,000 died.

V1 rockets (flying bombs) and V2 ballistic missiles were assembled at Mittelwerk. The V2 was a top secret weapon, a liquid fuel rocket and the first ballistic missile. Its original name was the A4 rocket. In 1944 it was re-named Vengeance Weapon 2 by the Propaganda Ministry.

At Dora, prisoners were mainly French, Belgian and German political prisoners; Roma and Sinti (Gypsies), German criminals as well as Soviet and Italian POWs Ukrainians and Polish forced laborers. The first prisoners arrived from Buchenwald on 28 August 1943. The first Jewish prisoners began to arrive via Buchenwald in May 1944. They were Hungarian Jews, the only European Jews sent to Dora to work. See Endnotes One and Two.

Peenemünde (1936-1945)

The V2 rocket was developed in Peenemünde Military Test Site on the Baltic Sea Island of Usedom. Peenemünde was one of the most modern technological facilities of the Third Reich. V2 development started in 1936 and by the summer of 1943 its

serial production began. The first launch of a rocket into space took place there in October 1942.

Peenemünde rocket engineers and armament managers applied to the SS for concentration camp prisoners as a means to compensate for manpower shortage. Slave labour was used all through the V2 programme in Germany.

Following **Operation Hydra**, a Royal Air Force massive air raid on 17 -18 August 1943 and subsequent attacks (**Operation Crossbow**) the production of V2 was moved underground to the Harz mountain where Dora Concentration camp and Mittelwerk were established. V2 parts were also manufactured in different regions of Germany.

Peenemünde continued to operate as a research center until January 1945. SS concentration camps continued to provide slave labourers to the research center. Its chief rocket engineering and project leader was Wernher von Braun. General Walter Dornberger, engineer was in charge of the missile programme and a member of Mittelbau-Dora advisory council. They were implicated in the use of slave labourers at Peenemünde and Mittelwerk facilities. Von Braun and Dornberger were awarded the Knight Cross in 1944. They were members of the National Socialist (Nazi) Party and the SS.

Post-War use of V2 technology

Mittelbau-Dora Concentration Camp was liberated by the American forces on 11 April 1945. They discovered the underground factory and began to recover V2 rocket technology.

The capture by the Allied forces and the use of advanced technology developed in Germany during WW2 was a large yet discreet organised enterprise. Altogether it can be estimated that more than 2,000 reports on German technology, engineering, manufacturing were written at the end of WW2. The main agencies involved were Allied forces agencies such as the Combined Intelligence Objectives Sub-committee (C.I.O.S), the Field Information Agency, Technical (F.I.A.T) and the British Intelligence Objectives Sub-committee (B.I.O.S).

Operation Backfire (May-November 1945) was a British led Allied Military Operation. It was set up to gather maximum information and V2 parts. By June 1945 American and British intelligence officers were interrogating Nazi officers and engineers including Wernher von Braun. With their cooperation and that of captured V2 field troops formed into a division (AVKO), the British team was able to reassemble, test and launch few V2 rockets. They based their research at Cuxhaven on the German coast of the North Sea.

Operation Backfire, 3rd and final V2 launch, on 15 October 1945 was witnessed by representatives of the United States, Russia, France, officials from Whitehall and the press. Amongst the guests were Sergeï Korolev who became the chief designer of Soviet Space programme, developed from V2 technology. Korolev was responsible for sending the first human, Yuri Gargarin, to fly into space with the Vostok 1 Rocket. French Professor Henri Moureu also visited Mittelwerk and Cuxhaven. Moureu was the founder of CEPA (Centre d'études des engins autopropulsés) based in the French

army scientific bureau. CPA recruited Peenemünde engineers, following direct instruction from Général de Gaulle to transfer to France German scientists and engineers of great value. German engineers contribution to French space programme culminated with the launch of first Ariane in 1979.

Operation Paperclip was the name of the American mission dedicated to the recovery of V2 rocket technology and engineers. On 18 September 1945, Von Braun flew to USA where he developed a highly successful international career. In 1960, von Braun became NASA's George C. Marshall Space Flight Center first director in Huntsville, Alabama. von Braun oversaw the construction of the large Saturn launch vehicles that took men to the moon first with Apollo 11 and played an historic role in the development of guided missiles. Walter Dornberger who was responsible for a high number of dead at Mittelwerk took part in Operation Backfire in Cuxhaven and was under British custody between 1945-47 but was never tried. He was released and brought to America under the auspice of Operation Paperclip and worked for the US Air Force.

3,000 German scientists, engineers and researchers left Germany to work in USA
5,000 to USSR
1,000 to France
Few dozens to Britain.

Soon after the liberation of Mittelbau-Dora concentration camps. The historical connection between: cutting edge spaceflight/ballistic missile research and Nazi concentration camp/slave labour was severed. This benefited the German engineers who wanted to re-invent themselves and rarely mentioned Dora in their memoirs. The context of the Cold War also favored the process of 'sanitization'. Nations were keen for their military and civil technology to be perceived as home-grown and for its Nazi origin to be erased.

Today, it is acknowledged that the V2 was a 'military failure' (Michael Neufeld). However its 'rocket engine launched us into space' (Centenary Icons, Science Museum, London).

Lesser-known, is that the engineers who launched USA, Russian and European space and military programmes had been responsible for the development of the Nazi missile programme that used slave labour. The technology that took humanity into space and on the moon is inexorably linked to the concentrationary universe.



Science Museum, London.
Exploring Space gallery. Photo: F. Dupré

Endnotes

ONE: Deportation from France

165 000 men, women and children were deported from France during WW2.

89 000 were deported as a result of repression against resistance against the occupier. Including: political prisoners hostages, common law criminals, homosexuals and victims of reprisal. 60% returned.

76 000 including 11000 children were deported as a result of antisemitic persecutions and in the context of the ' Final Solution to the Jewish Question' in Europe. 3% returned.

The first convoy of deported left France on 20 August 1940 to Mauthausen, Austria. It consisted of 900 Spanish refugees, men, women and children. Last convoy to leave Compiègne was on 17 August 1944 to Buchenwald.

Last convoy of political prisoners to leave Paris was on the night 15-16 August 1944 to Buchenwald and Dora for the men, to Ravensbrück for the women.

76 000 Jews were deported from France in 83 convoys with each an average of 1000 persons.

(From La Fondation pour la Mémoire de la Déportation, 2007)

TWO: Hungarian Jews were the only European Jews sent to work at Dora Concentration Camp.

Hungarian Jews from Transylvania were the last European Jews to be deported after the occupation of Hungary by the German troops in March 1944. Hungary included a large population of Czech, Romanian and Yugoslav Jews considered Hungarian since 1920. Hungarian Jews were sent to armaments factories after 'selection' at Auschwitz. Hungarian Jews at Dora were badly treated. They were assigned heavy-duty building jobs. Many were then moved to Harzungen and Ellrich, Dora subcamps.

Other Hungarian Jews arrived soon after from Volkswagen factories in Fallersleben where they worked on V1 production. They continued with the job at Dora. Others European Jews arrived in January-February 1945. They were survivors from the evacuation of Auschwitz.

French Jews were also arrested as resistant fighters. Some had false identity papers and were identified as Political prisoners.

PRINCIPAUX SIGNES DISTINCTIFS DES DÉPORTÉS

POLITIQUE
ALLEMAND



1647

POLITIQUE
FRANÇAIS



49827

POLITIQUE
JUIF



80647

ASOCIAL



1241

TZIGANE



15647

TÉMOIN
DE JÉHOVAH



3624

APATRIDE



18427

DROIT COMMUN



25756

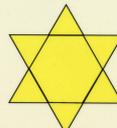
HOMOSEXUEL



CIBLE PEINTE DANS LE DOS
DE CERTAINS DÉTENU POUR
ATTIRER L'ATTENTION DES SS



ÉTOILE JAUNE
PORTÉE PAR
LES JUIFS



Chaque détenu portait, cousus sur le côté gauche de la veste ou de la robe, un triangle de couleur et une bande de tissu où figurait le matricule. Une lettre imprimée sur le triangle indiquait, sauf pour les Allemands, la nationalité du déporté : F (Français); B (Belge); S (Espagnol); R (Russe); P (Polonais)...

D'après le livre *La Déportation* édité par la Fédération nationale des déportés et internés résistants et patriotes (FNDIRP).