DRAFT

Solving the [radioactive] riddle of 9/11
– a simple explanation of GROUND ZERO –

911nn426

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– a simple explanation of GROUND ZERO –

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XML download: www.911history.de/xml/911_Analysis_en.xml
PDF download: www.911history.de/pdfs/911_Analysis_en.pdf

Registration:

ISBN: pending

Printed in Germany

Published with LaTeX based on **XML**

Aim of physical modeling

The aim of physical modeling is to be able to make reliable predictions on the behavior of a natural system.

Any physical experiment based on a sound model and repeated under the same conditions will always provide exactly the same results.

Aim of the book

The aim of the book is to provide a convincing explanation of the World Trade Center's "mysterious" destruction process using a simple model.

It is in fact possible to design a model that gives a plausible explanation for all of the phenomena observed: a controlled underground detonation of a nuclear explosive charge.

This theory is supported by the official analysis results of the WTC fine particulate matter which show explicit radioactive disintegration processes of rare elements, the so-called "nuclear fingerprint".

Failure of politics, media – and the banks

The interrelations of the arms industry's economic interests with a politically or religiously based belief in superiority as well as the control of the mass media by oligarchs enables the use of tactical nuclear weapons as well as long-term experiments with clueless and disempowered civilians.

This fact that is true to date allows to understand the failure of politics and media in performing their task to inform and to protect people.

- we would like to point out that both US and Israeli intelligence services are victim and offender in equal measure in this disaster, a disaster that can eventually be traced back to the power of private central banks

Basic principle of physical modeling

The basic principle of physical modeling is based on three steps:

- Observation
- Model approach / calculation
- Interpretation / comparison with the model (model corrections if necessary)

The Author

As a student at the 'Institut de physique nucléaire' [Paris] the author has taken part in studying the formation and propagation of shockwaves in thin layers of material after high energy cluster impact.

In principle the calculation of shockwaves in thin layers of material does not differ from a calculation of high energy shockwaves – for example shockwaves after a meteor was hitting the surface of the earth.

The response function and shockwave propagation of a shallow underground nuclear explosion can be calculated following the same simple principle:
Action – Reaction.

Example: cluster impact in a thin layer of material

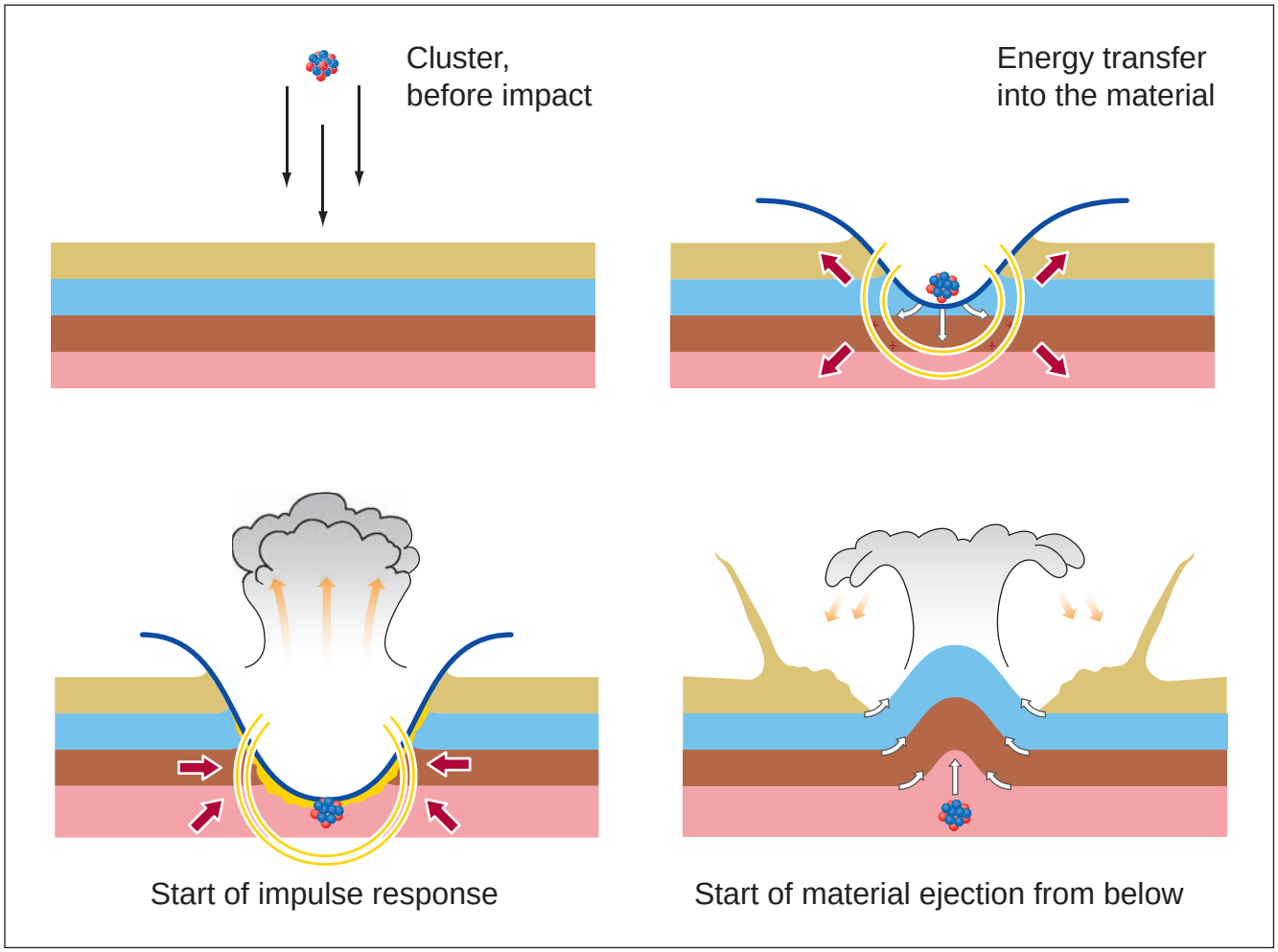


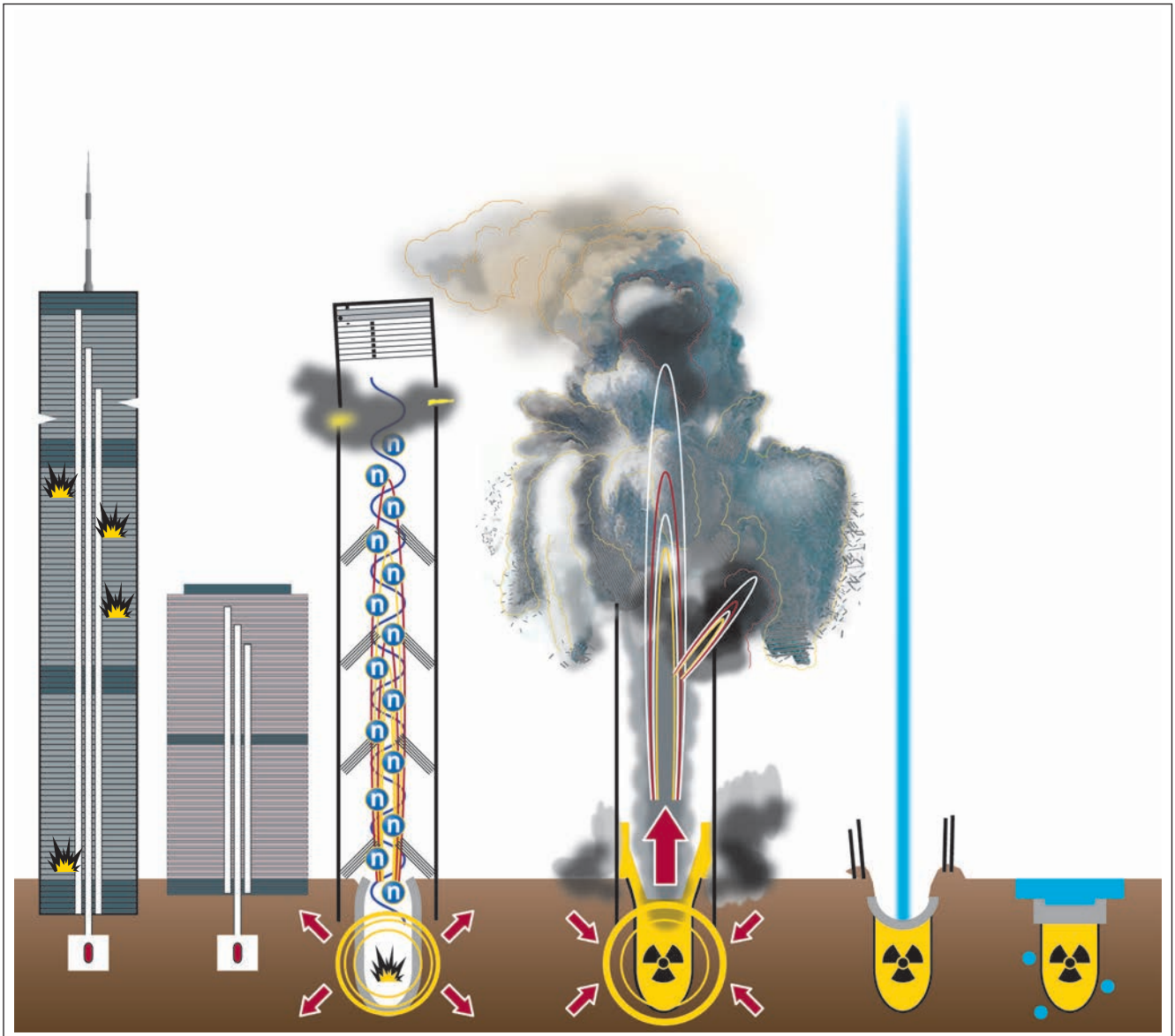
Fig. 1-1 Source (changed): http://www.geopark-ries.de/index.php/de/entstehung_rieskrater

Modelling the destruction of the WTC

Logical course of events

- Implosion (typical blast): connection of the elevator shafts
- Ignition of the nuclear weapon: strong neutron radiation in upwards direction, evaporization of the steel beams due to the absorption of fast neutrons
- Shotgun principle: formation of an upshooting, superhot plasmatic needle and eruption-like ejection of material / pulverization of the concrete due to a steam explosion of all the water chemically bound in the concrete
- Interaction with radioactivity: blue Cherenkov radiation
- Radiation protection sealing of the cavity, the bedrock remains radioactive

Shooting up into the sky – "Operation Upshot II"



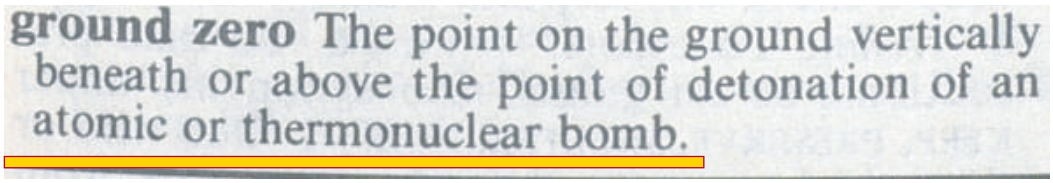
911nn010

Fig. 1-2 *Source (modified, Original from Dimitri A. Khalezov): http://en.wikipedia.org/wiki/File:Nuclear-demolition-damages.jpg*
DOWNLOAD *as svg:www.911memorial4kids.org/svg/911nn010.svg*

GROUND ZERO

Definition BEFORE 2001

"The point on the ground vertically beneath of above the point of detonation of an atomic or thermonuclear bomb is called: GROUND ZERO "



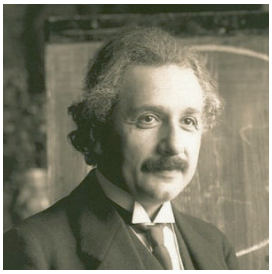
911nn591

Fig. 1-3 Source: http://www.veteranstoday.com/2011/02/15/dimitri-khalezov-ground-zero/

Albert Einstein (1879 – 1955): ...about Education and The Atomic Bomb

"We scientists recognize our inescapable responsibility to carry to our fellow citizens an understanding of the simple facts of atomic energy and its implications for society.

In this lies our only security and our only hope – we believe that an informed citizenry will act for life and not death."



KILLING OUR OWN: The Disaster of America's Experience with Atomic Radiation

Source: www.ratical.org/radiation/KillingOurOwn/KOO.pdf.

Local copy: www.911history.de/pdfs/Killing_Our_Own.pdf

Author's Note: the scientists have failed in their responsibility to warn the people...

...that 9/11 is also a nuclear field experiment on civilians (providing "valuable" data on the effects of several Atomic Radiation HotSpots in a large City).

In case of a Limited Nuclear War in Europe (or anywhere else) a multitude of such Radiation HotSpots would be present in many of our cities.

We should – as a people – finally expose and stop the perpetrators of these crimes.

The bulb of a [weak] mushroom cloud over Ground Zero

Fig. 1-4 *Source 1: https://www.facebook.com/911nucleardemolition/photos_stream?tab=photos_stream*
Source 2: http://911research.wtc7.net/wtc/evidence/photos/index.html

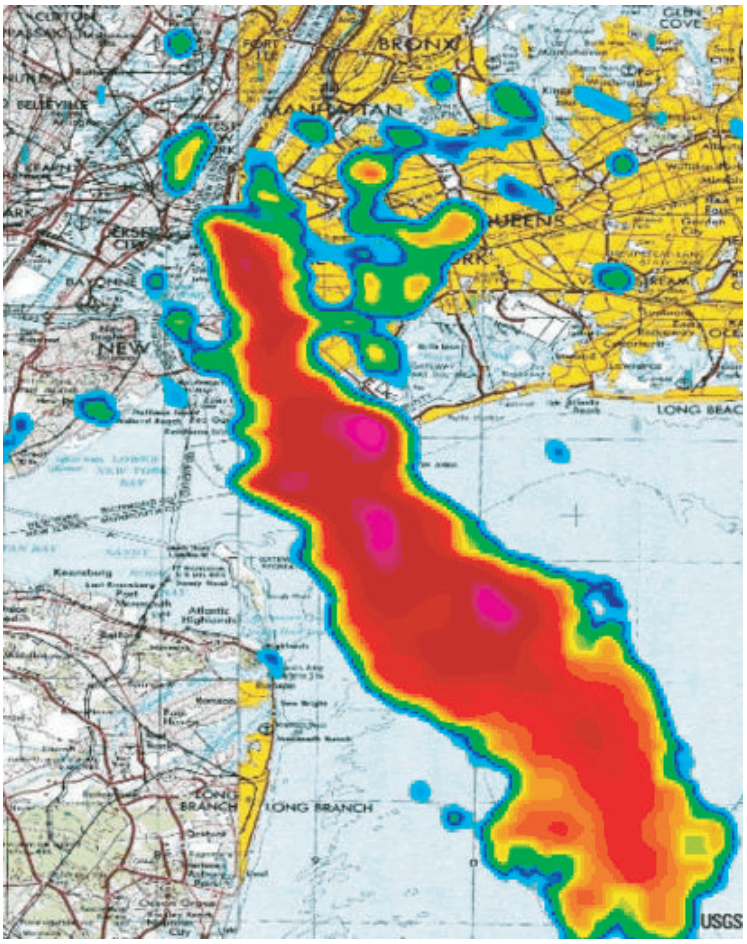
Black smoke rising from the crater (air suspended iron micro-droplets)

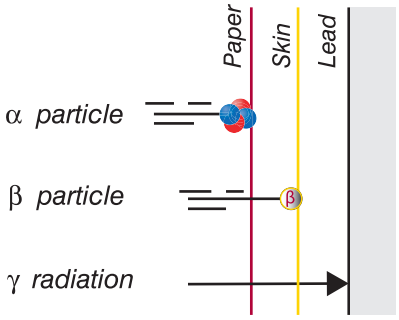
Fig. 1-5 *Source 1: https://www.facebook.com/911nucleardemolition/photos_stream?tab=photos_stream*
Source 2: http://911research.wtc7.net/wtc/evidence/photos/index.html

FALLOUT

On 9/11 a large part of the [radioactive] dust particles were blown out to the sea with the result that the fallout in New York was relatively low.

Dust cloud of the World Trade Center, NEXRAD radar image





α particle

is stopped easily, however when being inhaled it will cause very aggressive cancers (strong ionization)

β particle

low penetration capability, however aggressive when inhaled
Main particle of the Strontrium/Barium decay chain;
Main cause of Cancer in New York

γ radiation

high penetration capability
Nearly absent in the Strontrium/Barium decay chain

911nn005_en

Fig. 1-6 Source: http://en.wikipedia.org/w/index.php?title=File:New_York_September_11_NEXRAD.png.

The Must-be Wave of Cancers (roughly schematic)

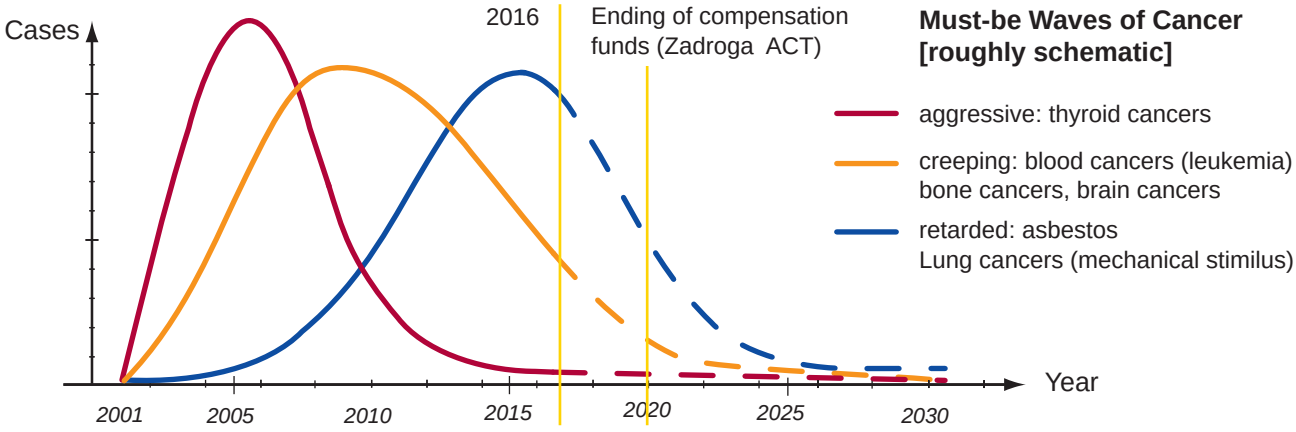


Fig. 1-7 Source: Wave of Cancers: https://www.youtube.com/watch?v=P91flfvdpTw

ABSORBED RADIATION

Iron vapor excellently compensates and neutralizes neutron radiation and radioactive radiation.

Iron can absorb a lot of neutron radiation WITHOUT getting radioactive itself.

The Geiger Counter will remain silent.

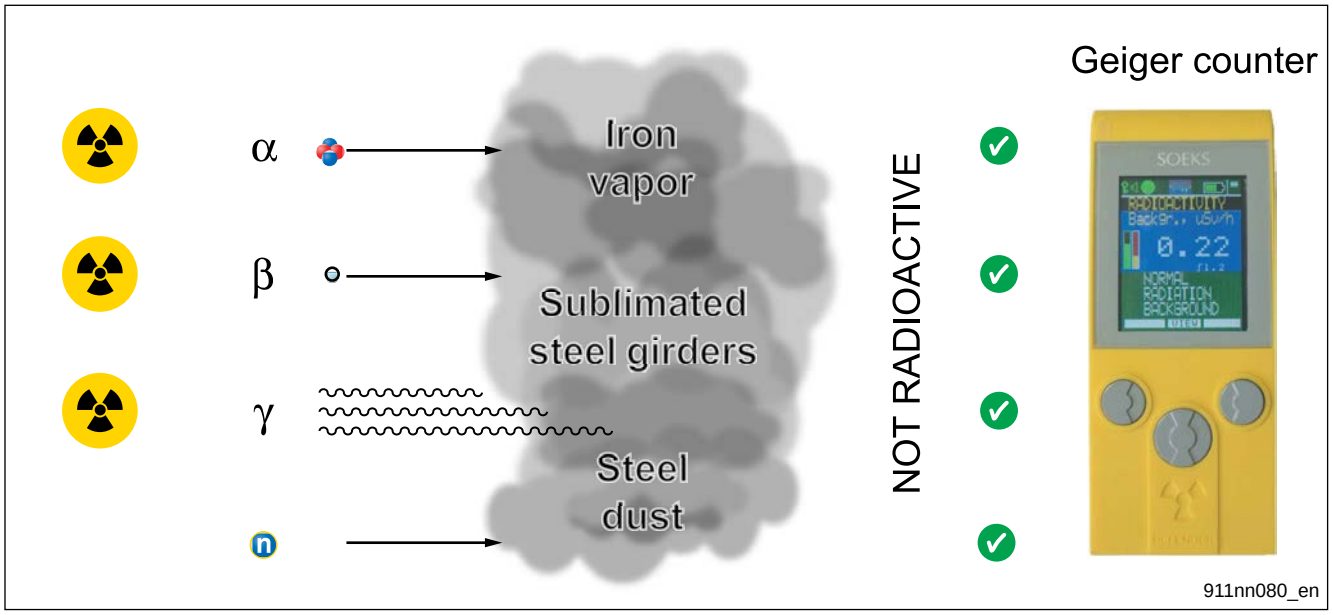


Fig. 1-8 Source (modified): http://en.wikipedia.org/wiki/Radiation

CANCER

The melting pot of granite and the pile of debris directly above Ground Zero were highly radioactive.

Most of the first responders on duty during the World Trade Center disaster have fallen ill and thousands died of cancer already.

2009: more than 900 people died of cancer

Source: https://www.youtube.com/watch?v=hhVQ5lbzwCQ

2010: more than 33,000 people suffer from "illness related to the attacks"

Source @00:30: https://www.youtube.com/watch?v=SGjaIR4IG_o

2011 president Obama signed the 'James Zadroga 9/11 Health and Compensation Act', which was drafted in 2010 (Source: https://en.wikipedia.org/wiki/James_Zadroga).

2016: more than 72,000 people suffer from "illness related to the attacks"

Source: http://www.renew911health.org/

Table of Contents

1 Free fall of Building 7

Observation

At 5:20 pm a 190 m New York office tower made of steel unexpectedly collapsed to its base area.

The falling tower accelerated for several seconds in free fall while collapsing, similar to a stone suddenly released.

Free fall means that all load-bearing structures broke down suddenly at the time of the collapse:

- all steel beams were dissolved on the inside
- the whole outer shell was weakened considerably (no resistance of the 47 floors)

911nn401

Fig. 1-1 Source @00:49 (ReThink911.org): https://www.youtube.com/watch?v=mvhxN2_xOng

Model approach

This model assumes the following combination of:

- typical controlled demolition (comparatively small [low-noise] explosive charges)
- nuclear weapon detonated underground at a depth of 50 m

  Peculiarity of the process: noiseless, the only thing that could be sensed were vibrations

LOCAL VIDEO: **Free fall of WTC7**

www.911history.de/01.mp4

Source @06:04 (HD Cumulus): https://www.youtube.com/watch?v=Ujps2oCA-nU

The increase in speed during a free fall is defined by:

$$\text{Speed: } v_{\text{Free Fall}} = 9,81 \frac{m}{s^2} t$$

911xx003_en

Fig. 1-2 Calculation formula for free fall on earth

The definition of a marker point at a limit line (light-colored surroundings / dark building) in a video allows to calculate acceleration values.

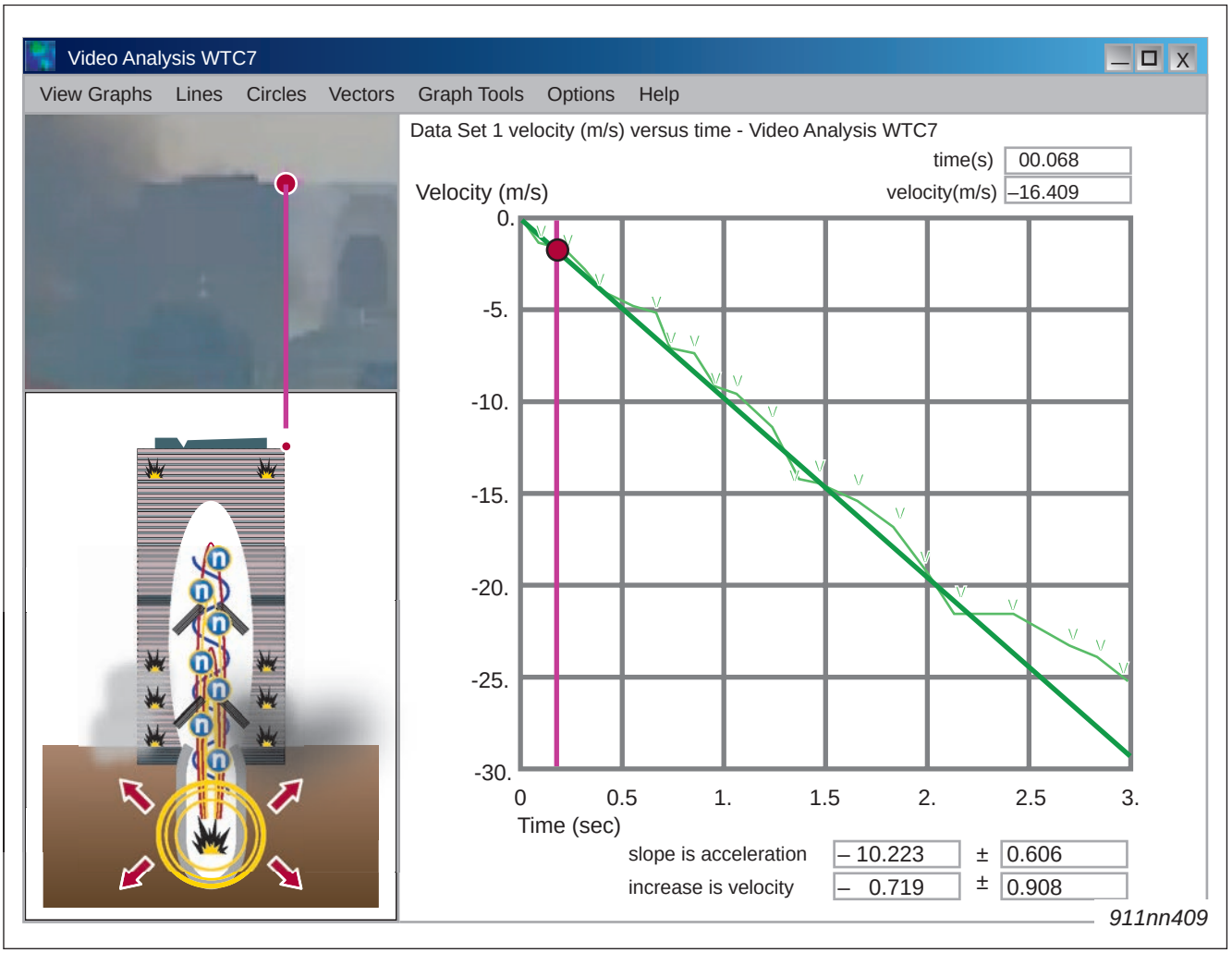


Fig. 1-3 Source 1 (video): https://www.youtube.com/watch?v=rP9Qp5QWRMQ
Source 2 (drawing edited) http://en.wikipedia.org/wiki/File:Nuclear-demolition-damages.jpg

Comparison / interpretation

The calculations in the video prove the free fall of the building.

	0.5 s	1 s	1.5 s	2 s	2.5 s	3 s
Speed during free fall	4.9 m/s	9.8 m/s	14.7 m/s	19.6 m/s	24.5 m/s	29.4 m/s
Observed speed	4.8 m/s	9.2 m/s	14.5 m/s	19.5 m/s	22.3 m/s	25.1 m/s
Ratio [%] v_{WTC-7} / $v_{free\ fall}$	97%	93%	98%	99%	91%	85%

Tab. 1-1 Comparison / interpretation

2 Mushroom cloud (early stage) above Building 7

Observation

After the complete collapse of Building 7 a mushroom cloud rose from the foundation that initially formed four distinguishable sidelines.

- This is very uncommon even for a conventional controlled demolition.

  For additional sidelines to develop, another very strong energy source must be present.

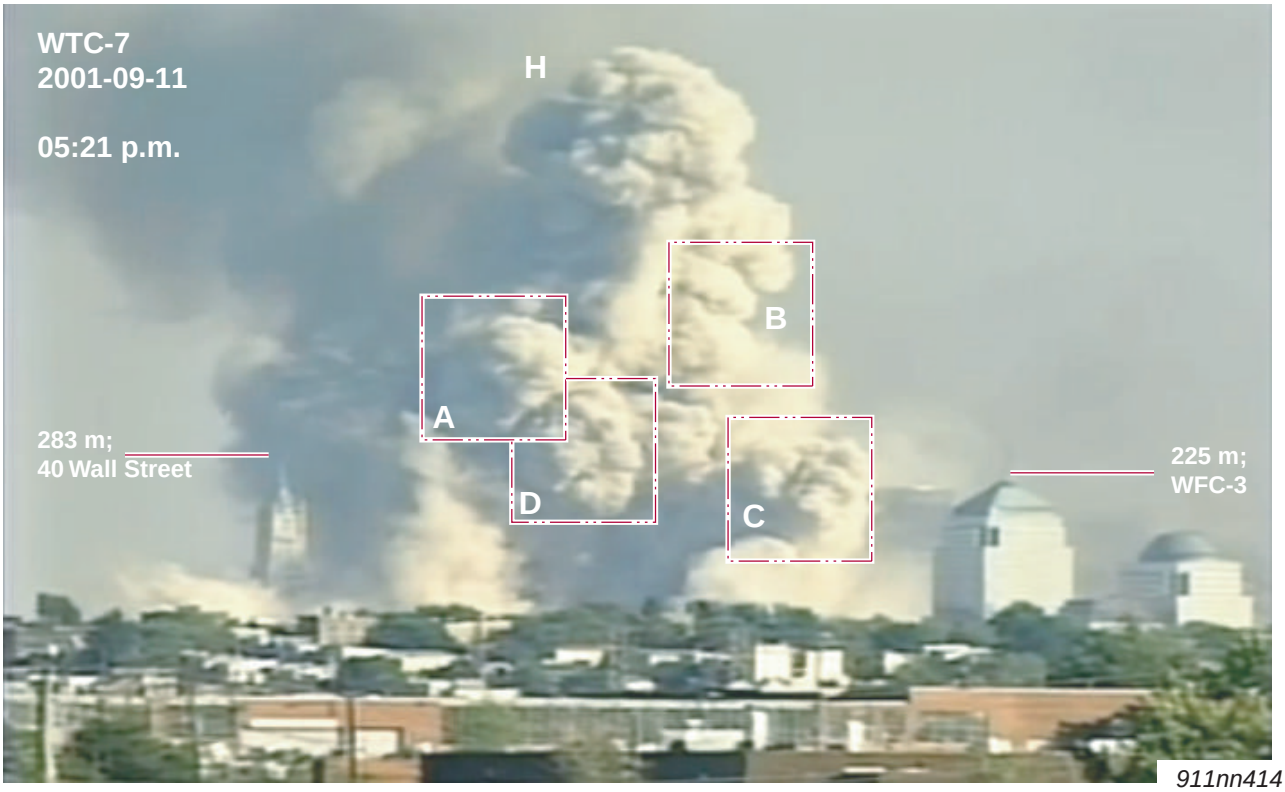


Fig. 2-1 *Source @12:33 PM: http://www.youtube.com/watch?v=JnLcUxV1dPo*
WFC height information: http://de.wikipedia.org/wiki/World_Financial_Center

Model approach

The model approach assumes that the nuclear energetic center was approx. 50 m below the foundation since

- the mushroom cloud did not emerge until after the complete collapse of Building 7 (after a time delay of approx. 60 seconds)
- the fact that sidelines developed means that not all of the energy could escape in a bundle but had to find its way up through side channels (obstacles such as rock debris / remains of the building)
- a circular distribution around the center can be assumed:
  - one main line **H** (with approx. 50% of the total energy)
  - four sidelines **A**, **B**, **C**, and **D** (altogether approx 50% of the total energy)
- no explosion sounds could be heard
- a seismic wave was recorded

  Source: http://911research.wtc7.net/wtc/evidence/seismic.html#wtc7level

Calculation

The simplest scenario is to display the emerging dust clouds as cylinders.

$$\text{cylinder volume} = \pi r^2 h$$

911xx002_en

Fig. 2-2 Calculation formula cylinder capacity for the energy content of the dust clouds

In the following picture, the sidelines are displayed in **top view**, as **cylinder model** and as simplified **cross section.**

911nn413_en

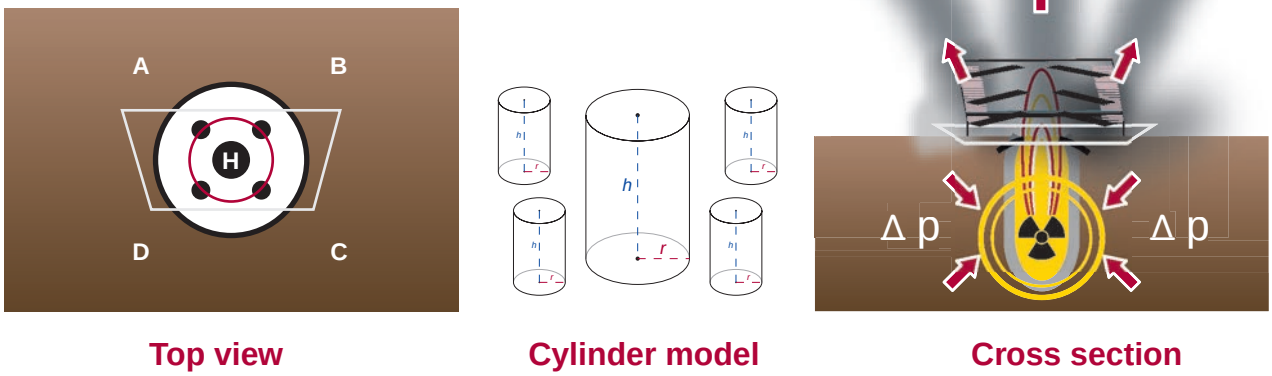


Fig. 2-3 Schematic outburst of the dust cloud from the underground
Source @1:10: https://www.youtube.com/watch?v=mcg9ShapkhA

Comparison / interpretation

The suggested model gives a plausible explanation on the formation of sidelines.

LOCAL VIDEO: **Free fall and early-stage mushroom cloud**

www.911history.de/03.mp4

Source @ 04:28: https://www.youtube.com/watch?v=U8lrTy5mrZY

3 Mushroom cloud (late stage) above Building 7

Observation

The mushroom clouds rising up from the foundation of the destroyed office tower developed up to different heights.

- Main line H

  pushes through the cold air layers, a tube develops whose rise is not decelerated until a mushroom develops at a height of approx. 1,300 m

- Line A and line D

  billow up to a height of approx. 800 m

- Line B and line C

  a cold air layer that cannot be penetrated by low-energy dust clouds seems to exist at a height of 600 m

Fig. 3-1 *Source @1:10 PM: http://www.youtube.com/watch?v=JnLcUxV1dPo*
WFC height information: http://de.wikipedia.org/wiki/World_Financial_Center

Model approach

The energy content can be concluded from:

- the total volume V of the cloud
- the ascension height h
- the capacity to penetrate cold air layers / velocity v

LOCAL VIDEO: **Rise of the mushroom cloud up to 1,300 m**

www.911history.de/02.mp4

Source @12:30 PM: http://www.youtube.com/watch?v=JnLcUxV1dPo

Comparison / interpretation

In nuclear tests the formation of different stages in the mushroom cloud can often be observed if the corresponding cold air layers are present.

- Reaching the 1st barrier:

  the mushroom cloud is briefly stopped in the cold air layer billowing

The energetic center underneath continues to supply the hot airflow with thermal energy. As a consequence, the air tube pushes through the cold air layer like a needle and continues to billow up.

- Reaching the 2nd barrier:

  a second cold air layer stops the gas flowing upwards, the characteristic mushroom develops

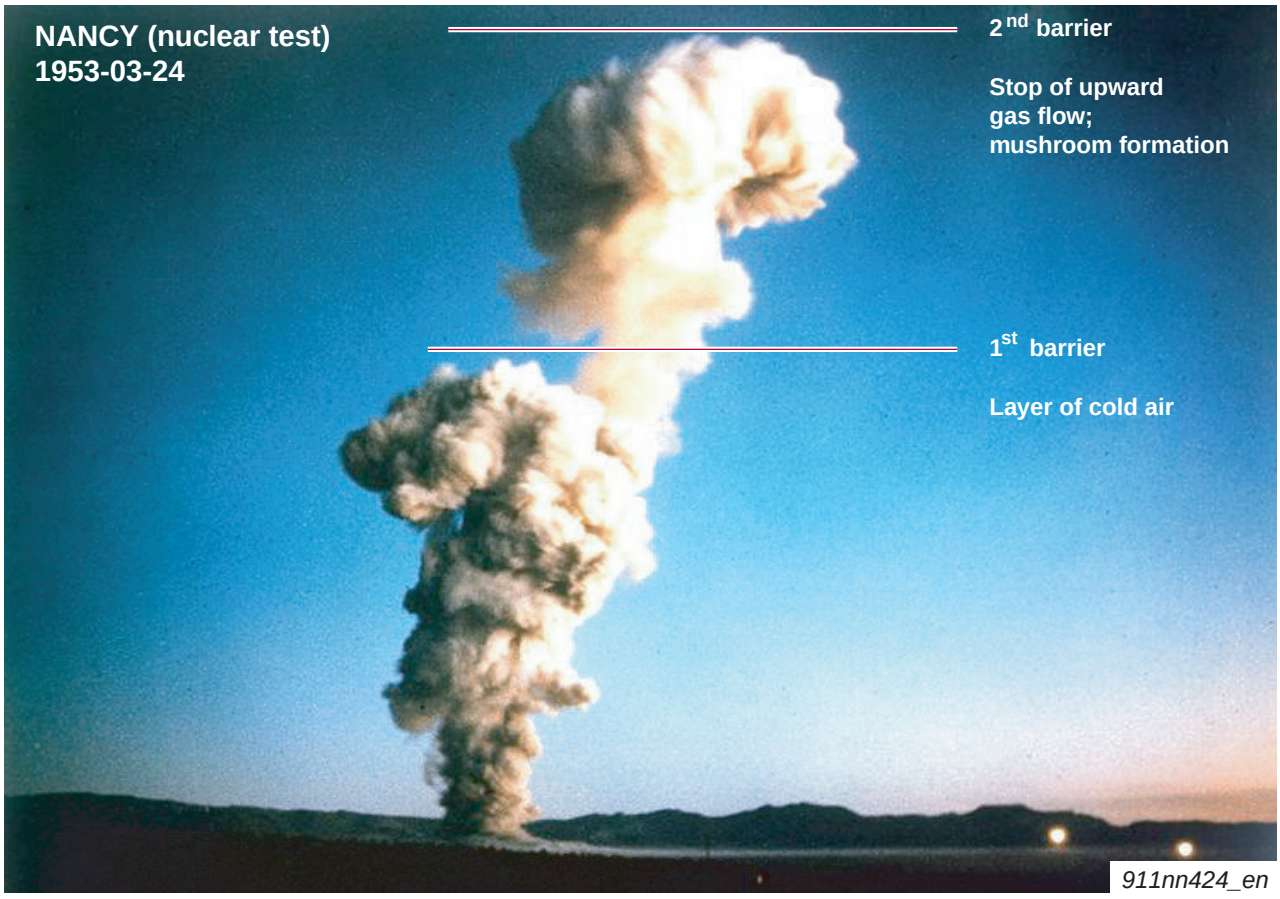


Fig. 3-2 Source: http://commons.wikimedia.org/wiki/File:Upshot-Knothole_Nancy_001.jpg

The suggested model gives a plausible explanation for the formation of offset mushroom cloud stages and different ascension heights of the sidelines.

	Line B	Line C	Line A	Line D	Line H
Observed ascension height [m] of the sidelines above WTC 7	approx. 600 m		approx. 800 m		approx. 1,300 m

Tab. 3-1 Comparison / interpretation

4 Vortex in the mushroom cloud above Building 7

Observation

The central mushroom cloud rising up from the foundation of the destroyed office Building 7 still developed a vortex (tubular form of water vapor) at a high altitude.

For a vortex to develop, the mushroom cloud rising up must be highly energetic.

Fig. 4-1 Source @1:10 PM: http://www.youtube.com/watch?v=JnLcUxV1dPo

Model approach

A vortex is caused by friction between hot [inner] gases of the mushroom cloud and the cold ambient air with a simultaneous condensation of water vapor.

The formation of a vortex is a typical characteristic for nuclear weapon explosions.

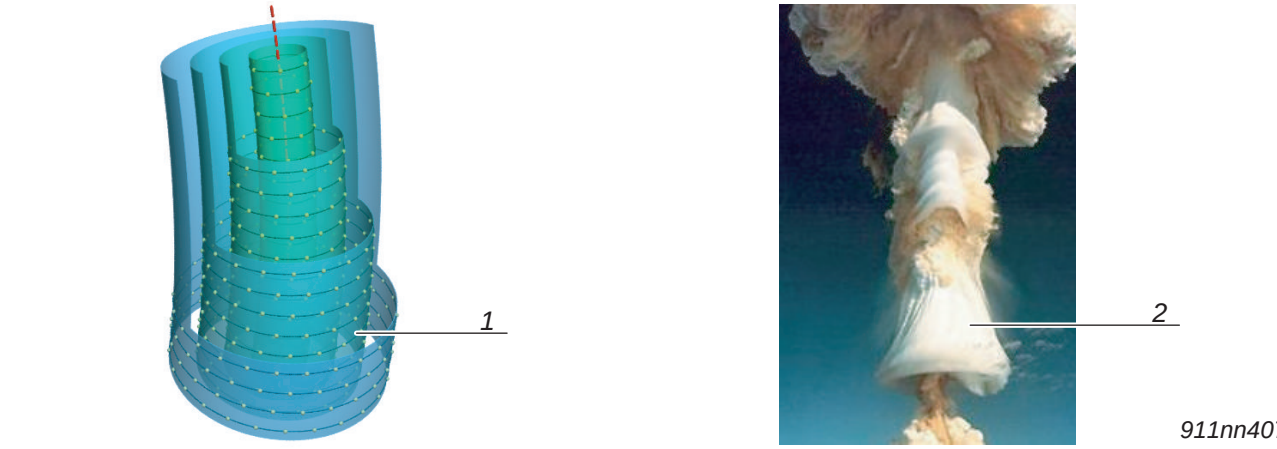


Fig. 4-2 Source 1: http://en.wikipedia.org/wiki/Vortex / source 2: https://www.flickr.com/photos/epicfireworks/3542212906/

1 Schematic diagram

2 Nuclear vortex above Bikini Atoll

Comparison / interpretation

The formation requires a high-energy center below the mushroom cloud that causes hot air to rise into cold air layers.

In the friction zone between hot and cold air rotation and condensation phenomena occur (white, bell-shaped or tubular, partly rotating structures).

The suggested model gives a plausible explanation for the formation of a vortex.

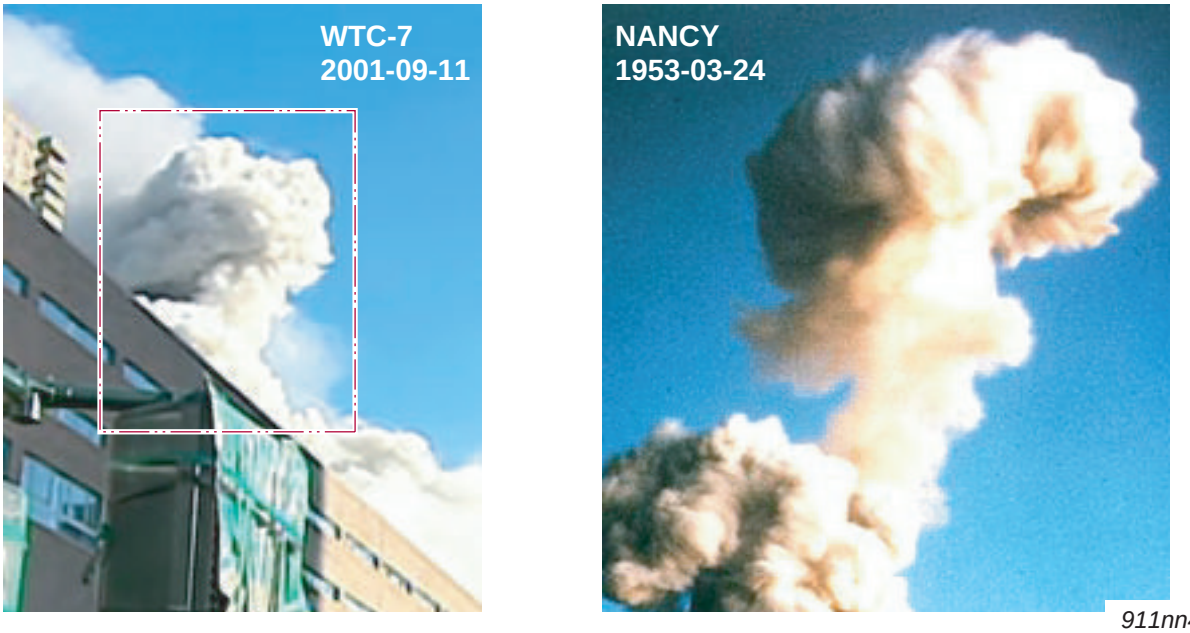


Fig. 4-3 *Source 1: @14:47: https://www.youtube.com/watch?v=YPupW4jHO58*
Source 2: http://commons.wikimedia.org/wiki/File:Upshot-Knothole_Nancy_001.jpg

LOCAL VIDEO: **Free fall and mushroom cloud at an early stage (PRIOR TO vortex formation)**

www.911history.de/04.mp4

Source 03:40 – 05:20: https://www.youtube.com/watch?v=--RXPXzHOJE

Fig. 4-4 *Destruction of WTC7; source: @05:00: https://www.youtube.com/watch?v=--RXPXzHOJE*

5 Formation of the dust cloud stem (North Tower)

Observation

The cloud ascending after the collapse of the North Tower had characteristics typical for the formation of a “cloud stem”.

Fig. 5-1 *Source 1: http://911research.wtc7.net/wtc/evidence/photos/collapses.html*
Source 2: http://commons.wikimedia.org/wiki/File:Upshot-Knothole_Nancy_001.jpg

Model approach

On principle, the development of a cloud stem is a well-known fact.

It generally occurs during nuclear weapon explosions, or rather for a cloud stem to develop, an extremely hot energetic center is required, a center that supplies the cloud stem at ground level with thermal energy for a couple of seconds.

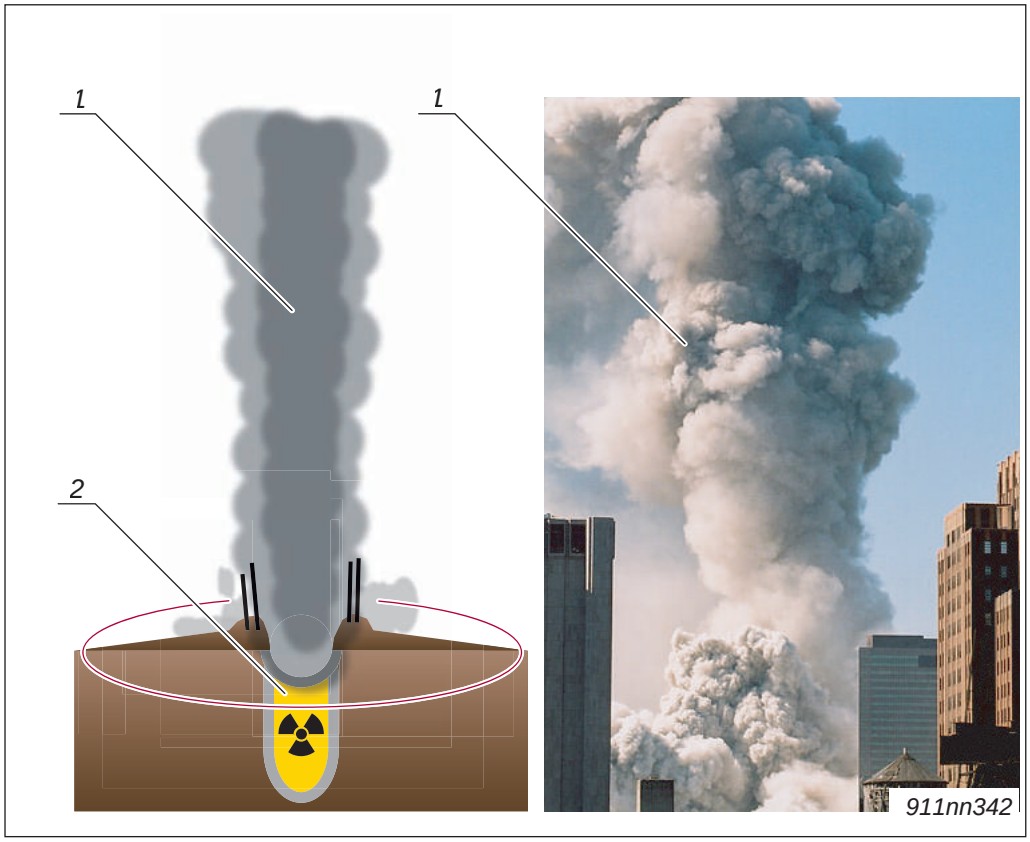


Fig. 5-2 Source (photo): http://911research.wtc7.net/wtc/evidence/photos/wtc1exp1.html

1 Nuclear cloud stem **2** Energetic center

Comparison / interpretation

The suggested model gives a plausible explanation for the formation of a cloud stem.

LOCAL VIDEO: **Stem formation and pyroclastic flow**

www.911history.de/61.mp4

Source @ 26:50: http://www.youtube.com/watch?v=eEwSHkQvTI8

6 Stem formation of the dust cloud (South Tower)

Observation

In the cloud rising up after the collapse of the South Tower the formation of a low cloud stem could be observed for a short time.

Fig. 6-1 Source: http://911research.com/wtc/evidence/photos/wtc2dust4.html

1 Nuclear cloud stem

2 Dust cloud made of steel and pulverized concrete shooting up

Model approach

The formation of the South Tower's cloud stem was less distinctive than the one at the North Tower.

The aftermath of the explosion is overshadowed by a steel / concrete dust cloud that develops rapidly.

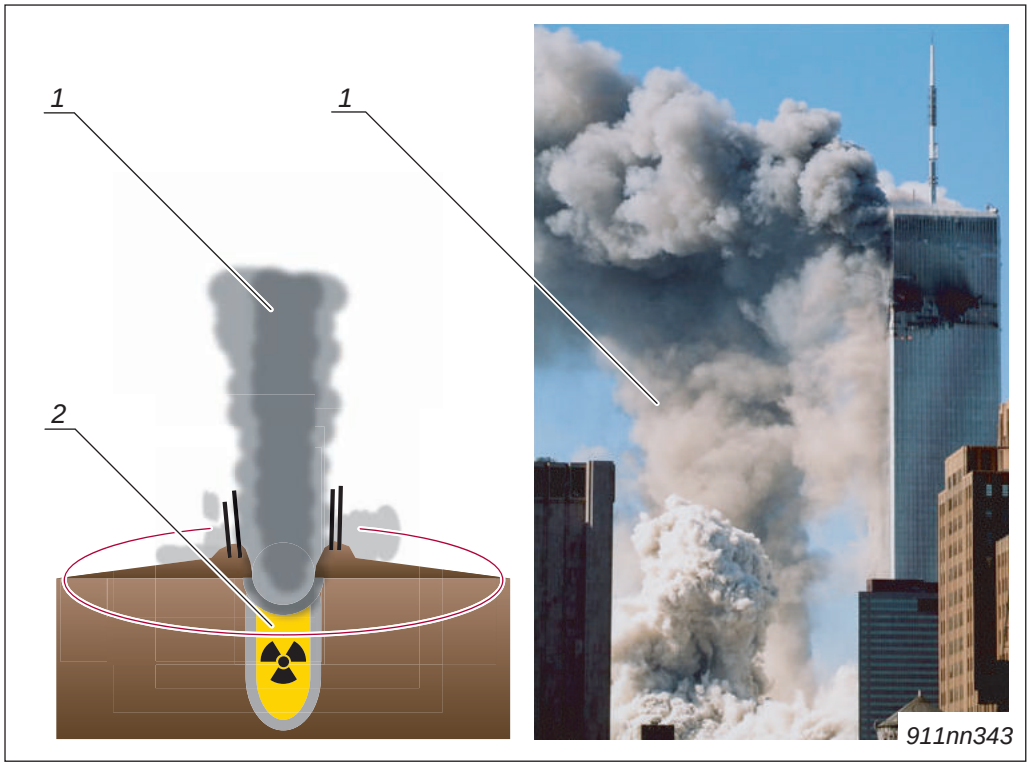


Fig. 6-2 Source (photo): http://911research.wtc7.net/wtc/evidence/photos/wtc2exp1.html

1 Nuclear cloud stem **2** Energetic center

Comparison / interpretation

The suggested model gives a plausible explanation for the formation of a cloud stem.

Fig. 6-3 Source: http://911research.wtc7.net/wtc/evidence/photos/wtc2exp12.html

7 Formation of dust cloud zones (North Tower)

Observation

Two different kinds of dust clouds could be observed on both twin towers during their disintegration, the cloud types were clearly separated.

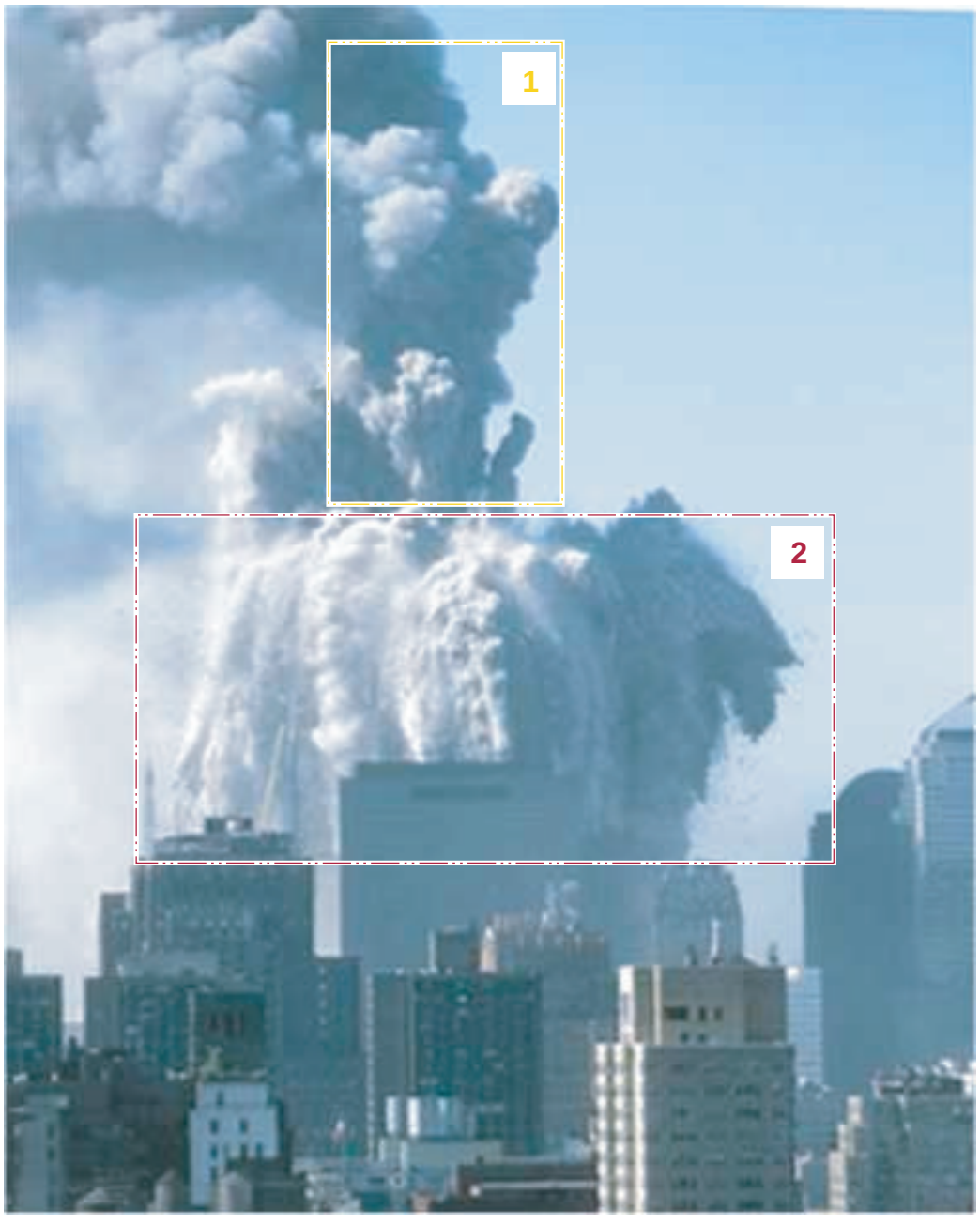


Fig. 7-1 *Source: http://911research.com/wtc/evidence/photos/wtc1exp6.html*
Source @07:35 (HD Cumulus: 'The Spire'): https://www.youtube.com/watch?v=DUqTG9LKzJ4

1 Vaporized steel (black)

2 Pulverized facade (white)

Model approach

There are two different processes:

- Vaporization of the building's core

  Formation of a black, central cloud made of vaporized steel (item 1)

- Pulverization of the outer wall due to steam explosions

  white, outer cloud made of pulverized matter (item 2)

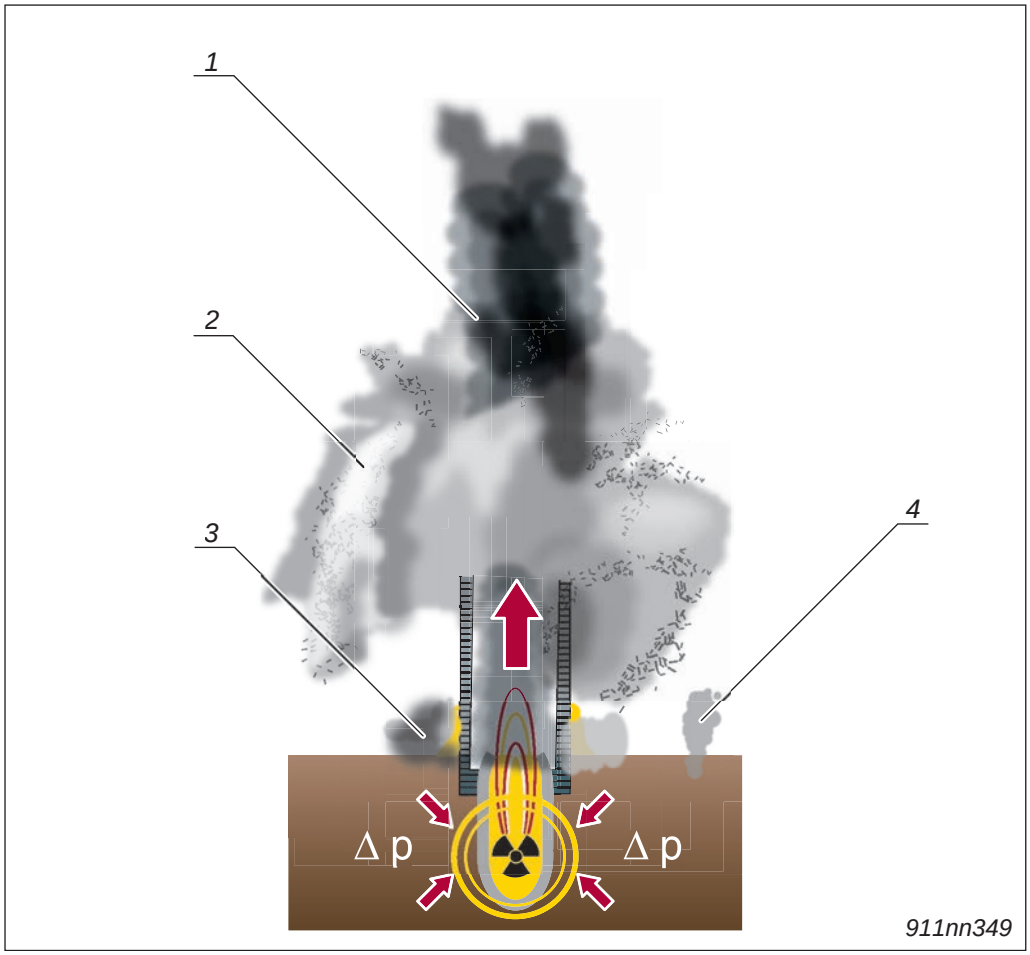


Fig. 7-2 Source (edited, original by Dimitri A. Khalezov): http://en.wikipedia.org/wiki/File:Nuclear-demolition-damages.jpg

1 Vaporized core of the building
2 Pulverized outer shell
3 Ejection of flames on the foundation of the building
4 Gas outbursts from the rockbed

- Information on Ejection of flames on the foundation of the building

  ➔ Page 31-1, Chapter 31

- Information on Gas outbursts from the rockbed

  ➔ Page 21-1, Chapter 21

Comparison / interpretation

The suggested model gives a plausible for the formation of two different zones within the dust cloud.

8 Zoning of the dust cloud (South Tower)

Observation

During the South Tower's disintegration a clear distinction of two different kinds of dust clouds with a distinct central cloud could be observed.

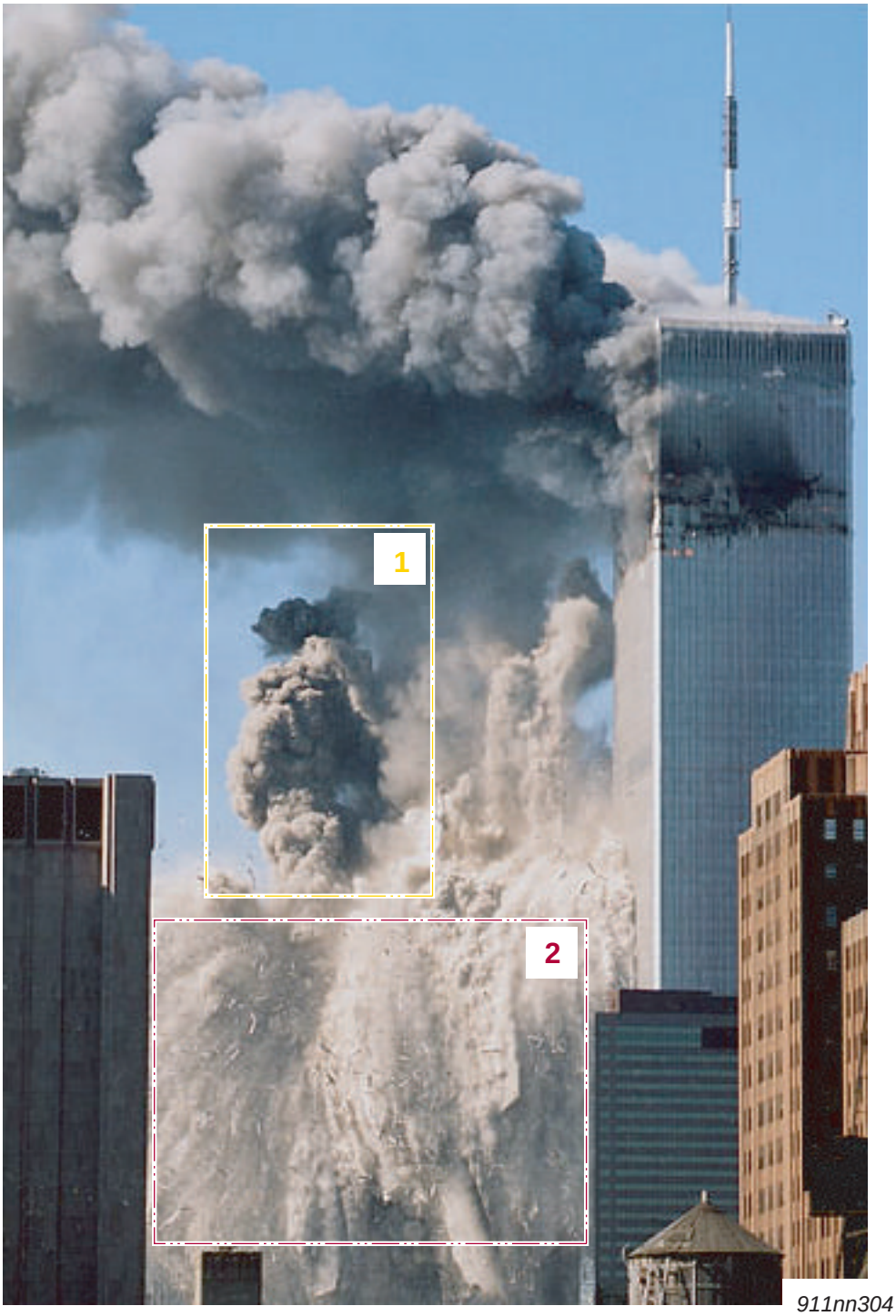


Fig. 8-1 Source: http://911research.wtc7.net/wtc/evidence/photos/collapses.html

1 Vaporized steel (black)

2 Pulverized facade (white)

Model approach

Both twin towers consisted of a steel core and an outer steel frame.

They werespecially built that way after a B-25 plane had crashed into the Empire State Building in 1945 so that the impact of a large airplane would not cause the building to collapse – the plan was to transfer high energy flows to the inside.

Two different processes are detected for the disintegration:

- Vaporization of the building's core [e.g. by sublimation]
  in the picture of the tower under construction: the **steel core** is outlined in yellow
- Pulverization of the exterior wall [e.g due to steam explosions]
  in the picture of the tower under construction: the **steel frame** is outlined in red

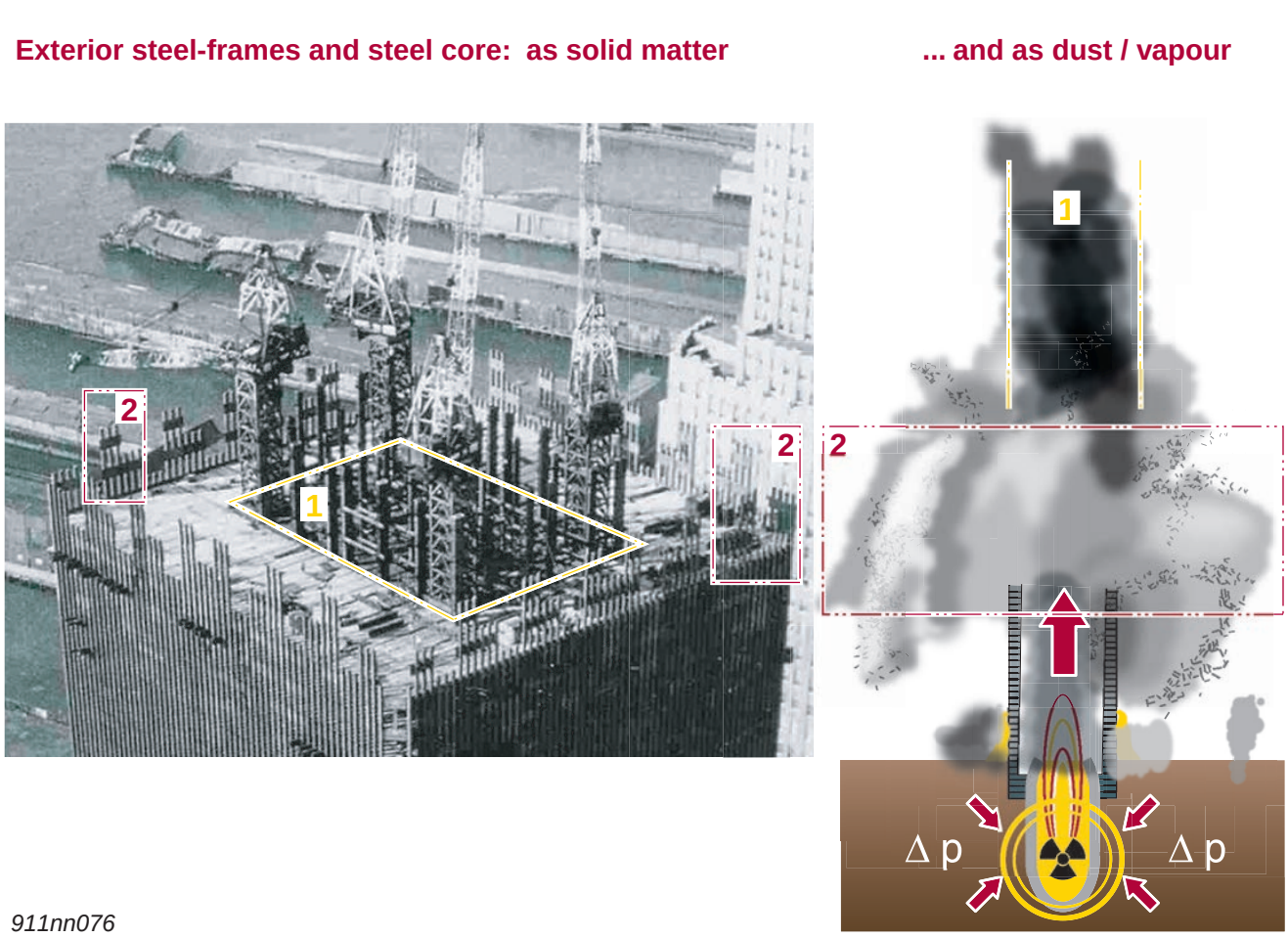


Fig. 8-2 Source: https://sites.google.com/site/wtc7lies/wtccoreconstruction

1 Inner steel beams of the building's core (outlined in yellow)

2 Outer steel frame / steel grid to absorb bending forces (outlined in red)

Comparison / interpretation

The suggested model gives a plausible explanation for the formation of two different zones within the dust cloud (sublimate core of the building / steam explosions at the facade).

9 Fountain formation during material ejection (North Tower)

Observation

The twin towers ejected their own material from the inside to the outside like during an eruption – partly taking on the form of a ballistic parabola.

Ejection of material mapped graphically

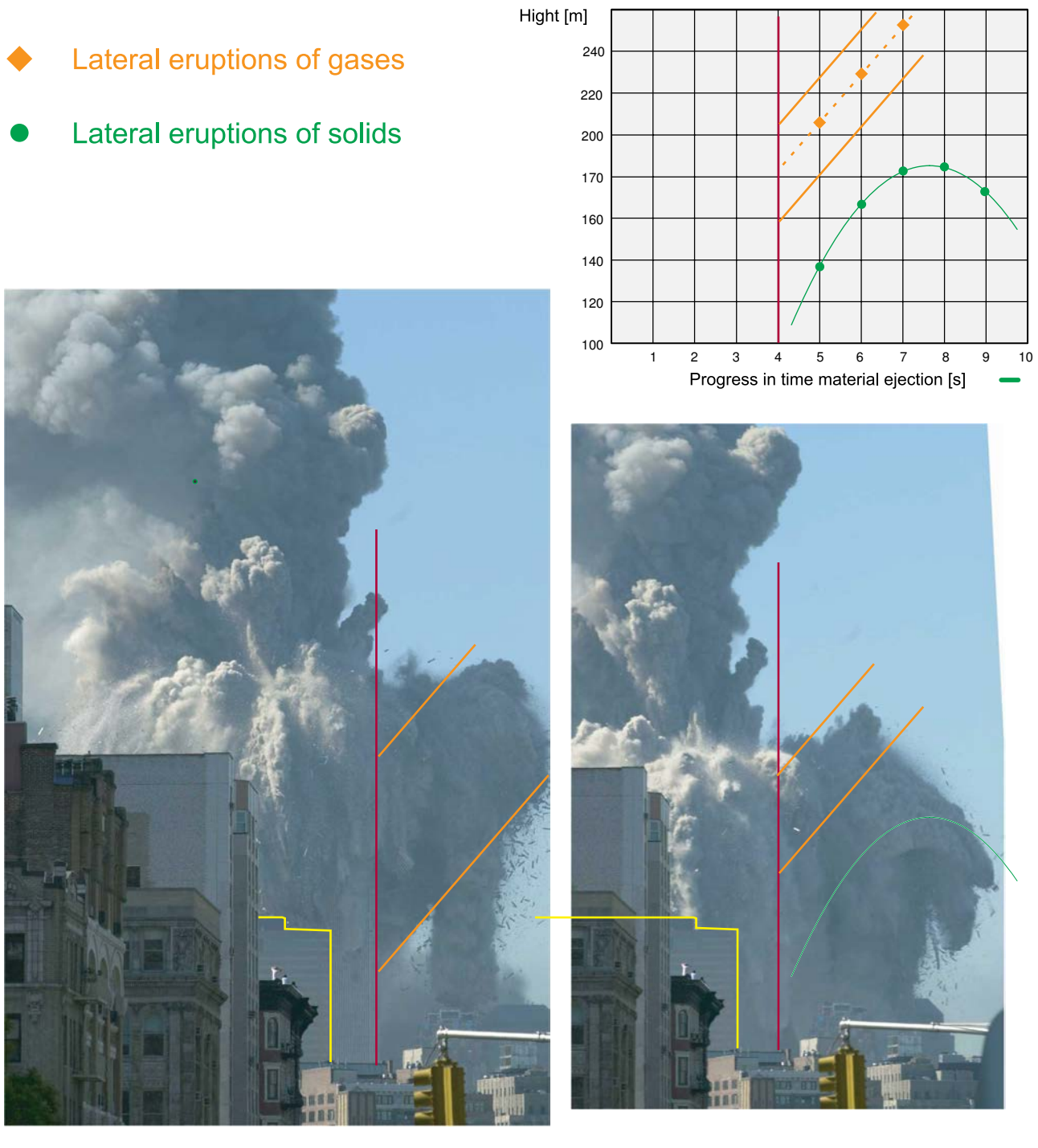


Fig. 9-1 Source: http://911research.wtc7.net/wtc/evidence/photos/wtc1exp21.html

Model approach

The ejection behavior can be compared to a water fountain shooting up shortly only to collapse back upon itself.

Height and form of the water jet, as well as the formation of the droplets, mainly depend on:

- the pressure inside the nozzle
- the inclination of the nozzle

Comparison / interpretation

The suggested model gives a plausible explanation for the fountain-like ejection of material.

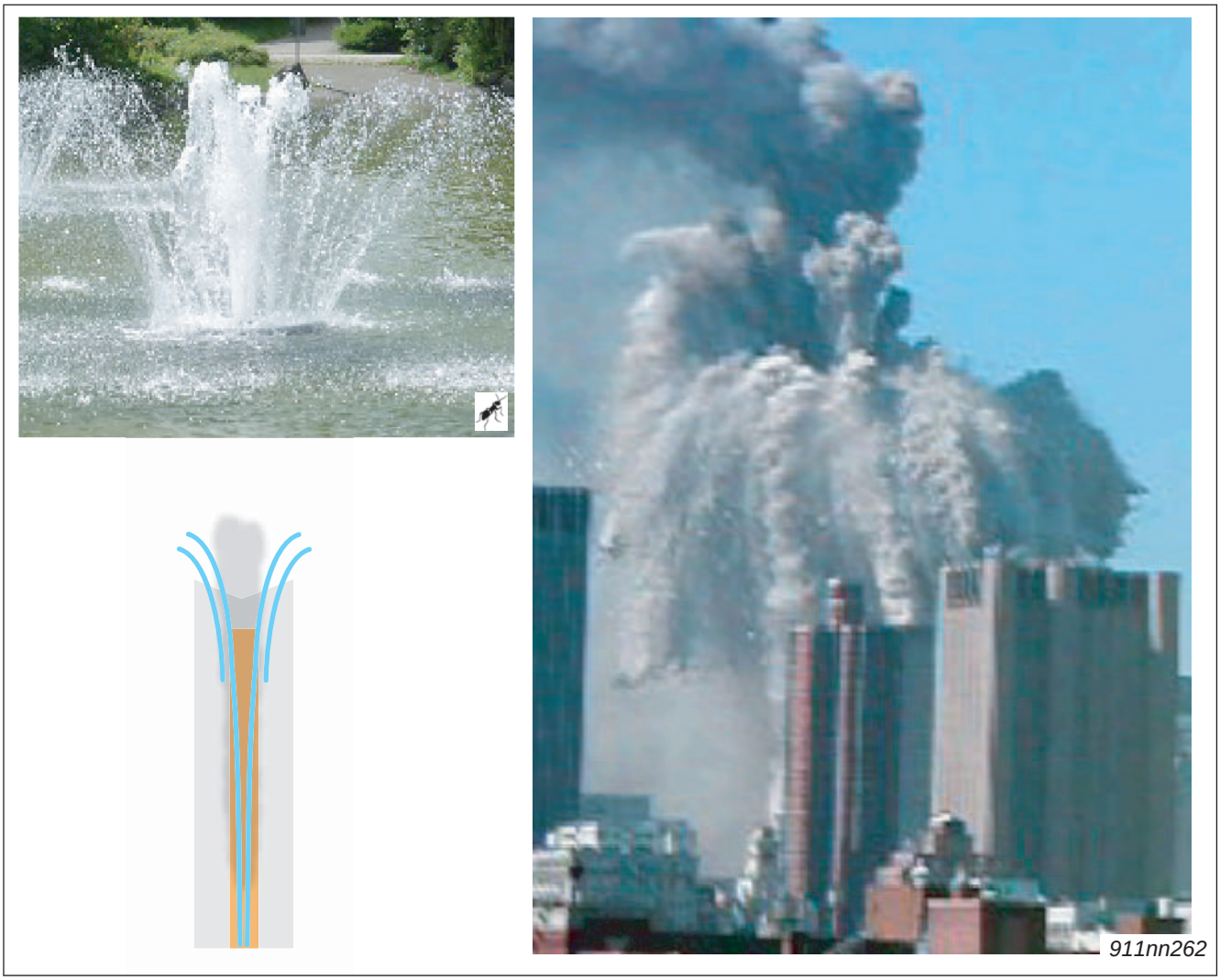


Fig. 9-2 *Source 1: http://www.ju-greber.de/MUC-Springbrunnen03-40.html*
Source 2: http://911research.wtc7.net/wtc/evidence/videos/nt_east.html

LOCAL VIDEO: **Pulverization of the facade and material ejection (slow motion)**

www.911memorial4kids.org/videos/WTC1_disintegration_Slow_Motion_material_ejection.mp4

Source: https://www.youtube.com/watch?v=dueVm1UGvXo

10 Fountain formation during material ejection (South Tower)

Observation

An eruption-like behavior could obviously be observed for the South Tower. The South Tower's point of pressure compensation [impact spot] was located at a lower position as in the case of the North Tower.

The upper part tipped to the side when the destruction process began and released the black central cloud.

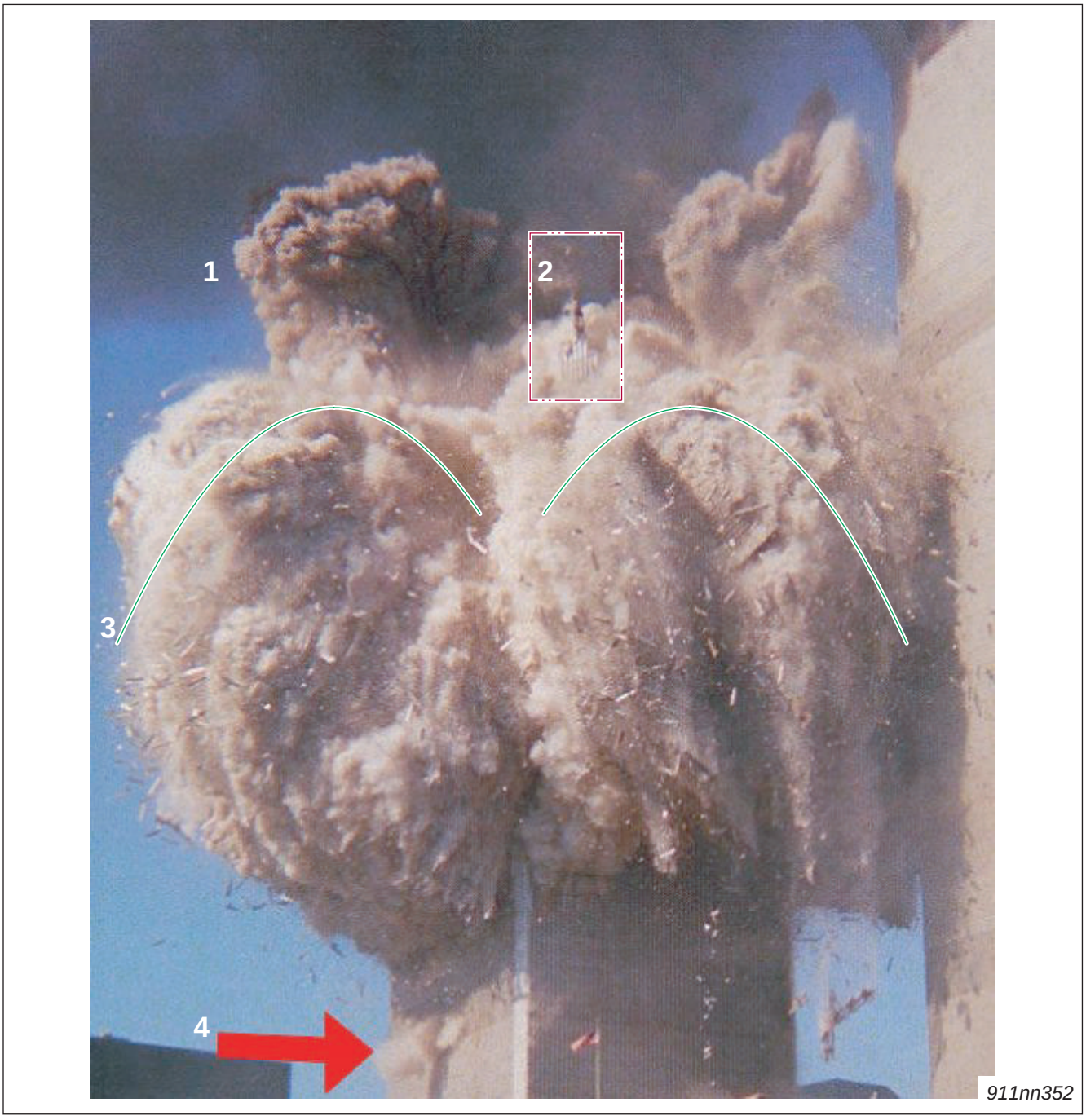


Fig. 10-1 Source: http://911research.wtc7.net/wtc/evidence/photos/wtc2exp2.html

1 Black central cloud (core of the building)
2 Building structure still intact
3 Ejected material
4 Steam explosion of the facade

Model approach

For the South Tower the ejection behavior can also be compared with a water fountain shooting up briefly and collapsing back upon itself.

The model remains the same. Height and form of the fountain depend on:

- the pressure inside the nozzle
- the inclination of the nozzle

Comparison / interpretation

The suggested model gives a plausible explanation for the fountain-like material ejection.

For the disintegration pattern of the South Tower, a more distinct V shape developed:

- the tilting tip briefly acted as mechanical obstacle

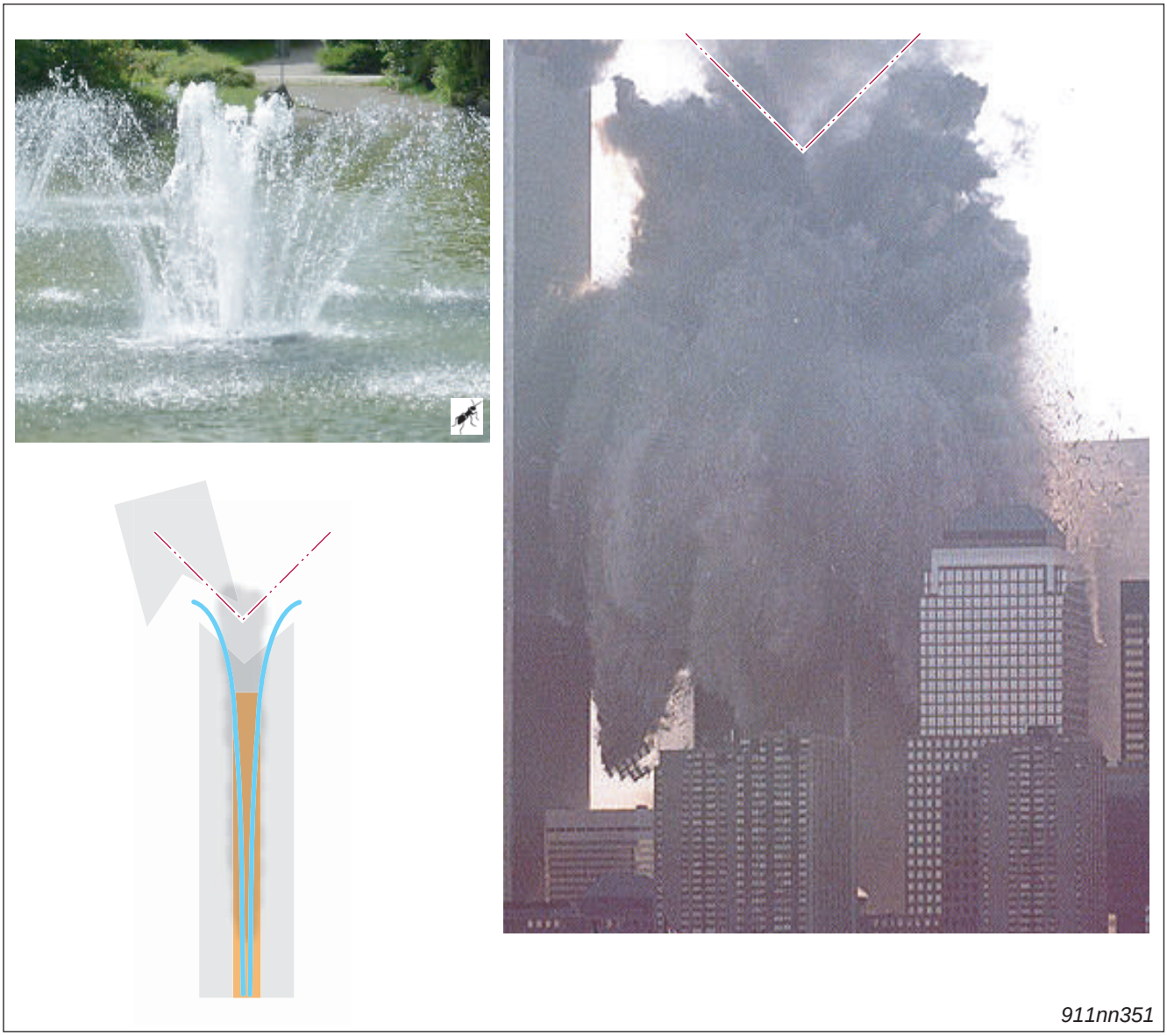


Fig. 10-2 Source 1: http://www.ju-greber.de/MUC-Springbrunnen03-40.html
Source 2: http://911research.wtc7.net/wtc/evidence/photos/wtc2exp12.html

11 Formation of the ‘Spire’ (North Tower)

Observation

Material was shooting up [inside] and crashing down [outside] simultaneously during the disintegration in both of the twin towers.

Outer structures close to the ground surface remained standing for a couple of seconds before collapsing. These structures were nicknamed ‘Spire’.

Fig. 11-1 Source: http://911research.com/wtc/evidence/photos/wtc1dust1.html

1 The Spire: remnant of the building still standing, North Tower

2 Building 7 with a height of 190 m destroyed at 5:20 PM on 9/11

Model approach

It is assumed that a “shot from the foundation” caused the characteristic form of the remaining structures and thus the development of the ‘Spire’.

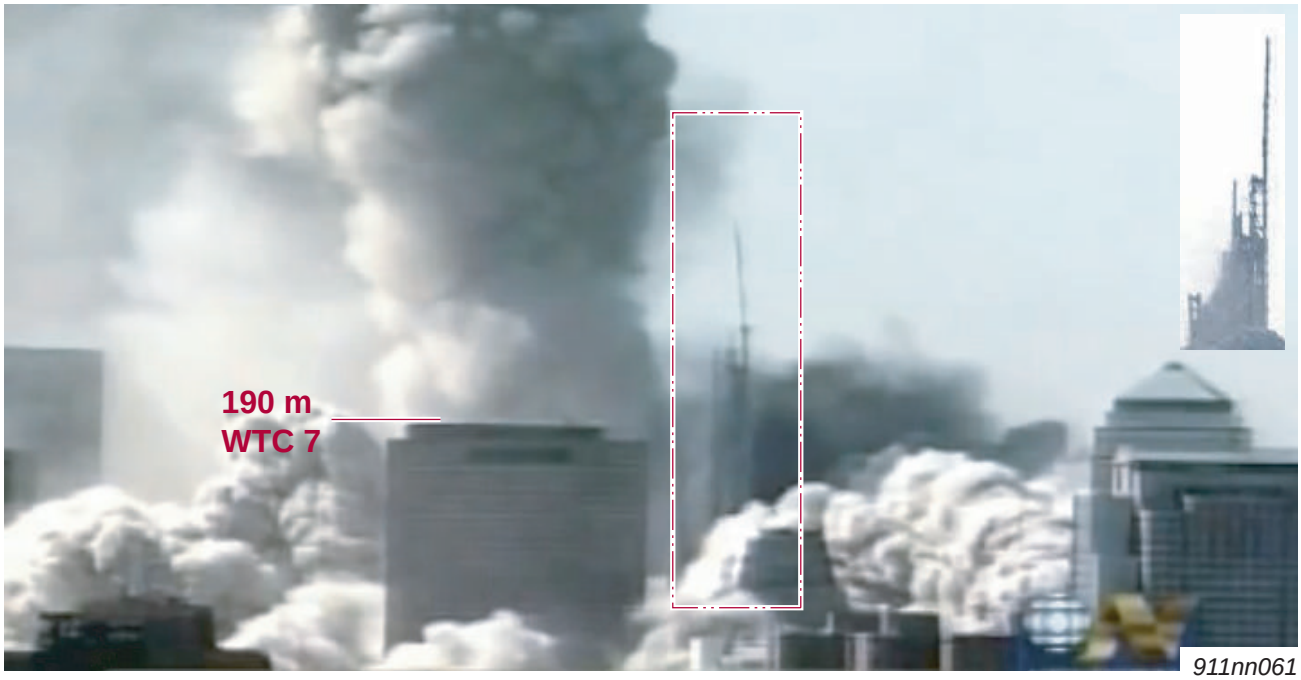


Fig. 11-2 Source @3:52 AM: http://www.youtube.com/watch?v=ecv0p8JWsqU

Comparison / interpretation

The structure of molecularly dissociated steel rose up into the sky for more than 200 m before collapsing as dust cloud.

The suggested model gives a plausible explanation for the formation of the North Towers ‘Spire’ with a height of over 200 m and its subsequent disintegration.

Fig. 11-3 Source: 01:19:28: https://www.youtube.com/watch?v=zcYfyKnjuD8

12 Formation of the ‘Spire’ (South Tower)

Observation

At the time of the pressure compensation, a huge wave of red-hot, liquid ejected material could be observed at the point of rupture on the South Tower.

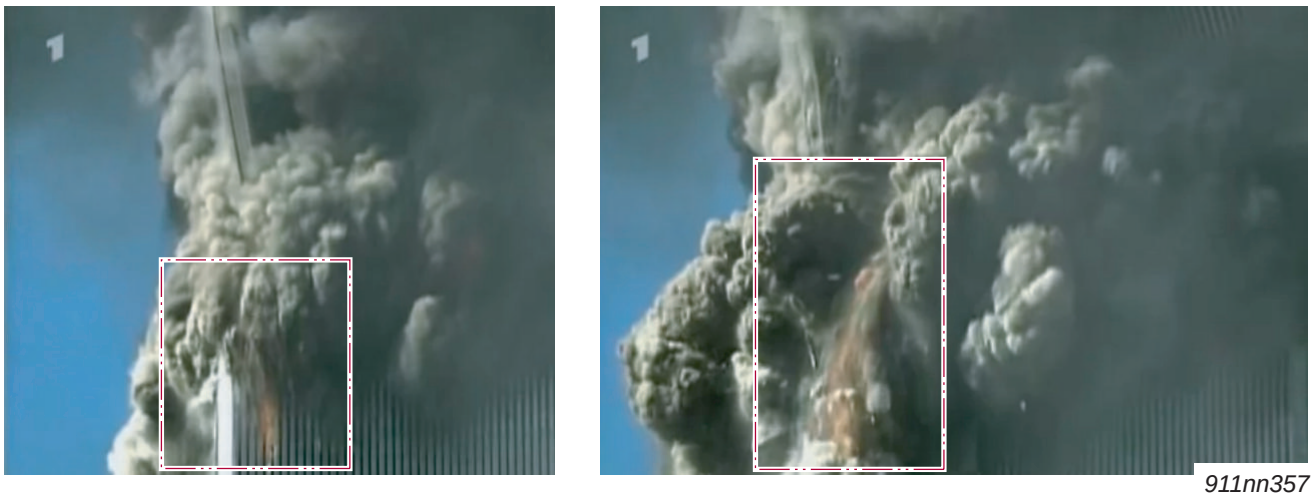


Fig. 12-1 Source (@07:59 / @08:01): http://www.youtube.com/watch?v=k_64RigP1Fk

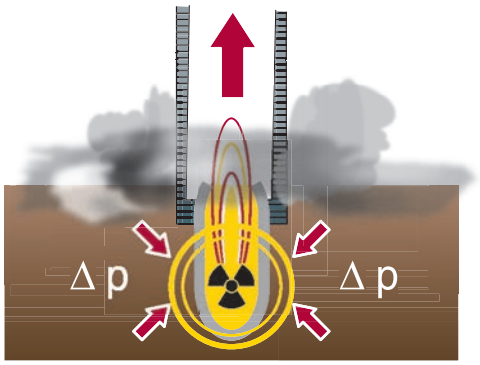
Some outer structures developed temporarily in the middle of the South Tower before they were torn down.

Fig. 12-2 Source @8:06 AM: http://www.youtube.com/watch?v=k_64RigP1Fk

Model approach

A “shot from the foundation” acts as grazing shot on the facade according to the model approach.

Outer structures therefore remain standing at ground level.



911nn341

Fig. 12-3 Source (edited, original by Dimitri A. Khalezov): http://en.wikipedia.org/wiki/File:Nuclear-demolition-damages.jpg

Comparison / interpretation

The suggested model gives a plausible explanation for the [short-term] formation of the ‘Spire’ in the center of the South Tower and for the remains of the facade on the ground.

911nn057

Fig. 12-4 Source: http://upload.wikimedia.org/wikipedia/commons/f/f7/WTC-remnant_highres.jpg

LOCAL VIDEO: **Pulverization of the facade and material ejection (slow motion 50%)**

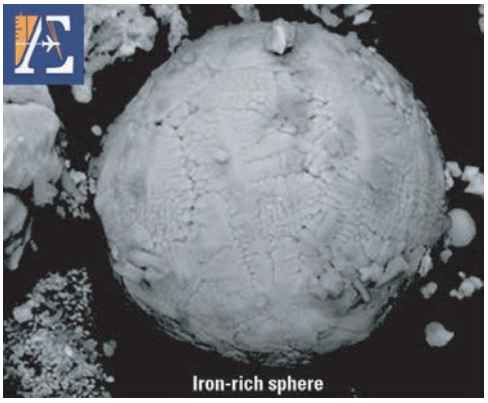
www.911memorial4kids.org/videos/WTC2_disintegration_Slow_Motion_material_ejection.mp4

Source (07:55 AM to 08:08 AM): https://www.youtube.com/watch?v=k_64RigP1Fk

13 Microscopic droplets of solidified steel

Observation

Microscopic examination shows that the dust of the destroyed WTC contains billions of microscopic iron droplets.



911nn415

Fig. 13-1 Source: http://www1.ae911truth.org/en/news-section/41-articles/348

Model approach

Nuclear process: the steel inside the towers vaporized abruptly at temperatures of way more than 3,000 °C due to the absorption or scattering of fast neutrons in the iron nuclei.

Liquefaction of iron

- Iron melts at a temperature of 1,538 °C
- Iron boils at a temperature of 3,000 °C

Formation of iron droplets

Just like raindrops in a thundercloud the iron vapor initially condensed in the form of microspheres (liquid) and solidified afterwards.

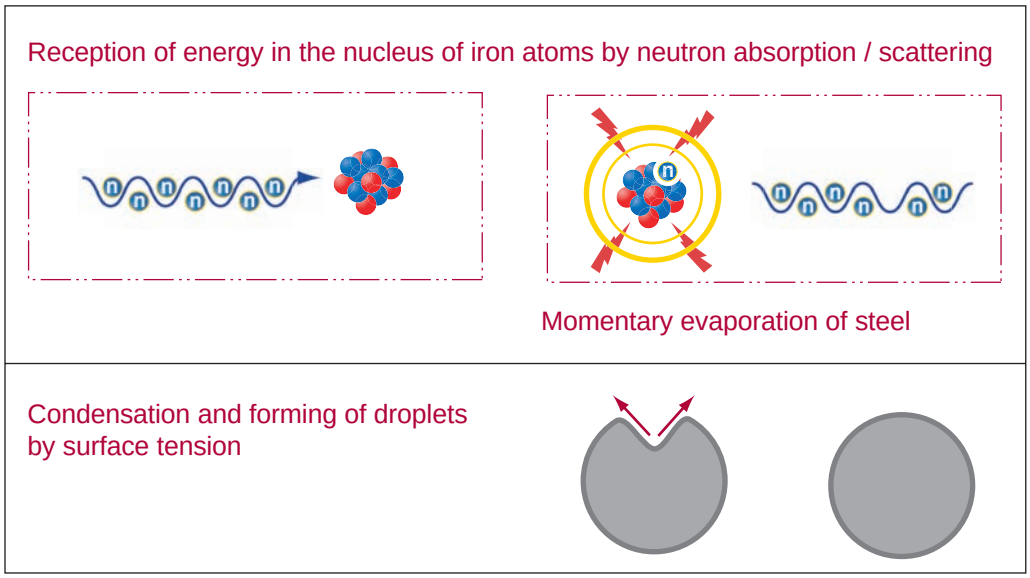


Fig. 13-2 Source: http://de.wikipedia.org/wiki/Oberfl%C3%A4chenspannung

Crystal growth

Due to the intermolecular attractive forces, all liquids aim to minimize the surface.

The droplets resulting from the iron vapor act as growth nucleus for the iron sphere – just like the formation of hailstones in a thunderhead.

Process:

- Formation of an [elementary] droplet
- At approx. 2,000 °C other atoms join the iron droplet
- Integration into the crystal structure – the droplet grows

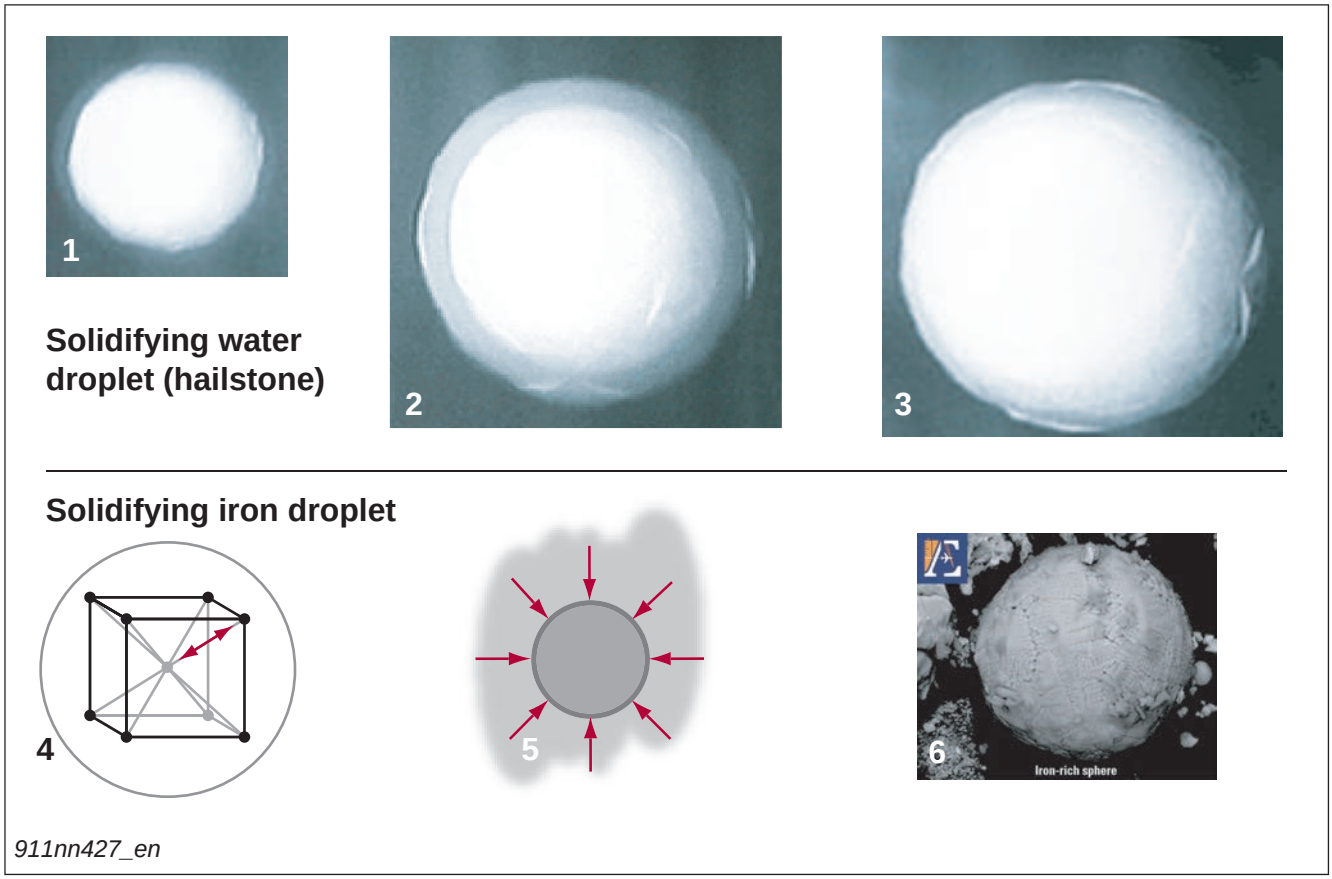


Fig. 13-3 Source: http://www.sturmwetter.de/texte/hagelentstehung.htm

1 H_2O: Frozen water drop
2 H_2O: Water molecules joining the structure
3 H_2O: integration into the crystal
4 Fe: crystal lattice structure of iron
5 Fe: Adsorption of further iron atoms
6 Fe: finished iron droplet

Comparison / interpretation

The suggested model gives a plausible explanation for the formation of the iron droplets by means of condensation and a subsequent growing process (absorption of fast neutrons, formation of iron isotopes, sublimation, condensation and solidification).

14 Molecular dissociation

Observation

Iron and concrete disintegrated to fine dust particles while tons of paper endured the destruction process of the twin towers and were blown through the streets of Manhattan.

Fig. 14-1 Source 1 @01:09:09 / @01:09:11 [9/11 Mysteries: Demolitions]: https://www.youtube.com/watch?v=2O7LwySqtr4
Source 2 @00:10 [wtc site night, debris, airborne paper]: https://www.youtube.com/watch?v=aJo43PCHfDY

Pulverization of steel due to the excitation of the iron crystal and its destruction

Chemical process of the atomic shell: it depends on the absorbance of the molecular structure if chemical bonds can be broken by a short energetic radiation pulse.

- **Iron / concrete** have a high absorbance

  the absorbed energy destroys the molecular bonds
- **light materials such as paper** have a low absorbance

  the energy does not suffice to break the molecular bond

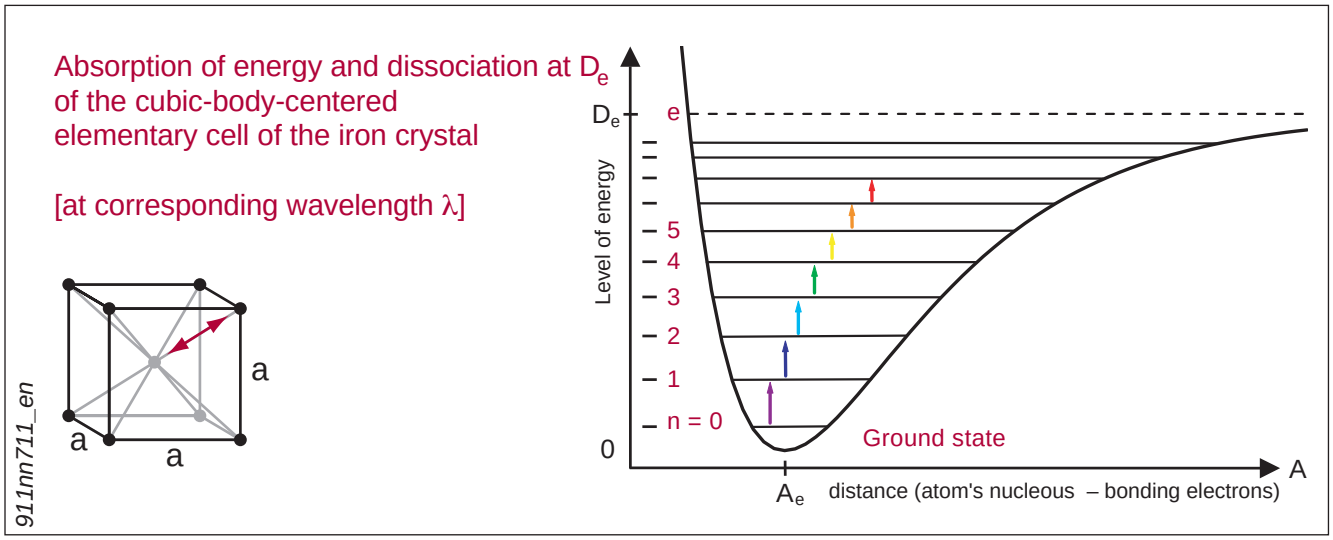


Fig. 14-2 *Source 1: http://de.wikipedia.org/wiki/Eisen#/media/File:Cubic-body-centered.png*
Source 2: edoc.ub.uni-muenchen.de/1215/1/Windhorn_Lars.pdf

Once the absorbed energy exceeds the nuclear binding energy of the iron crystal, the molecular structure dissolves, i.e. it dissociates.

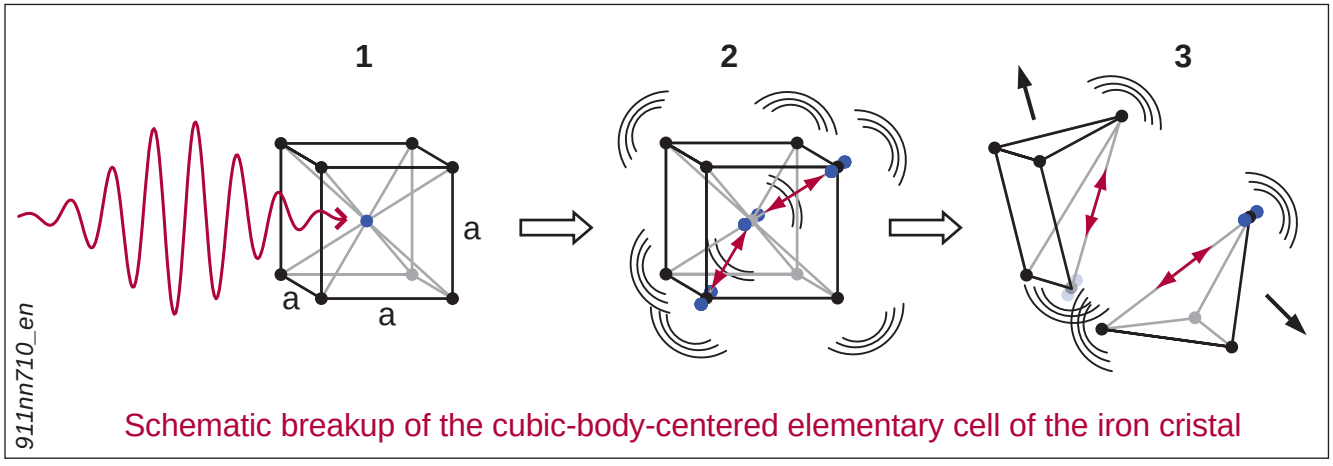


Fig. 14-3 *Source: edoc.ub.uni-muenchen.de/1215/1/Windhorn_Lars.pdf*

1 Condition 1; Energetic radiation hits the molecular structure / metal lattice structure
2 Energy absorption as oscillation
3 Broken lattice structure

Comparison / interpretation

The suggested model gives a plausible explanation (radiation pulse) for the conversion of steel and concrete into tiny dust particles and for the fact that the paper was undamaged.

15 First order nuclear fission processes

Observation

According to the USGS, the approx. 40 dust samples collected at different locations contain different concentrations of uranium as well as barium and strontium which are fission products of uranium.

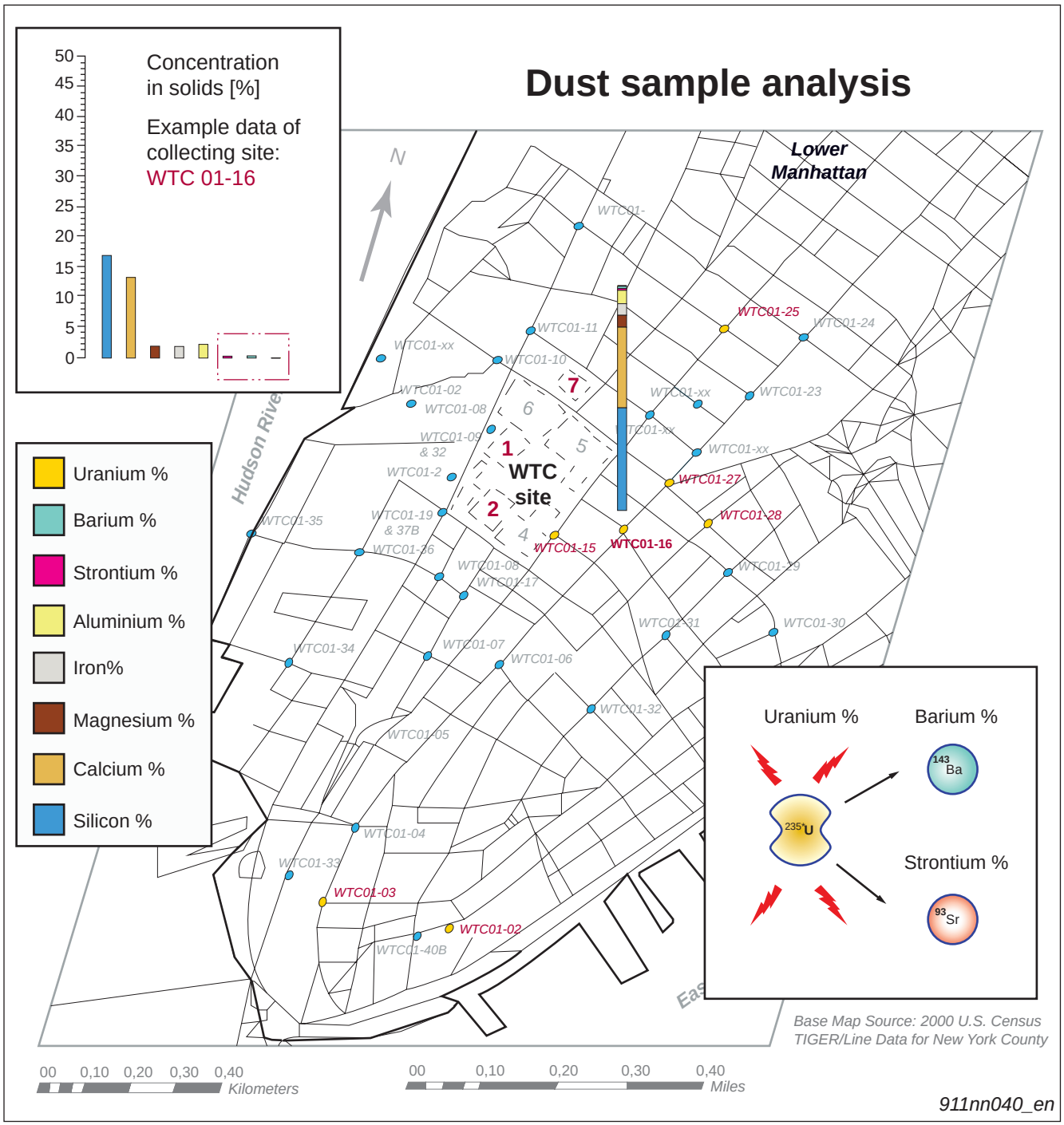


Fig. 15-1 Source (edited): http://pubs.usgs.gov/of/2001/ofr-01-0429/chem1/index.html#Sampling
DOWNLOAD *of the svg file*www.911memorial4kids.org/svg/911nn040_xx.svg

Model approach

The first thing that needs to be checked is whether the proportions of the fission product taken at different “WTC 01-xx” sampling points behave similarly (correlate).

USGS Spectroscopy Lab - World Trade Center USGS Chemistry Table http://pubs.usgs.gov/of/2001/ofr-01-0429/chem1/WTCchemistrytable.html

USGS science for a changing world

	Outdoor dust samples				
	WTC 01-02	WTC 01-03	WTC01-05	WTC01-06	WTC 01-14
Barium ppm	765	376	nm	nm	461
Strontium ppm	1000	409	nm	nm	643
Scandium ppm	8.8	6.6	nm	nm	6.1
Uranium ppm	3.92	1.96	nm	nm	2.89
Cadmium ppm	7.3	3.2	nm	nm	3.4

911nn255

Fig. 15-2 Source: http://pubs.usgs.gov/of/2001/ofr-01-0429/chem1/WTCchemistrytable.html

The quantities of barium and strontium in WTC dust clearly correlate:

- the concentration of barium drops , i.e. the concentration of strontium drops also
- the concentration of barium rises , i.e. the concentration of strontium rises also

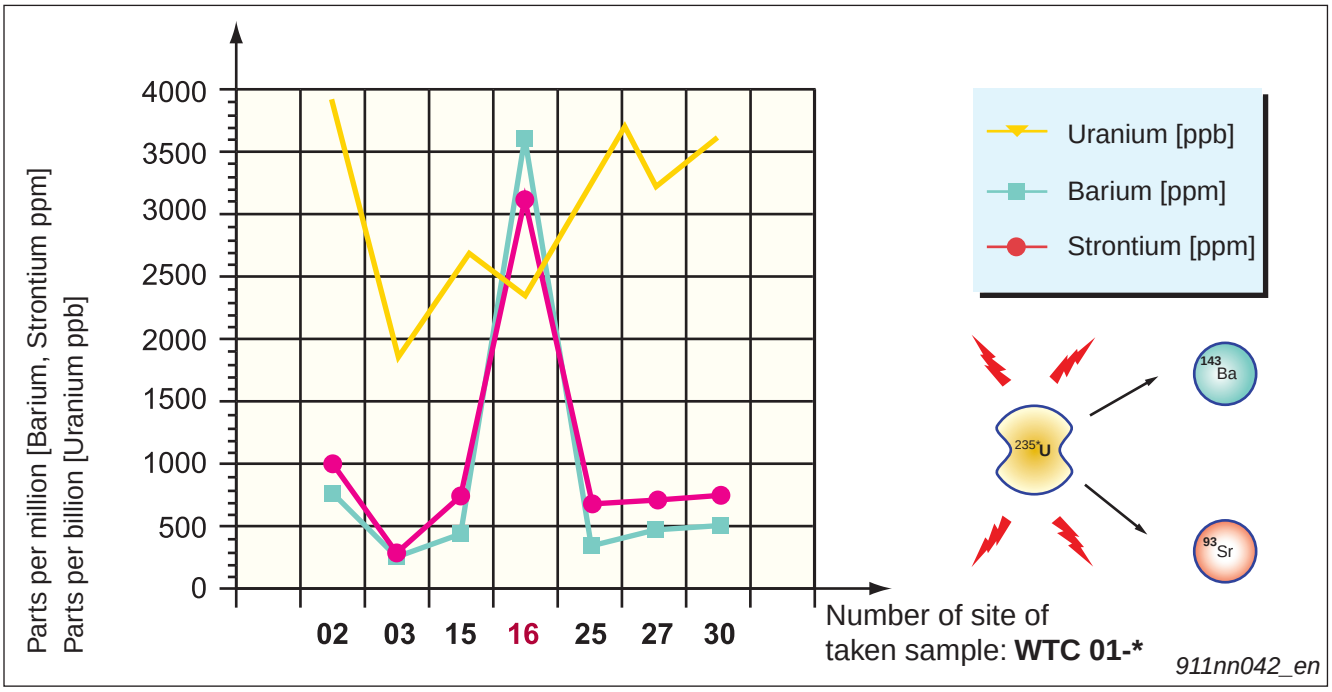


Fig. 15-3 Source (shortened): http://nucleardemolition.com/
DOWNLOAD *of the svg file*www.911memorial4kids.org/svg/911nn042_xx.svg

Comparison / interpretation

A radioactive process has not been verified yet. It is obvious however that the concentrations of both elements are connected.
The elements may derive from the same formation process but it is just as well possible that they come from the same storage location (chemical storage).

16 Second order nuclear fission processes

Observation

When set off, every nuclear weapon produces a characteristic mixture of radioactive elements that is based on the subsequent processes of disintegration.

The "finger print" of a nuclear weapon: a certain mixture of radioactive elements

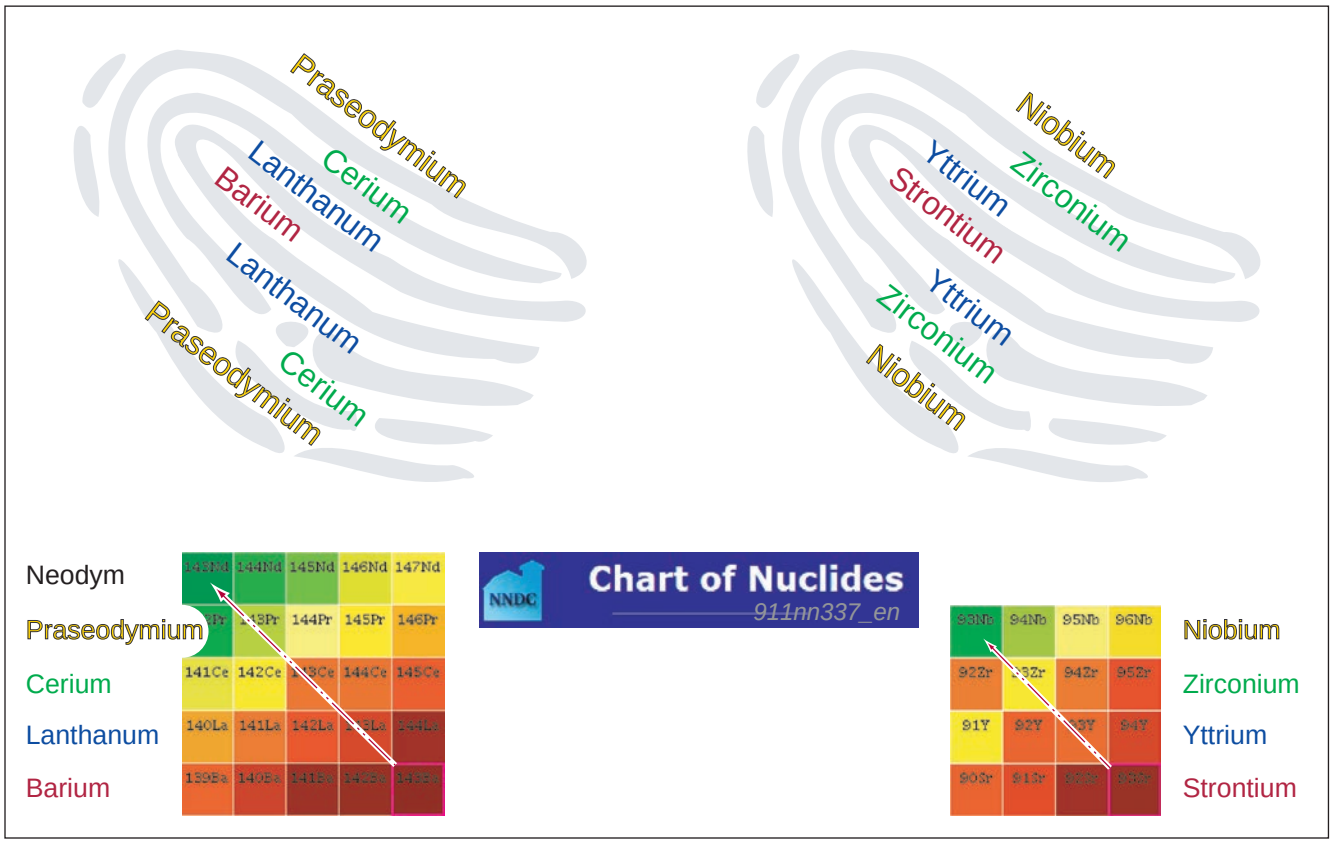


Fig. 16-1 Source: http://www.nndc.bnl.gov/chart/reCenter.jsp?z=26&n=30

Radioactive processes of disintegration – after uranium fission

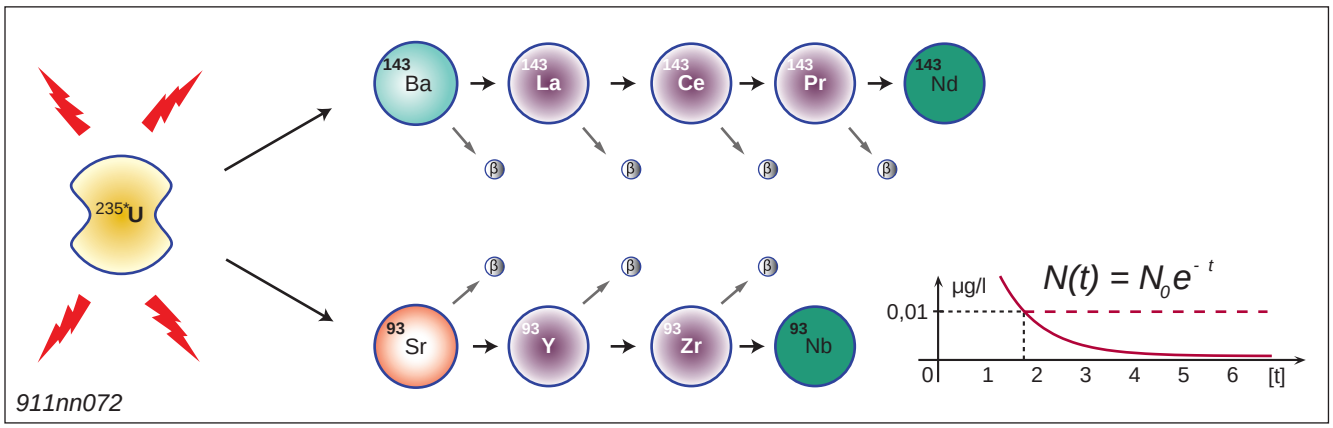
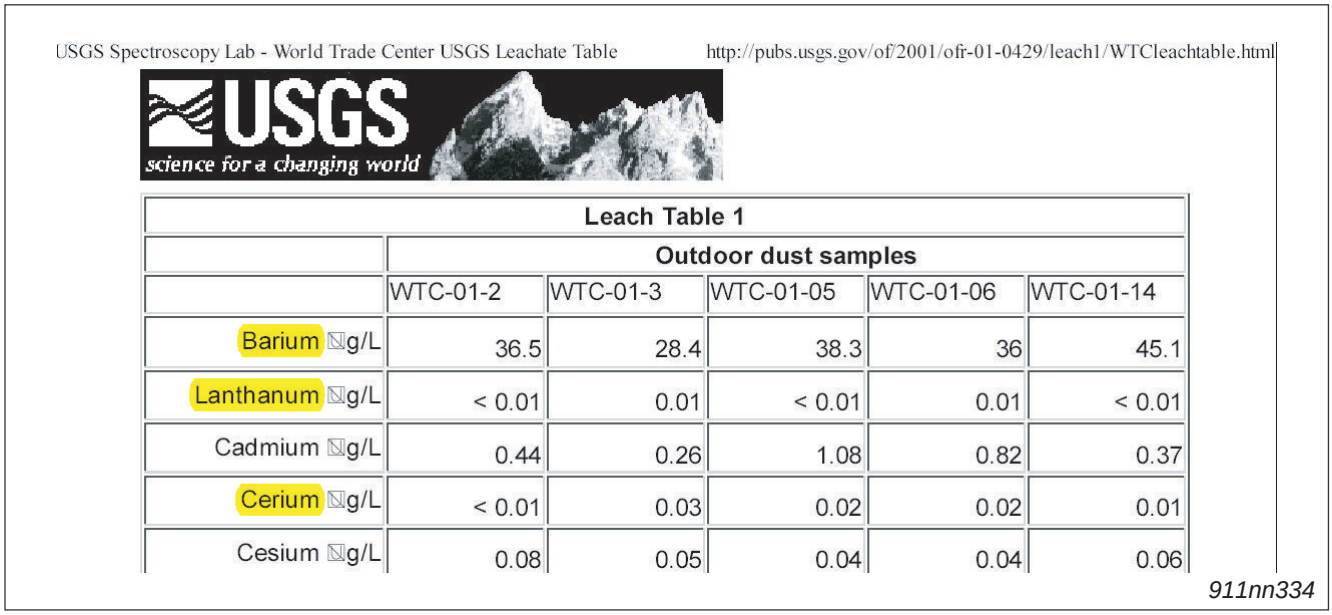


Fig. 16-2 Source (modified): http://www.nucleardemolition.com/

Analysis 1: official results; search terms: "Lanthanum", "Cerium"

The characteristic "finger print" for Barium exists.



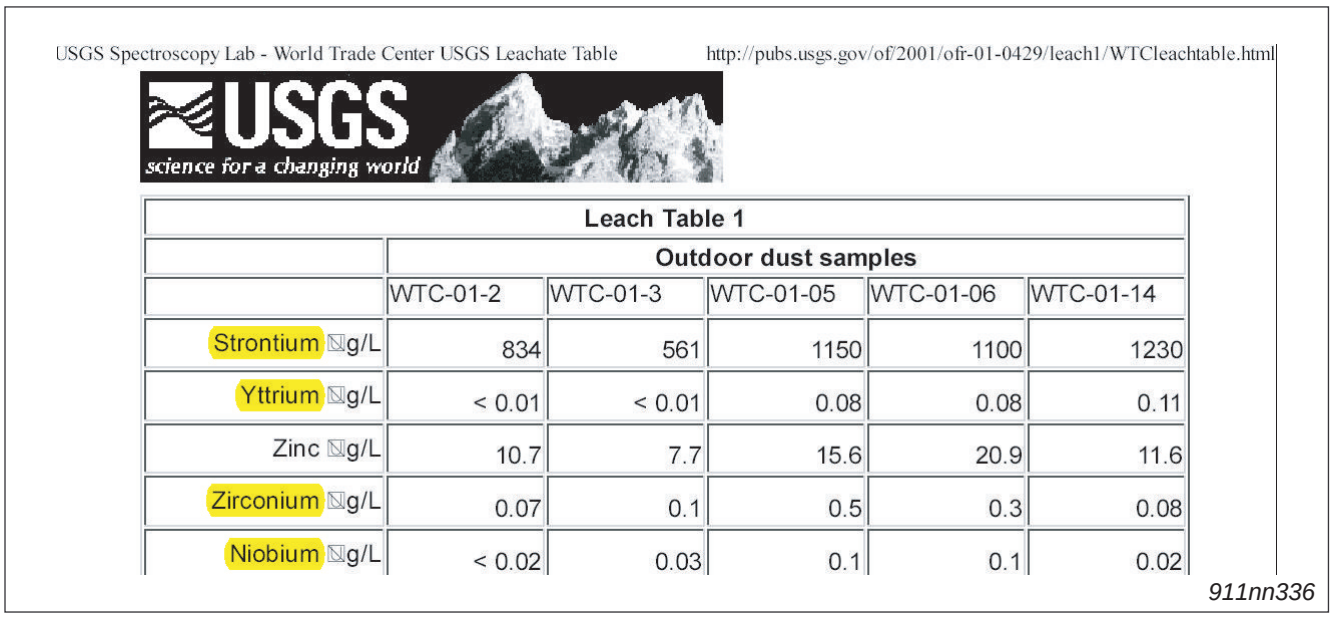
Leach Table 1					
	Outdoor dust samples				
	WTC-01-2	WTC-01-3	WTC-01-05	WTC-01-06	WTC-01-14
Barium µg/L	36.5	28.4	38.3	36	45.1
Lanthanum µg/L	< 0.01	0.01	< 0.01	0.01	< 0.01
Cadmium µg/L	0.44	0.26	1.08	0.82	0.37
Cerium µg/L	< 0.01	0.03	0.02	0.02	0.01
Cesium µg/L	0.08	0.05	0.04	0.04	0.06

911nn334

Fig. 16-3 Source: http://pubs.usgs.gov/of/2001/ofr-01-0429/leach1/WTCleachtable.html

Analysis 2: official results; search terms: "Yttrium", "Zirconium", "Niobium"

The characteristic "finger print" for Strontium exists.



Leach Table 1					
	Outdoor dust samples				
	WTC-01-2	WTC-01-3	WTC-01-05	WTC-01-06	WTC-01-14
Strontium µg/L	834	561	1150	1100	1230
Yttrium µg/L	< 0.01	< 0.01	0.08	0.08	0.11
Zinc µg/L	10.7	7.7	15.6	20.9	11.6
Zirconium µg/L	0.07	0.1	0.5	0.3	0.08
Niobium µg/L	< 0.02	0.03	0.1	0.1	0.02

911nn336

Fig. 16-4 Source: http://pubs.usgs.gov/of/2001/ofr-01-0429/leach1/WTCleachtable.html

Comparison / interpretation

The dust analysis proves a nuclear fission process as primary energy source with a subsequent radioactive disintegration of the elements ‘barium’ and ‘strontium’.

The suggested model gives a plausible explanation for the primary energy source of the towers’ destruction process (nuclear fission of uranium).

17 Masked radioactive radiation

Observation

A direct and severe radioactive contamination of the WTC surroundings is not documented.

At first sight it seems to be impossible that the surrounding area was exposed to neutron radiation.

Reasons:

- Under the influence of neutron radiation, carbon (being the key component of all organic life) quickly gets radioactive itself.

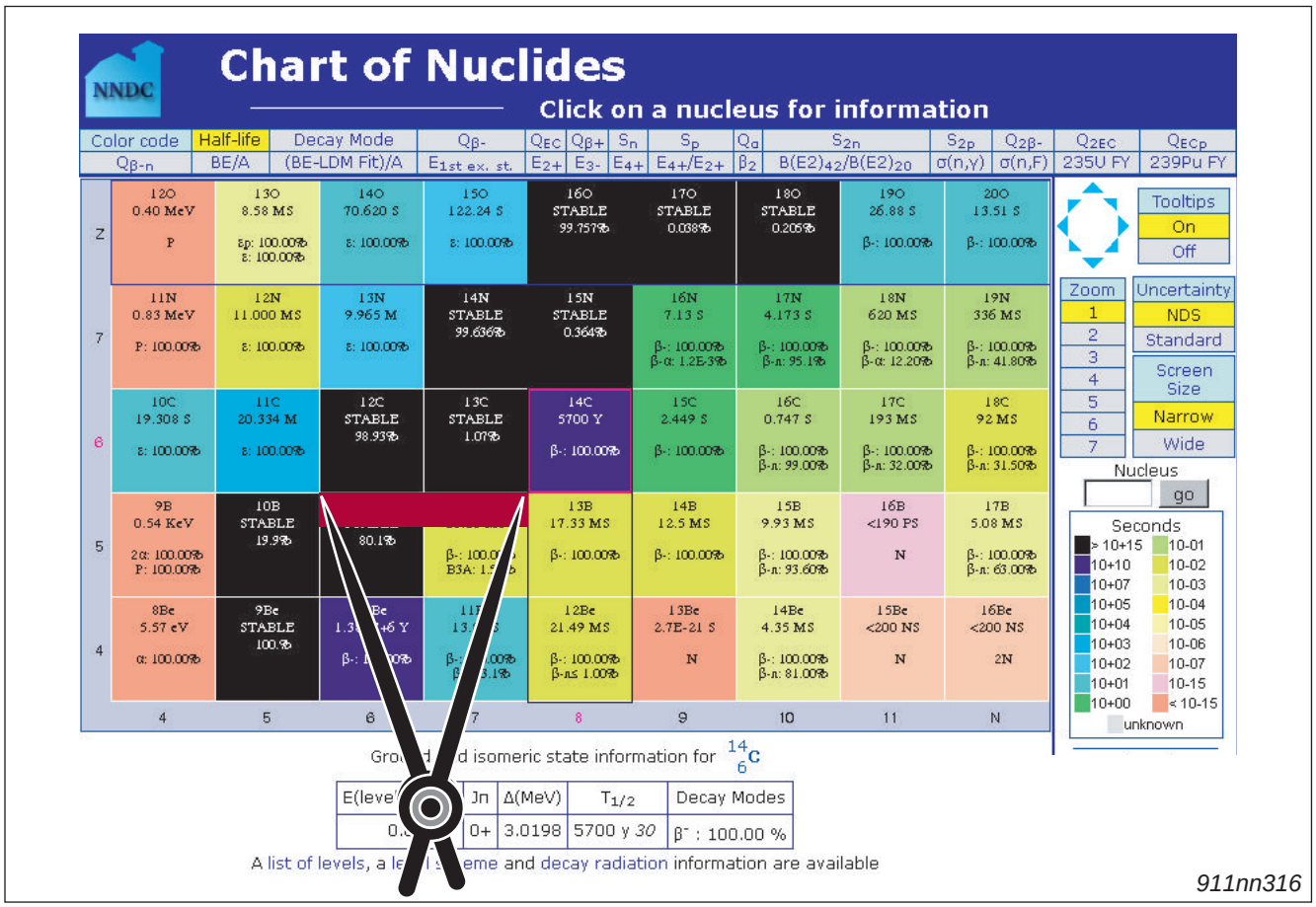


Fig. 17-1 Source: http://www.nndc.bnl.gov/chart/reCenter.jsp?z=6&n=8

The element ^{12}C can only absorb 1 neutron, the second neutron already makes carbon radioactive.

Model approach

The steel inside the towers evaporized abruptly due to the absorption or scattering of fast neutrons (➔ Page 13-1, Chapter 13).

A large part of the neutron radiation energy is absorbed by the atomic nuclei of the iron.

A large part of the gamma radiation energy is absorbed by the iron vapor.

The steel itself does not get radioactive, stable isotopes are formed.

Absorbing capacity of neutrons by iron atoms

- ^{54}Fe does not get radioactive until it has absorbed 5 neutrons

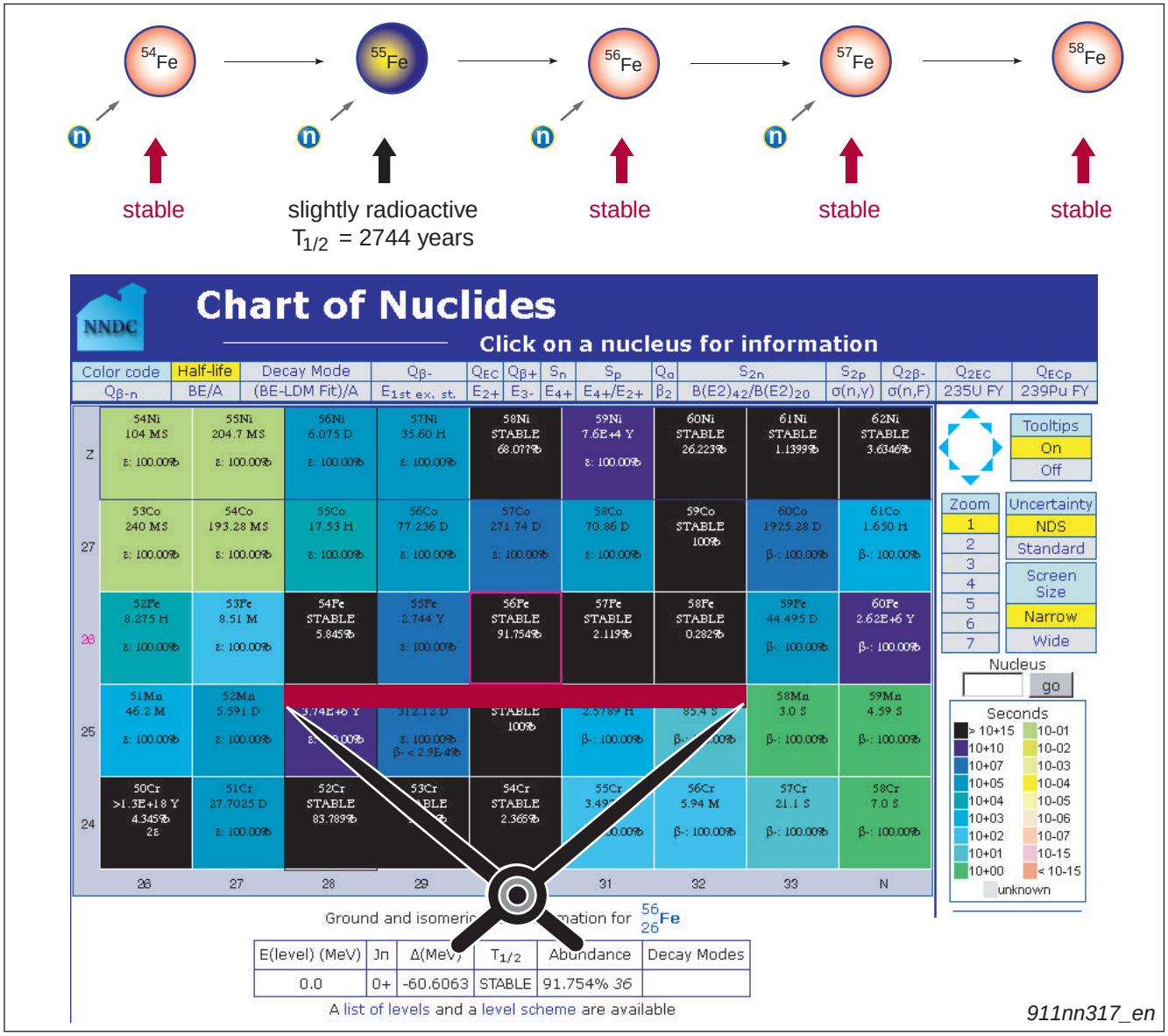


Fig. 17-2 Source: http://www.nndc.bnl.gov/chart/reCenter.jsp?z=26&n=30

Comparison / interpretation

Neutron flux: A nuclear fission process with strong neutron flux can thus be realized in buildings made of steel without severely contaminating the environment.

Residual debris and steel remains (for sampling in the lab) are not radioactive as the formed isotopes remain stable after having absorbed neutrons.

Ionizing radiation: The underground explosion resulted in an adequate encapsulation of the radioactive center (α, β, γ-radiation).

The suggested model gives a plausible explanation for the absence of high [fatal] radioactivity. It is also assumed that all reports discussing elevated radioactivity and cancer are subject to strict censorship.

Already more than 72,000 people "suffer from illness related to the 9/11attacks".

Source: http://edition.presstv.ir/detail.fa/359423.html

Source: http://www.renew911health.org/

18 Scintillation

Observation

Reporter's cameras which were directly engulfed in the dustcloud started registering white dots and flashes – as well as green, violet, blue and red lines.

Fig. 18-1 Source South Tower Dust Cloud (FOX News): https://www.youtube.com/watch?v=uGaiSrxhRhU

Logical course of events

- fleeing cameramen, shortly before being engulfed in the dust
- first contact with dust cloud, immediate start of white dots appearing
- blue, red and green scintillation phenomena
- overload and short-circuiting

Model approach

Scintillation is a flash of light produced in a transparent material by the passage of a particle.

During a nuclear explosion this can be an electron, an alpha particle, an ion, or a high-energy photon. The degree of measurable scintillation is based on the distance from the blast.

CCD Cameras [Charge-coupled device] will detect scintillation but only at high levels.

Brightness and contrast added

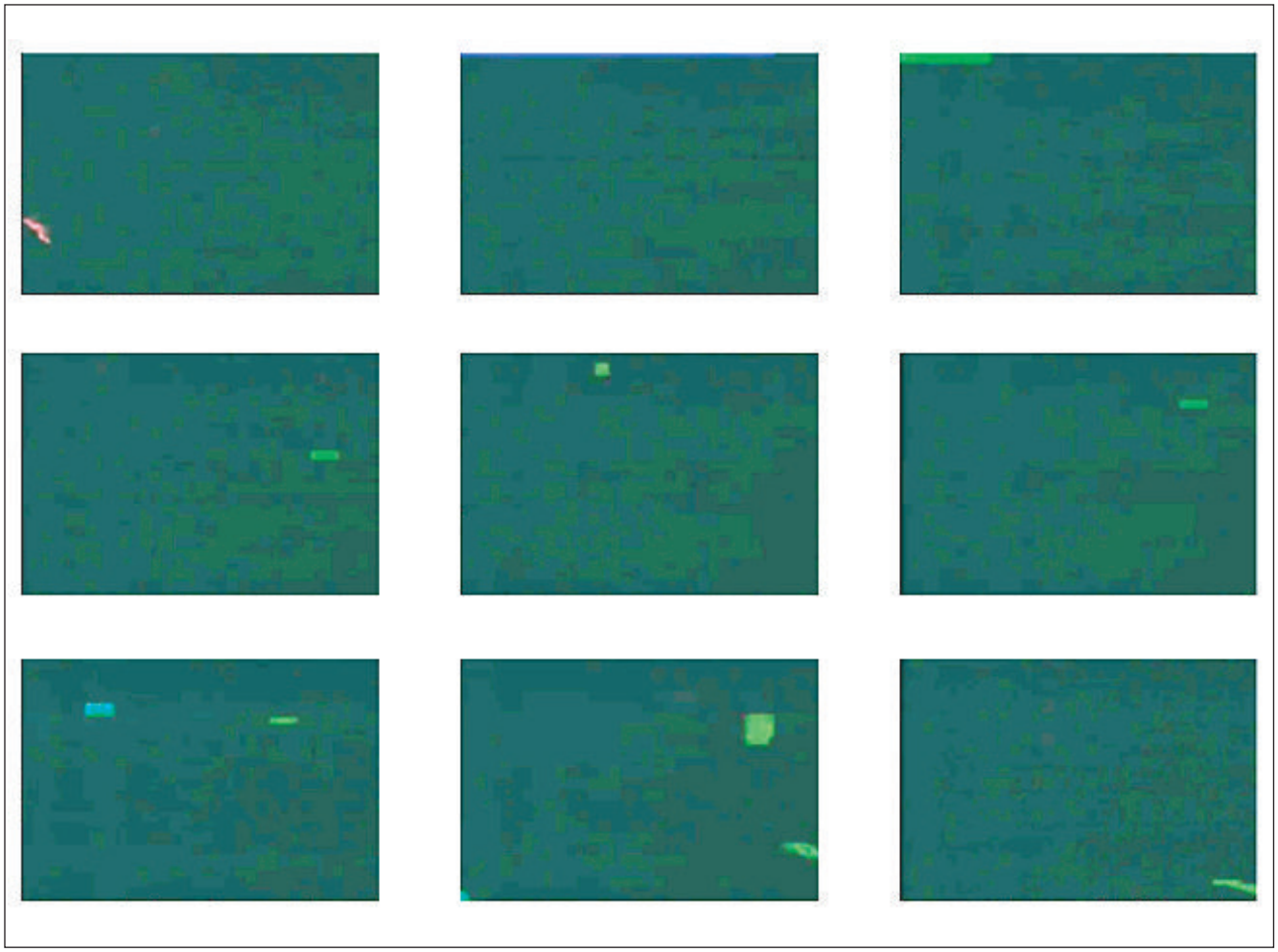


Fig. 18-2 Source @ 18:35 Interaction of a camera with radioactive radiation on 9/11: https://www.youtube.com/watch?v=Pp2SC_aduTA

Comparison / interpretation

The farther you get away from the blast the less neutron exposure you get.

On 9/11 most of the CCD cameras were too far away to be sensitive enough to show scintillation properly.

Radioactive decay of the confirmed Uranium fission process will emit short-range beta radiation , thus only cameras directly inside the cloud are able to detect this radiation.

19 Masked electromagnetic pulse

Observation

Before and after the destruction of the twin towers, some phenomena suggesting an electromagnetic pulse (EMP) could be observed, in particular:

- Lighting effects in buildings
- Inflammation of combustible metal-coated objects:

  the toasted cars at the WTC are evidence of directional inflammation
- flash burns of the skin, the skin comes off in shreds afterwards

  [observed in particular at the lvictims of Hiroshima / Nagasaki in 1945]

Source: http://beforeitsnews.com/9-11-and-ground-zero/2013/05/update-witnesses-saw-people-vaporized-on-911-2439810.html

Patricia Ondrovic

> "I saw a series of flashes around the ceiling of the lobby [of WTC6] all going off one-by-one like the X-mass lights that chase in pattern."

Source: http://anonymousphysicist.com/patricia-ondrovic-emt-and-the-truth-of-the-nuclear-destruction-of-the-wtc-a-witness-to-electromagnetic-pulses

Robert Ruiz ('9/11 responder, Paramedic')

> "I was trapped there. Like things weren't bad enough already, the car that's parked right on that corner catches on fire. I don't mean a little fire, the entire thing.
>
> Don't ask me how. The entire car caught on fire. You would think maybe just a motor part or just the engine part. But this entire car just goes up in fire. "

Source @12:27 AM: https://www.youtube.com/watch?v=b_LlJzR2oYI

William Rodriguez ('Maintenance worker at the World Trade Center')

> "And a person comes running into the office saying "an explosion, explosion, explosion" and [...] his skin was pulled from his arms and [...] and it was hanging over his arms, hanging and hanging."

Fig. 19-1 Source: http://www.veteranstoday.com/2013/05/01/mystery-solved-the-wtc-was-nuked-on-911/

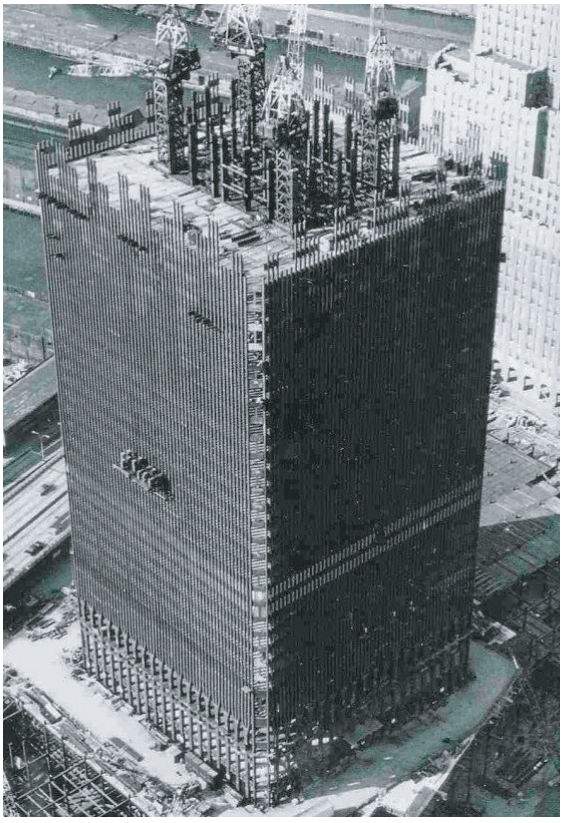
Model approach

The twin towers featured a special type of construction:

- a steel core on the inside surrounded by steel girder structures on the outside

This type of construction increases the stability of a building and at the same time converts it into a Faraday cage.

Strong radiant fluxes are trapped inside the building and may only escape at large breaking points or openings (ground level / lobby).



Faraday cage:
to collect energy / to shield from energetic impulses

911nn361_en

Fig. 19-2 Source 1: http://www.boweryboyshistory.com/wp-content/uploads/2008/09/site1099.jpg
Source 2 (Deutsches Museum Munich): http://www.fotocommunity.de/pc/pc/display/35889571

Comparison / interpretation

An electromagnetic pulse with a broadband electromagnetic radiation is generated by, amongst other things, a nuclear explosion (due to the subsequent interaction of gamma radiation and air).

The suggested model gives a plausible explanation why this radiation pulse inside the buildings can be realized without extinguishing all life in the surroundings.

The residual energies escaping from the Faraday cage were still high enough to inflame cars and to destroy electronic devices near the WTC.

In addition the radiation energy is caught in the Faraday cage [the office tower] which contributes to its destruction.

20 Soundless shock wave in the rockbed

Observation

At the time of the towers' destruction, seismic shock waves that are characteristic for underground explosions were recorded.

- at the same time, the procedure guarantees a virtually soundless destruction process as the sound waves of the explosion are absorbed within the rockbed

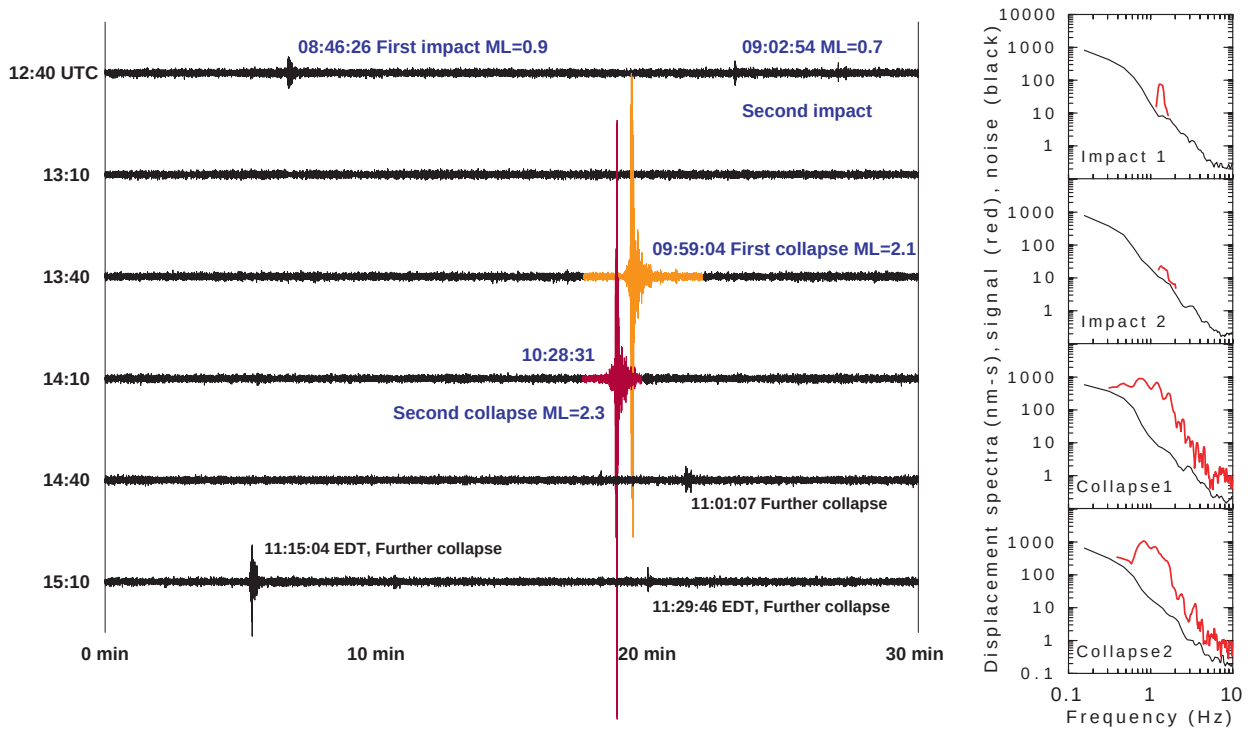


Fig. 20-1 Source: http://www.ldeo.columbia.edu/LCSN/Eq/20010911_WTC/WTC_LDEO_KIM.pdf

Model approach

The third of Newton's laws of motion states that every force exerted on an object causes an equal force in the opposite direction .

$$\vec{F}_{A \to B} = -\vec{F}_{B \to A}$$

911nn321

Fig. 20-2 Source: http://en.wikipedia.org/wiki/Newton%27s_laws_of_motion

LOCAL VIDEO: **Gas eruptions from the rockbed**

www.911history.de/35.mp4

Source (09:43 – 09:54): https://www.youtube.com/watch?v=k_64RigP1Fk

Example 1

If a drip of blue ink drops into a cup of milk, the drip transmits a pulse to the surrounding liquid, i.e. the milk.

- the milk responds with a needle-shaped shockwave as reaction

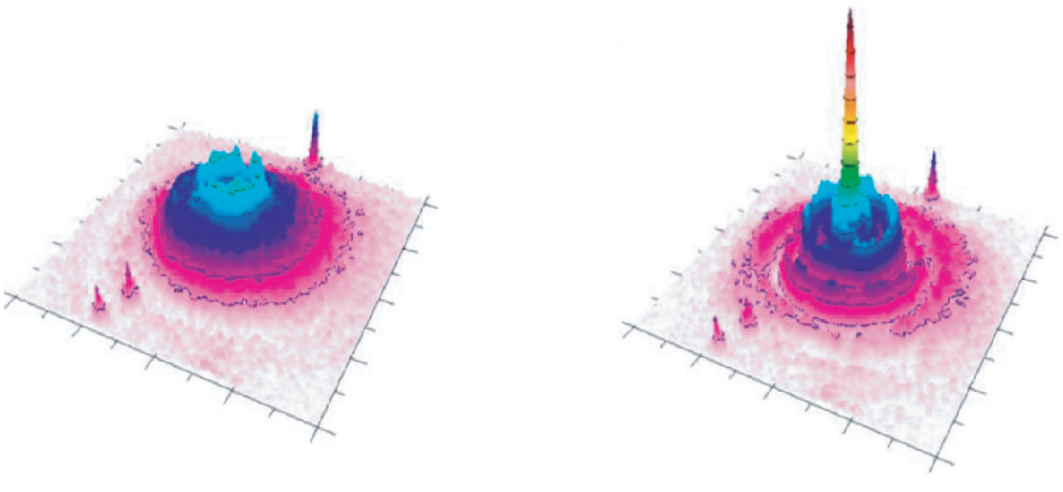
911nn052

Fig. 20-3 Source: http://en.wikipedia.org/wiki/Drop_%28liquid%29#mediaviewer/File:Blue_Droplet.jpg

Example 2

If an explosion takes place underground, the shock wave transmits a pulse to the rockbed

- the rock earth responds with a shockwave as reaction that is needle-shaped in the case of ground-level explosions



911nn350

Fig. 20-4 Source: http://arxiv.org/ftp/arxiv/papers/1309/1309.3083.pdf

Comparison / interpretation

The suggested model gives a plausible explanation on the connection between the seismic shock waves and a fountain-like material ejection during the WTC disintegration.

21 Gas eruptions from the rockbed

Observation 1

The disintegration of the South Tower was accompanied by gas eruptions from the ground.

Fig. 21-1 Source @9:53 AM: https://www.youtube.com/watch?v=k_64RigP1Fk

Observation 2

These gas eruptions took place shortly before the dust cloud reached the floor.

Fig. 21-2 Source: http://911research.com/wtc/evidence/photos/wtc2biggartdust1.html

Model approach

If an explosion takes place underground, the shockwave transfers a pulse into the rock earth, the pressure rises significantly until reaching the maximum.

- the rock earth correspondingly responds with a shock wave as opposite pulse

  This declining transfer of the pulse energy is a little slower than the absorption of the explosion energy as the energy store (the rock earth) has a high absorption capacity

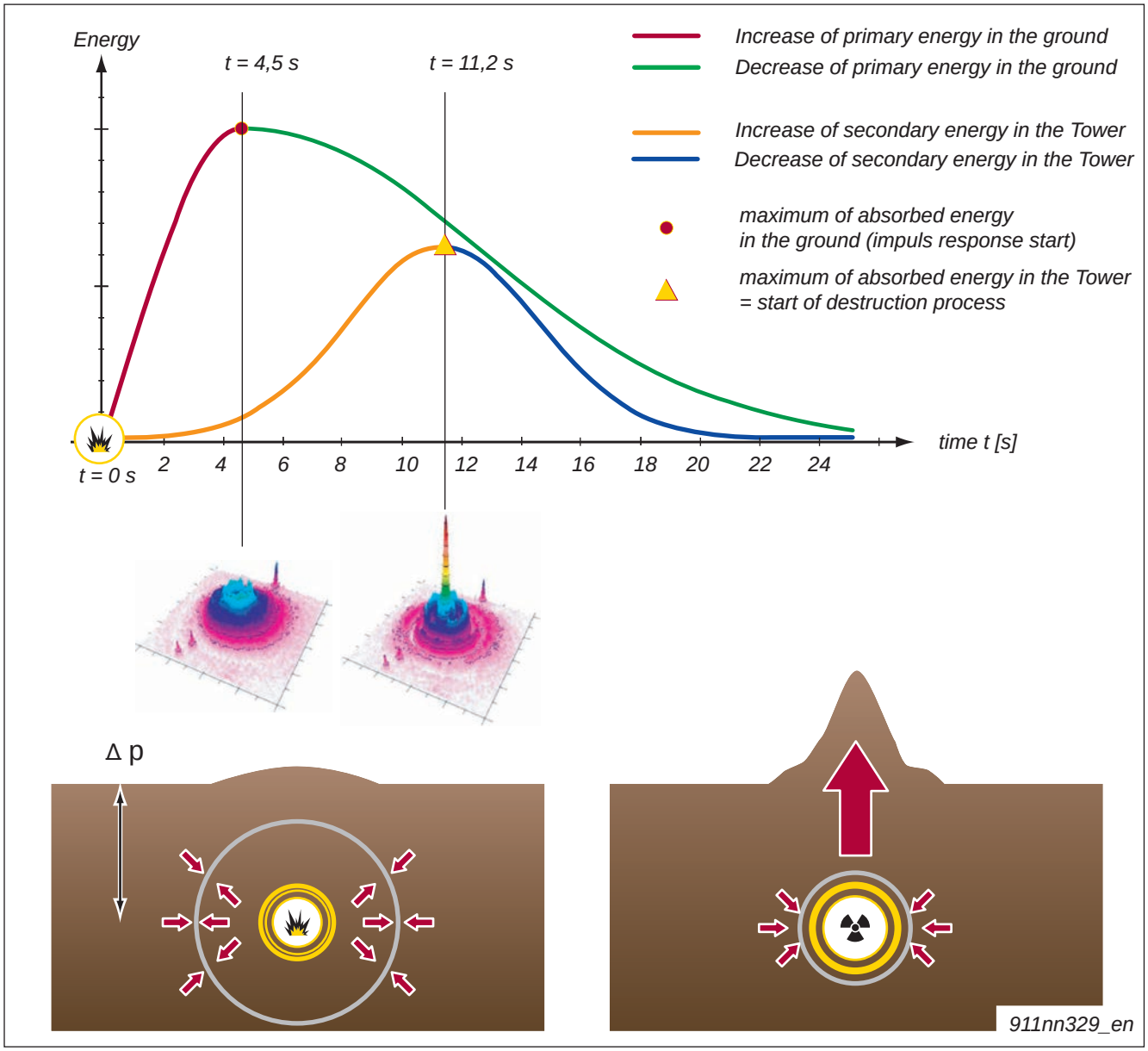


Fig. 21-3 Source: http://arxiv.org/ftp/arxiv/papers/1309/1309.3083.pdf

Comparison / interpretation

The North Tower shook for 10 seconds before disintegrating. This is exactly the time required for the pulse response of the ground to transfer the energy to the spire (absorption of secondary energy, orange curve).

The gas eruptions took place with a time delay of approx. 18 seconds to the explosion.

The suggested model gives a plausible explanation for the connection between the shaking of the North Tower and the gas eruptions from the rock earth.

22 Shockwave on the surface

Observation

The expansion of a typical destructive shockwave on the surface was not observed.

The development of a precursor as additional, second, very fast and destructive shockwave was not observed.

Extenuated, light overpressure waves that were channelized by the urban canyons developed instead.

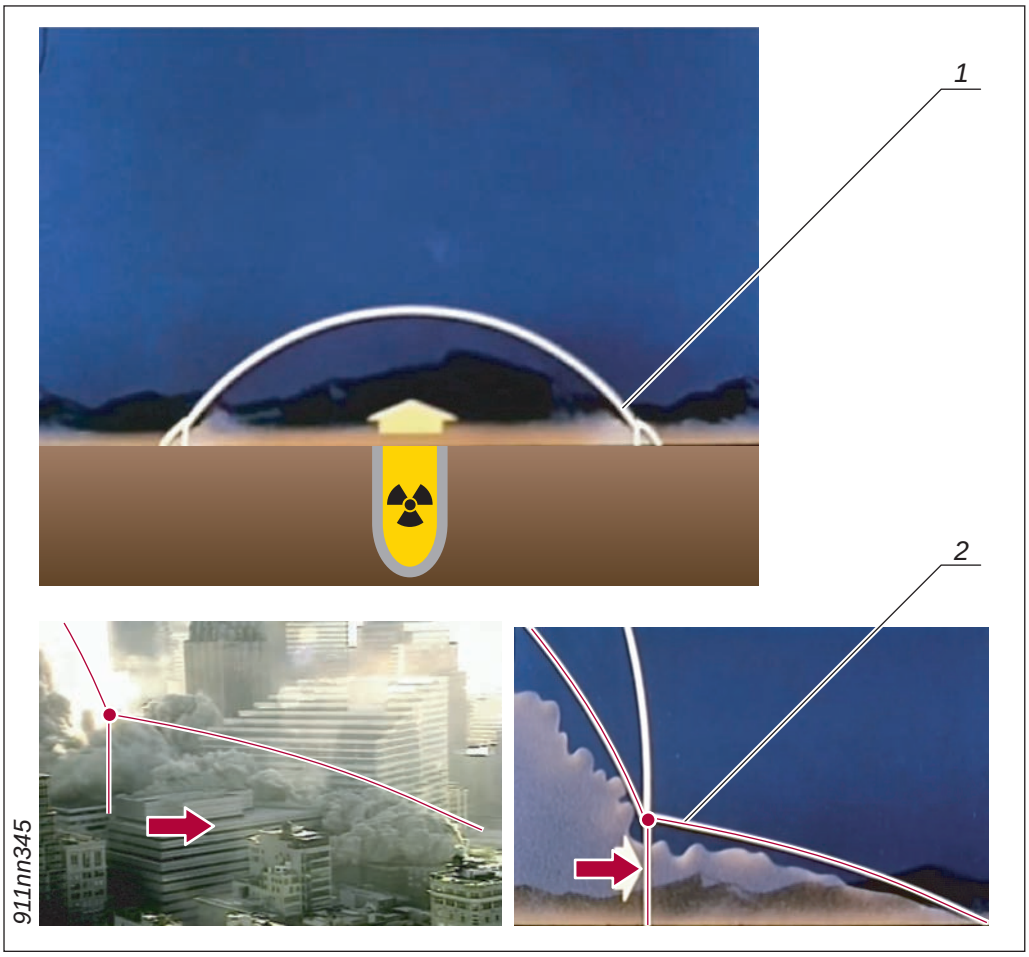


Fig. 22-1 Source 1 @05:44 (Precursor): http://www.youtube.com/watch?v=r9UwBOhyJSI
Source 2 @05:31 (WTC 7): https://www.youtube.com/watch?v=Ujps2oCA-nU

1 Reflected shock wave accelerated by uprising hot air

2 Precursor as overlap of two shock waves and proprietary wave front

Model approach

Thermal energy and pulse were compensated sufficiently by:

- the rockbed (absorption of primary energy)
- the building's structure (absorption of secondary energy)

It was not until after the absorption of the secondary energy that the buildings disintegrated and released excess pressure, residual radiation energy and heat to the surrounding area.

Comparison / interpretation

Instead of destructive shock waves, “merely” the formation of a pyroclastic (and actually hot) dust cloud was observed.

The suggested model gives a plausible explanation on the absence of the shock wave.

Fig. 22-2 Source: http://911research.com/wtc/evidence/photos/wtc1spire.html

LOCAL VIDEO: **Pyroclastic flow**

www.911history.de/c7.mp4

Source (02:18 – 2: 29): https://www.youtube.com/watch?v=cKtHOVyb4_8

Source (00:20 – 0.26): https://www.youtube.com/watch?v=uGaiSrxhRhU

Source (11:56 – 12:18): https://www.youtube.com/watch?v=JnLcUxV1dPo

23 Pyroclastic hot dust cloud

Observation

While being destroyed, both twin towers disintegrated to [iron and concrete] dust.

This compact dust cloud initially flowed through the urban canyons like a hot liquid.

Fig. 23-1 Source: http://911research.wtc7.net/wtc/evidence/photos/wtc1exp19.html

Model approach

The wavefront of the dust cloud consisting of steel droplets and pulverized concrete, can be described accurately enough as pyroclastic flow.

This hot dispersion of solids and gas moves very quickly away from the energetic center (due to its own weight and/or pressure flows from the energy vortex).

Fig. 23-2 Source: http://911research.wtc7.net/wtc/evidence/photos/wtcdust3.html

Comparison / interpretation

According to the accounts, the dust cloud was scorching hot and people got burned. Eyewitness accounts support this model.

THE 9/11 TORONTO REPORT, page 230; New York's News; David Handschuh

> "A wave – a hot, solid, black wave of heat threw me down the block."

THE 9/11 TORONTO REPORT, page 231; Paramedic; Manuel Delgado

> "... and then we were engulfed in the smoke, which was horrendous. One thing I remember, it was hot. The smoke was hot and that scared me."

DOWNLOAD extract from the source: http://www.911memorial4kids.org/pdfs/Toronto_Report_p_230.pdf

24 Superhot zones of persistent temperature

Observation

In October 2001, infrared imaging still showed high temperatures caused by red-hot steel in the building's foundations.

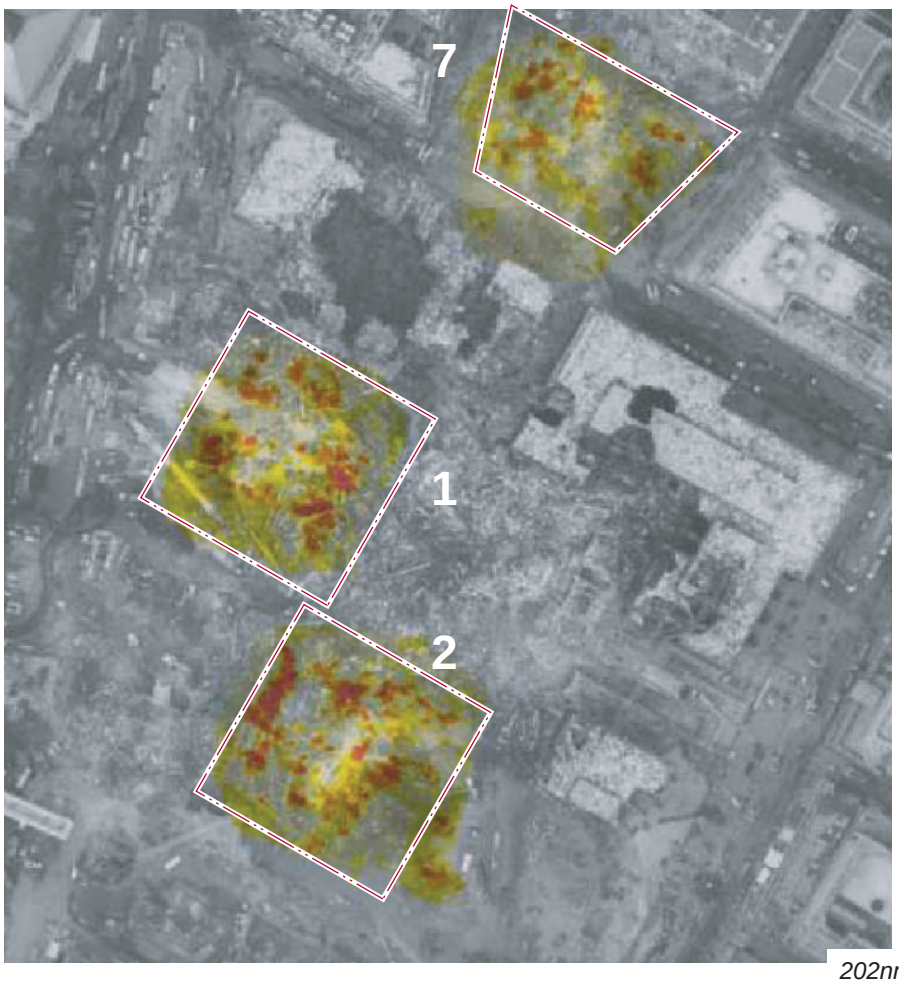


Fig. 24-1 Source: http://911encyclopedia.com/wiki/index.php/World_Trade_Center_Hot_Spots

Model approach

Two possible scenarios come into consideration:

- Formation of the melting pot with molten steel / molten rock and persistent high temperatures due to a simple high-energy nuclear weapon explosion
- Formation of the melting pot due to a "nuclear dirty", slow process with ongoing nuclear fission in the rock earth (principle of an overcritical reactor, further information: ➔ Page 47-1, Chapter 47)

The thermal energy stored in the debris under Ground Zero not only was extremely high but also stable over a time period of several weeks.

This is documented by numerous NASA infrared pictures.

Fig. 24-2 Source: http://911encyclopedia.com/wiki/index.php/World_Trade_Center_Hot_Spots

Comparison / interpretation

Red hot steel debris and puddles of molten steel were found again and again during the Ground Zero cleanup.

Fig. 24-3 Source: http://www1.ae911truth.org/en/news-section/41-articles/347

The suggested model gives a plausible explanation of the superhot zones with persistent temperatures (high-energy nuclear weapon explosion and thermal isolation of the residual energy by the rock earth).

25 Formation of a melting pot (North Tower)

Observation

A melting pot – i.e. a bed made of formerly liquefied rock – was found under each of the twin towers.

(Rudy Giuliani, mayor of New York, in a speech in 2002)

English

> "They were standing on top of a cauldron. They were standing on top of fires 2,000 degrees that raged for a hundred days."

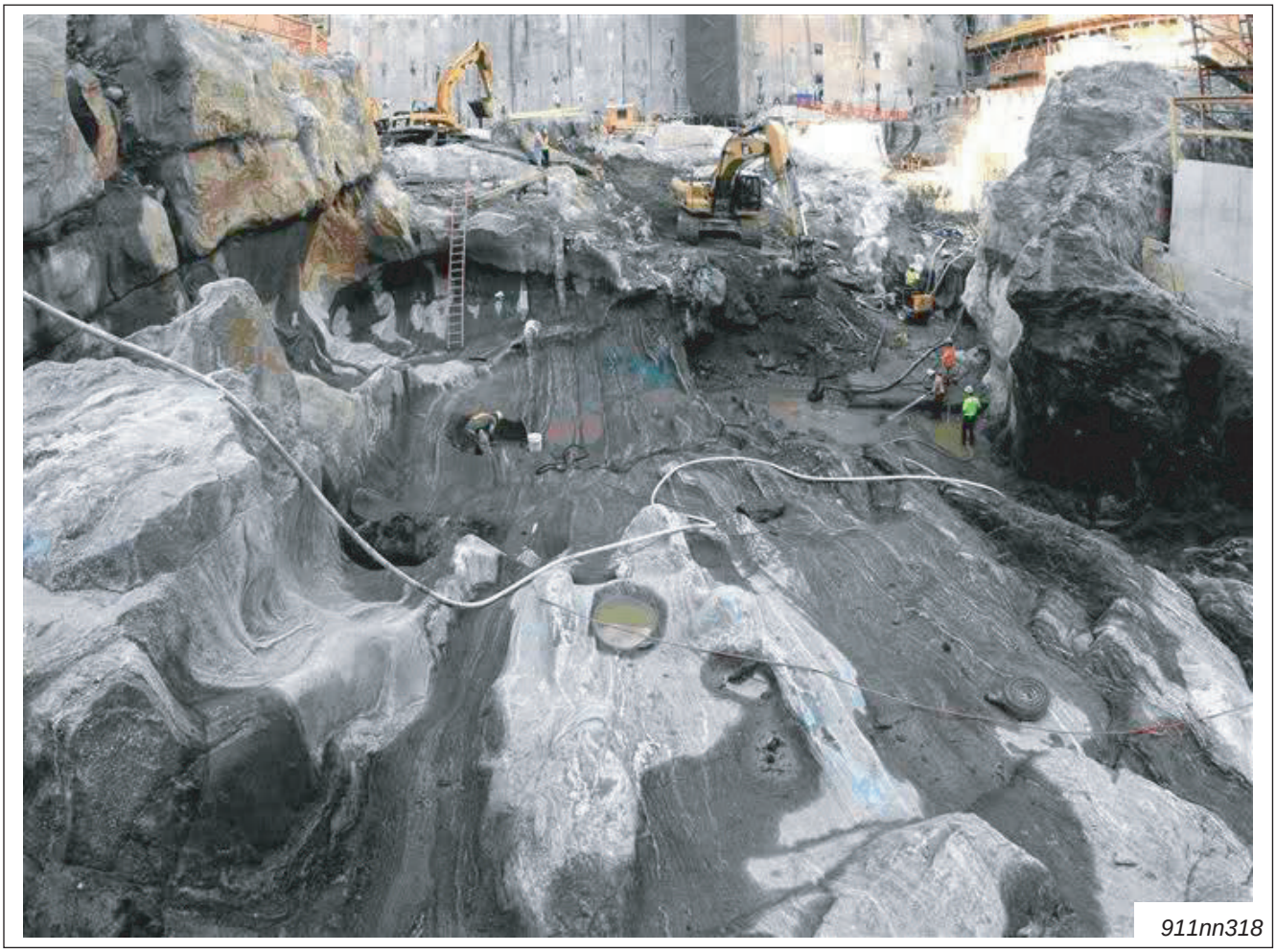


Fig. 25-1 Source: http://themillenniumreport.com/2014/09/911-truth-goes-nuclear-massive-download-in-progress/

Model approach

Two possible scenarios must be considered:

- Melting of the surface followed by a nuclear explosion [low energy]
  for near-surface processes (principle of an overcritical reactor)
- shock-like compacting and melting of the underground [high energy]
  for detonations taking place deep down underground, massive nuclear weapon explosion

Comparison / interpretation

On the basis of test results documenting the changes the ground undergoes after the detonation of nuclear weapons, this models assumes a shock-like process.

The suggested model gives a plausible explanation of the formation of a melting pot.

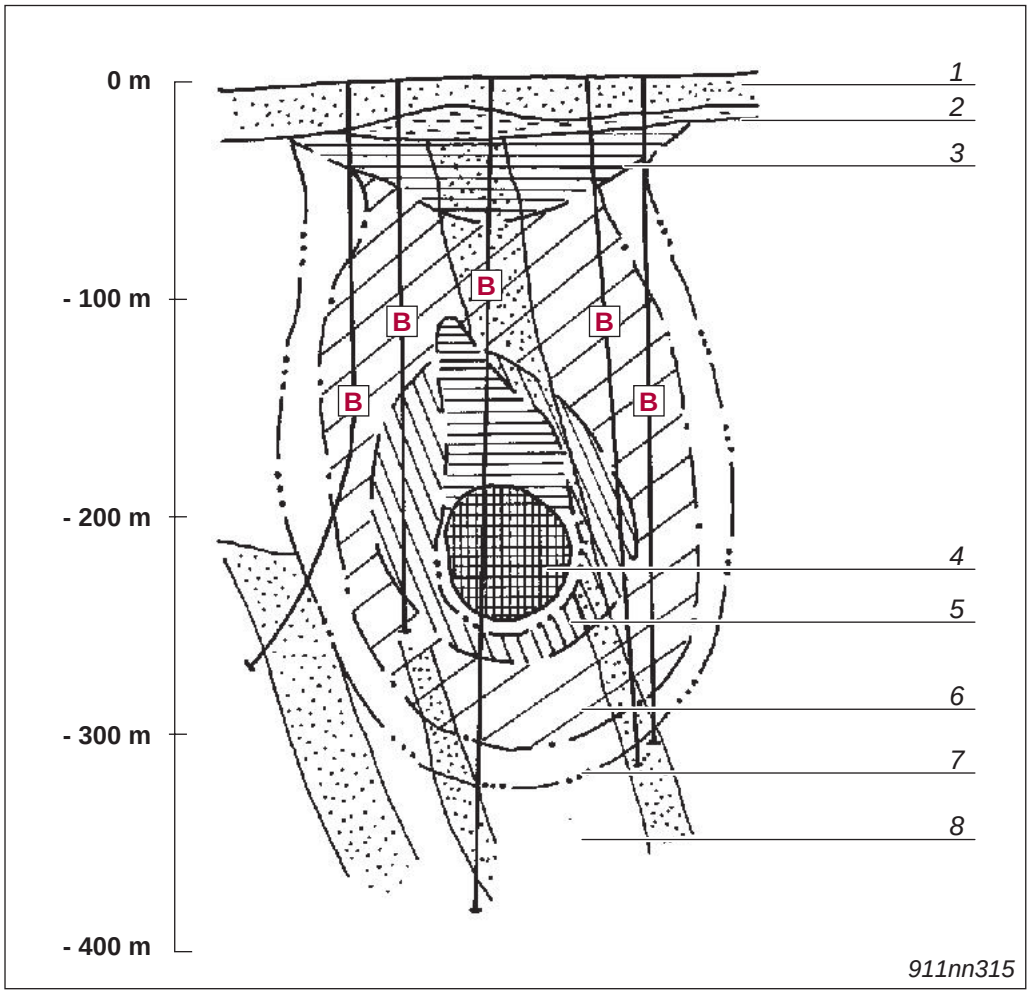


Fig. 25-2 Source: http://geology.er.usgs.gov/eespteam/pdf/USGSOFR01312.pdf

1 Clay
2 Gravel sediments
3 Spall zone
4 Cavity
5 Zone of rock contortion
6 Damaged zone
7 High-density fissure zone
8 Block fractured zone

Study at Balapan test site (Russia):
Structure of the central zones after the explosion in borehole 102.

The vertical lines labeled “B” are the post-test boreholes for sampling.

26 Formation of a melting pot (South Tower)

Observation

A smaller but very distinct melting pot – the bed of formerly liquefied rock – was found under the South Tower.

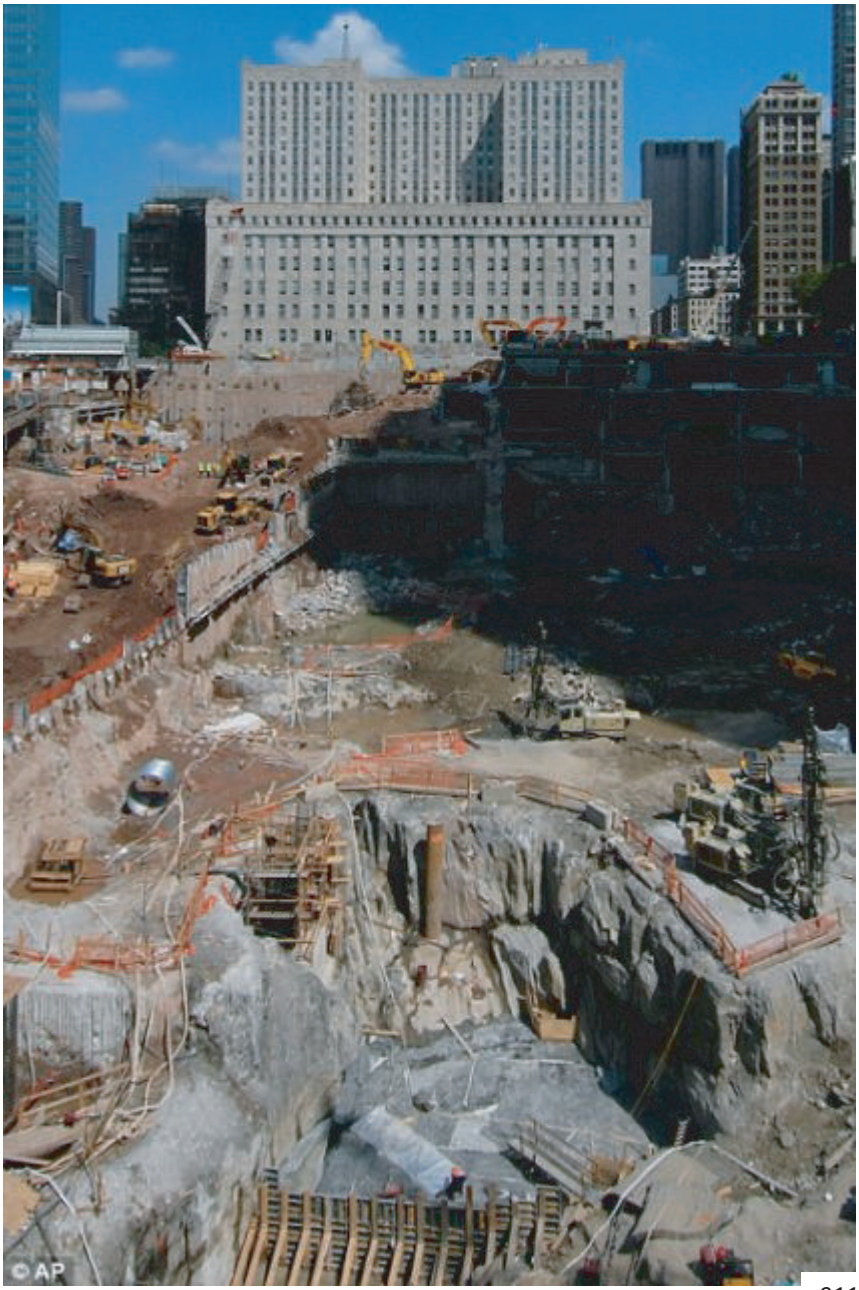


Fig. 26-1 Source: http://donaldfox.wordpress.com/tag/underground-nukes/

Model approach

The cavity developing during a nuclear weapon explosion is so close to the surface that a part of the explosion energy can escape upwards.

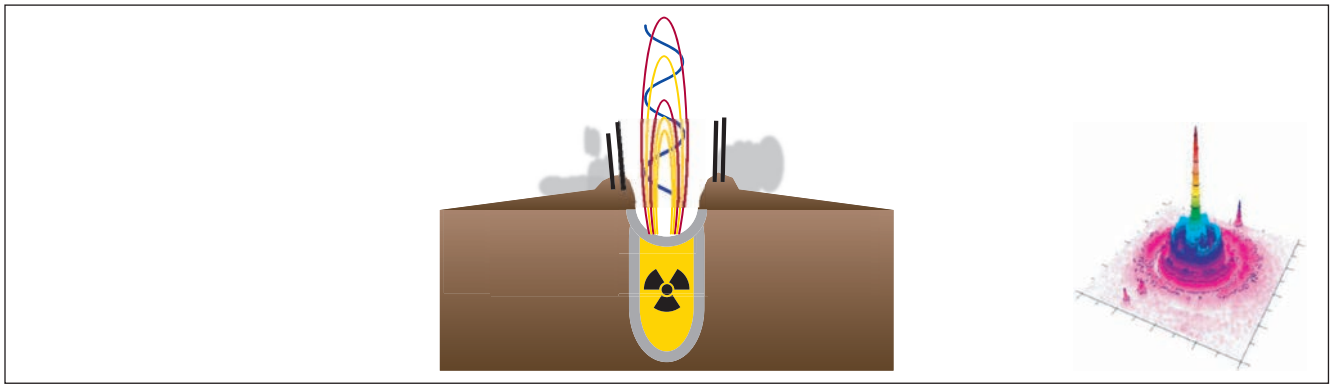


Fig. 26-2 Source (edited, original by Dimitri A. Khalezov): http://en.wikipedia.org/wiki/File:Nuclear-demolition-damages.jpg

Comparison / interpretation

The picture shows an open cavity just below the surface. The energy could thus be easily canalized upwards via elevator shafts up to the pressure compensation at a height of 330 m / 360 m.

The suggested model gives a plausible explanation on the formation of a melting pot.

Fig. 26-3 Source: http://donaldfox.wordpress.com/tag/underground-nukes/

27 Torrents of molten steel

Observation

Just before its destruction, molten steel was pouring out of the breaking points of the South Tower.

Little fountains of liquid metal, similar to discharges or little detonations were ejected from the facade.

Outpouring streams of molten steel

911nn322

Fig. 27-1 Source @12:52 AM: http://www.youtube.com/watch?v=LivXaOguXRA

Fountains of liquid metal pouring out (of the facade)

911nn308

Fig. 27-2 Source @12:06 AM: http://www.youtube.com/watch?v=LivXaOguXRA

LOCAL VIDEO: **liquid steel pouring out / shooting out**

www.911memorial4kids.org/videos/Outpouring_molten_steel_WTC2.mp4

www.911memorial4kids.org/videos/HighEnergy_Squibs_SLOW_MOTION.mp4

Source: http://www.youtube.com/watch?v=LivXaOguXRA

Model approach

Two possible scenarios must be considered:

- Steel melts due to neutron absorption – nuclear process
  scenario with overcritical reactor in the foundation of the building
- Reaction with a very reactive substance – chemical process

Due to the fact that a high concentration of the highly reactive substance thermite (with its capacity to melt steel) was found in the dust of the destroyed World Trade Center, it is assumed that the melting of the facade was a chemical process, not a nuclear one.

Picture showing the remains of red thermite flakes in the dust of the WTC

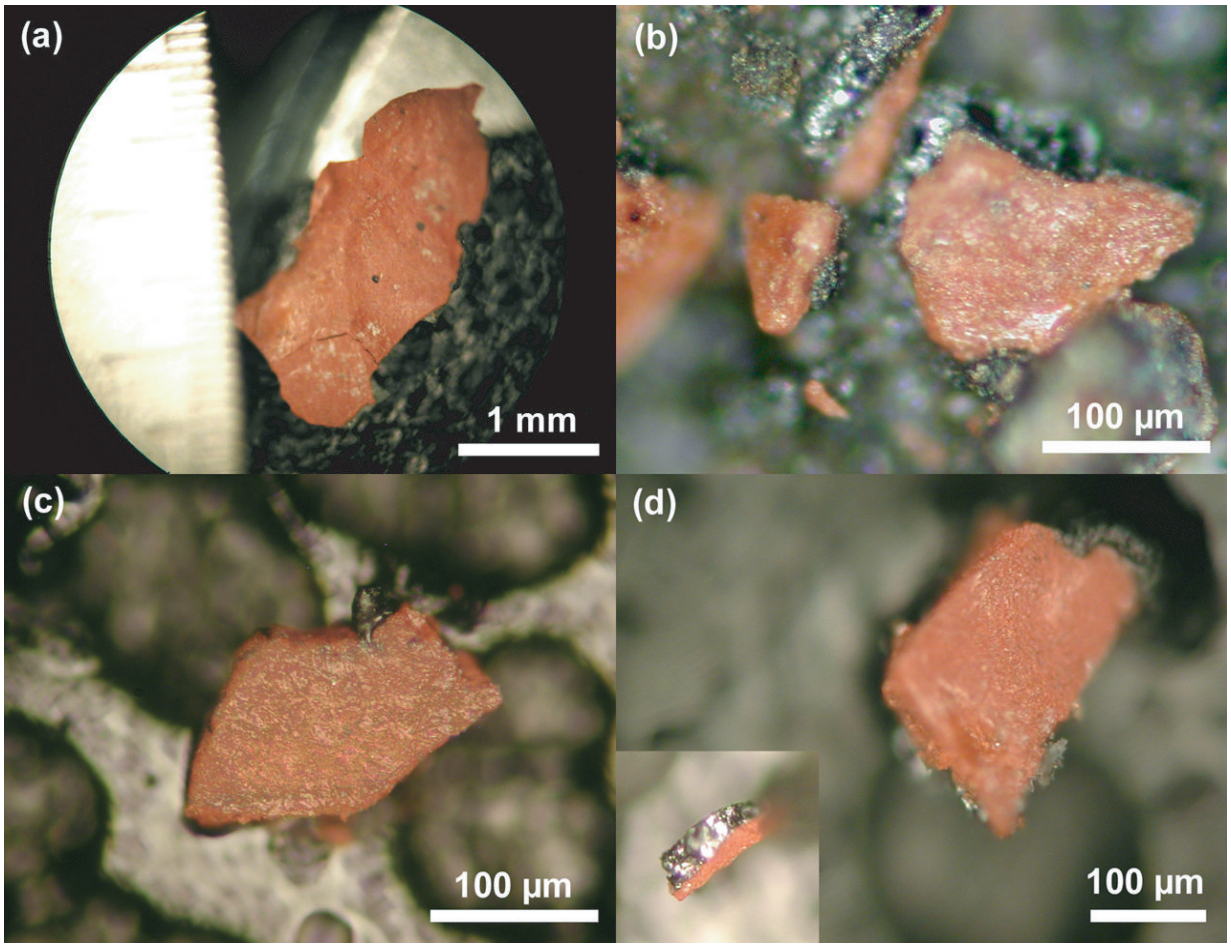


Fig. 27-3 Source: http://www.bollyn.com/public/Active_Thermite_at_WTC.pdf
DOWNLOAD *the PDF file: http://www.911memorial4kids.org/pdfs/Thermite.pdf*

For more information

Different scientists found evidence of thermite and explosive remains in the dust of the WTC.

Source: http://www.bollyn.com/public/Active_Thermite_at_WTC.pdf

28 Channelling of the elevator shafts

Observation

After the impact of the planes at a height of 350 m, the arriving first responders initially rushed into the towers' lobbies.

At this particular time explosions had already damaged the lobby severely. Dead and injured people were rescued.

First responders also mention other individual explosions within the elevator shafts shortly after that.

Fig. 28-1 Source @ 01:09 (explosion on the ground floor): https://www.youtube.com/watch?v=XvUIQZ7t7Ak

LOCAL VIDEO: **Destroyed lobby**

www.911memorial4kids.org/videos/Lobby_Explosions.mp4

Source 1 @ 0:43 – 01:20 [Signs of an explosion at WTC NT lobby]: https://www.youtube.com/watch?v=XvUIQZ7t7Ak

Source 2 [William Rodriguez's story]: https://www.youtube.com/watch?v=wIZtqKiidlo

Source 3 [Bob McIlvaine : 9/11 Family Member, @11:16]: https://www.youtube.com/watch?v=ujqTXhy05tw

Model approach

To channel the secondary energy from the rockbed up to the top of the building, two conditions must be fulfilled:

- the elevator shafts must be connected
- the building must be open at a height of 350 m

This is the only way to ensure that energy is transported from the bottom to the top and guarantee a pressure compensation at the predetermined breaking point at a height of 350 m.

The violent pressure compensation supports or rather triggers the formation of a destructive front moving from the top to the bottom .

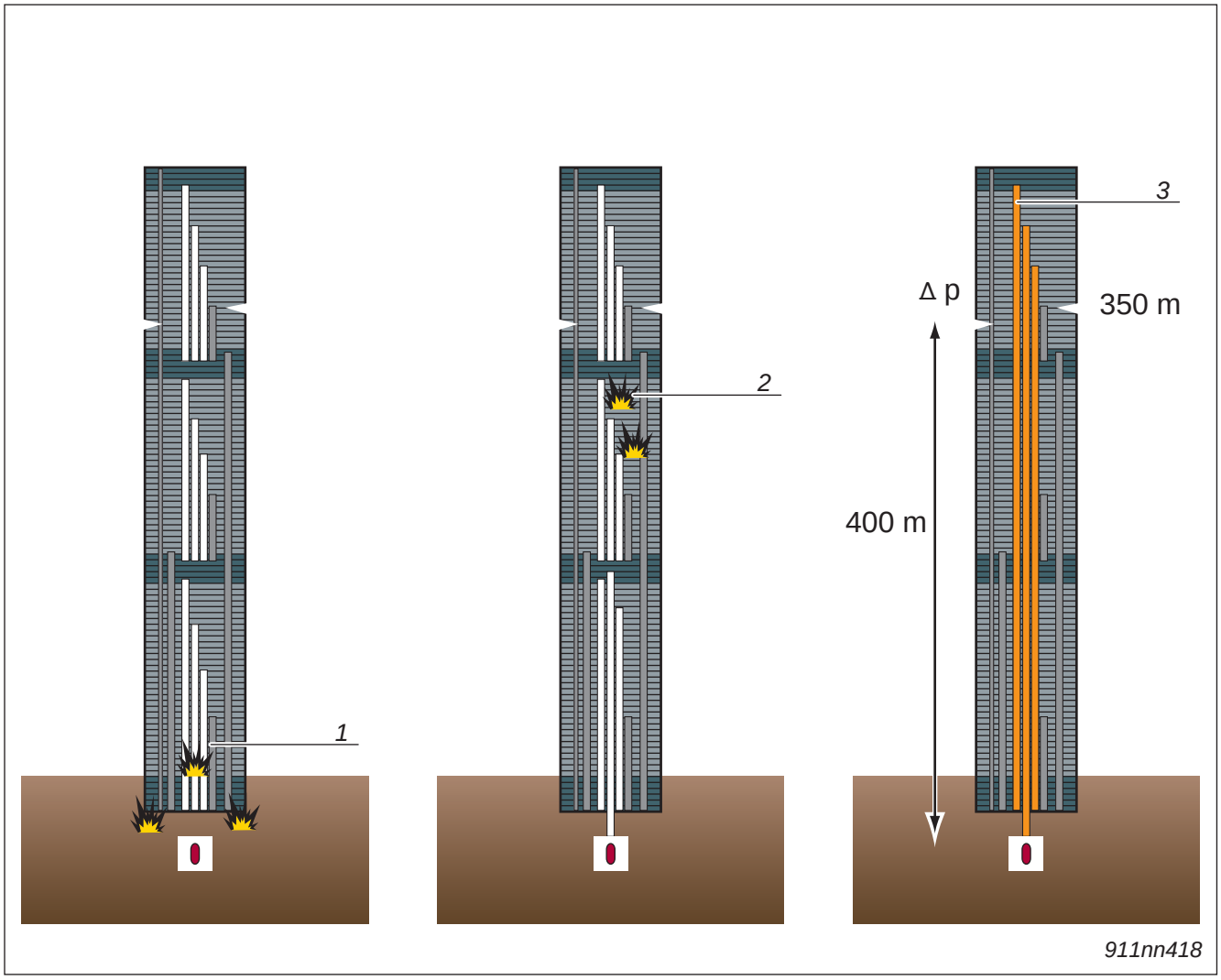


Fig. 28-2 Preparation of the elevator shafts, source: @01: 7:00 AM: https://www.youtube.com/watch?v=OQgVCj7q49o

1 Detonations in the lobby / parking level
2 Detonation of the mezzanines
3 Elevator shafts are now connected, connection to explosive charge exists

Comparison / interpretation

The model describes the necessity to channel the energy flows.

The assumptions in the model are supported by witnesses of the gradual destruction process (the building being opened by the plane, explosions in the lobby, melting structures, and finally the disintegration).

29 Steam explosions of the facade (North Tower)

Observation

During the disintegration, explosions were shooting out far below the line of destruction on both twin towers.

- the picture shows four steam explosions shooting out of the North Tower facade, two of them are just below the line of destruction (marked red)
- at the foundation of the building there is also a smoke cloud (marked yellow)

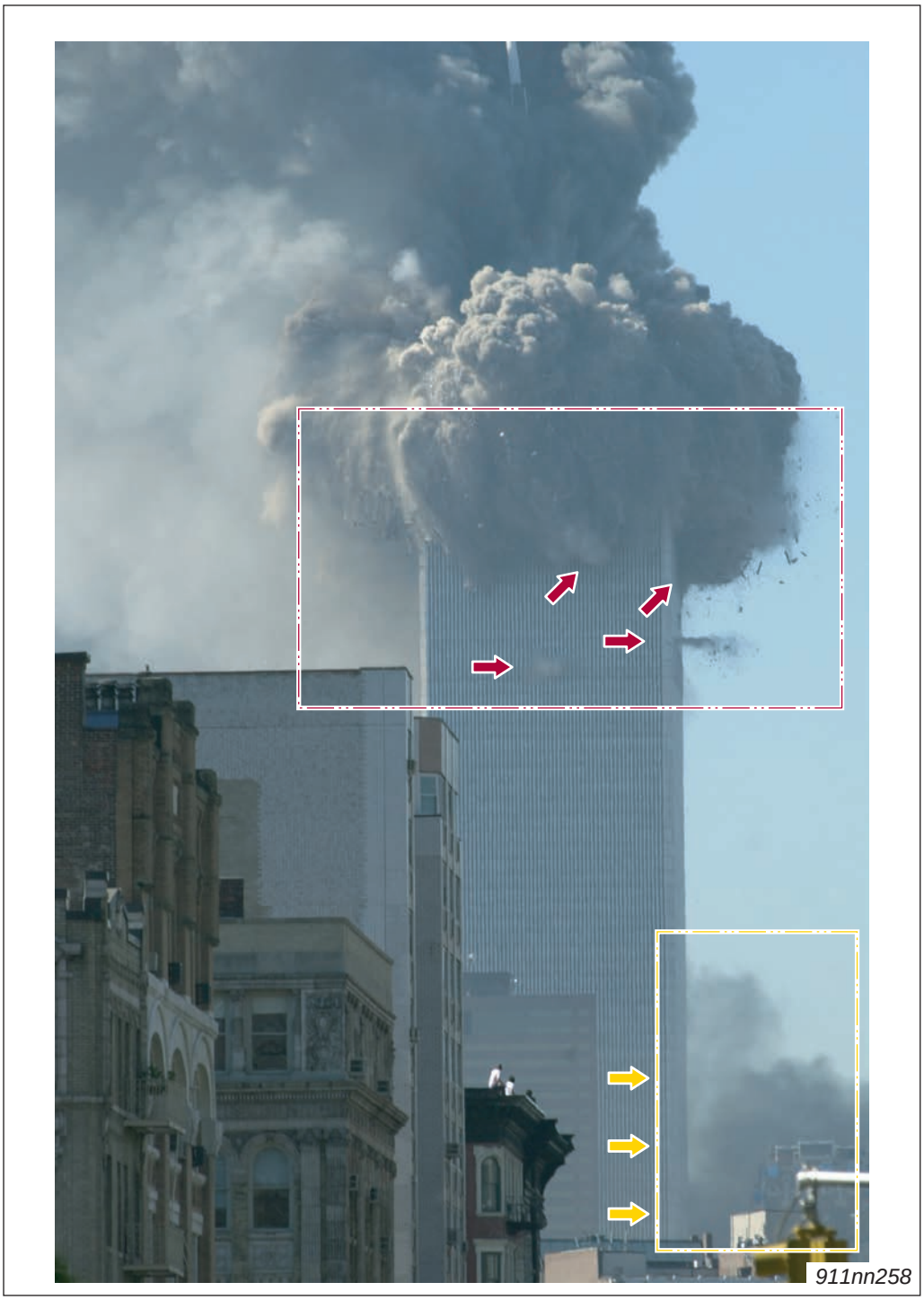


Fig. 29-1 Source: http://911research.wtc7.net/wtc/evidence/photos/wtc1exp21.html

Model approach

Steam explosions take place when water bound chemically in a solid [such as concrete] is all of a sudden overheated extremely.

In this case the water acts as microscopic explosive.

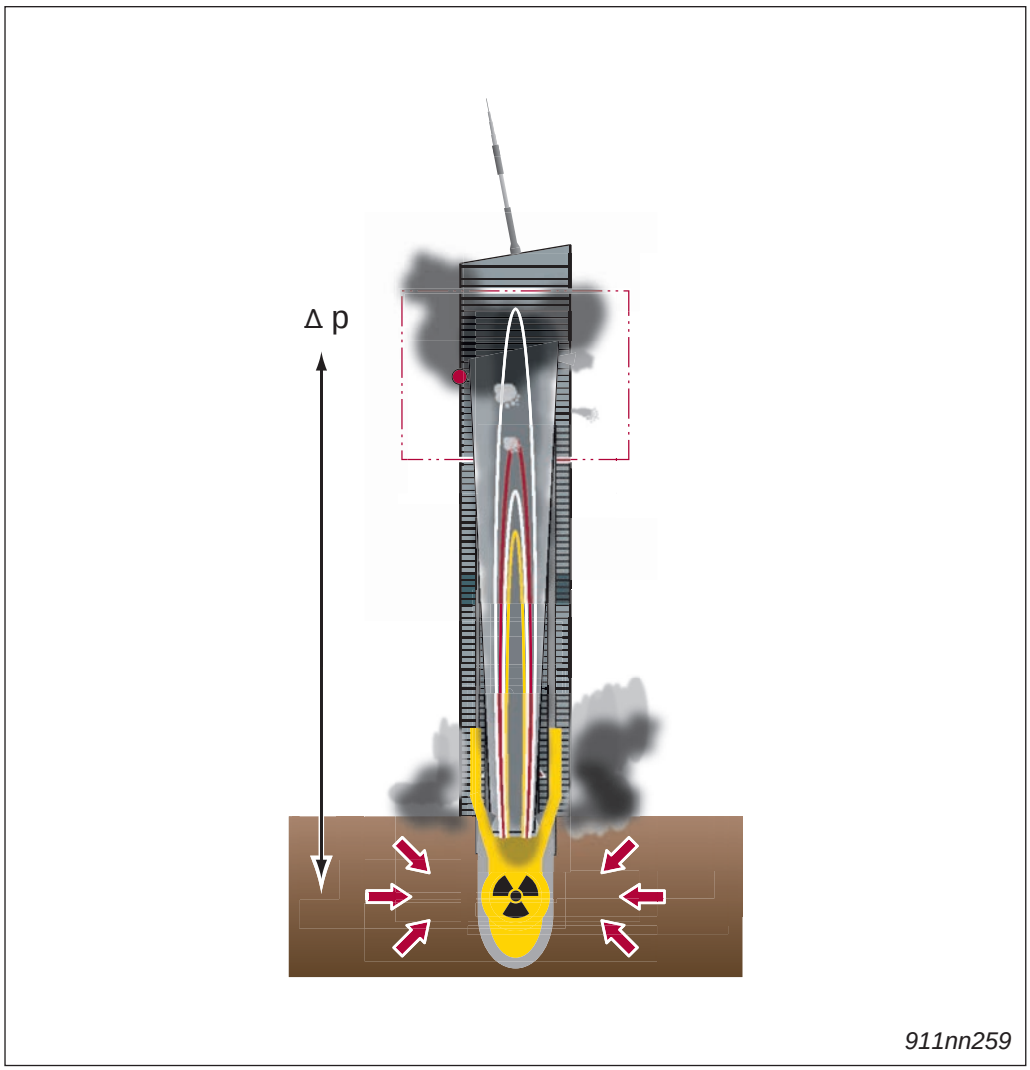


Fig. 29-2 Source (modified): http://de.wikipedia.org/wiki/Terroranschl%C3%A4ge_am_11._September_2001

Comparison / interpretation

The cracking of the facade was actually accompanied by a kind a of creaking / cracking noise, a loud bang was not reported.

- this rustling and creaking / cracking noise as micro-explosion is characteristic for the demolition of micro-structures

The suggested model gives a plausible explanation on the formation of material shooting out at the side however it is not necessarily the only cause.

It is likely that conventional explosive charges were used additionally.

30 Steam explosions of the facade (South Tower)

Observation

During the disintegration of the South Tower, explosions shooting out of the facade far below the line of destruction could be observed.

- the picture shows three steam explosions shooting out of the South Tower facade, one of them is just below the line of destruction

Audio sample: the sound of micro-explosions and the building growling (air stream)

Source @00:04: http://www.youtube.com/watch?v=k_64RigP1Fk

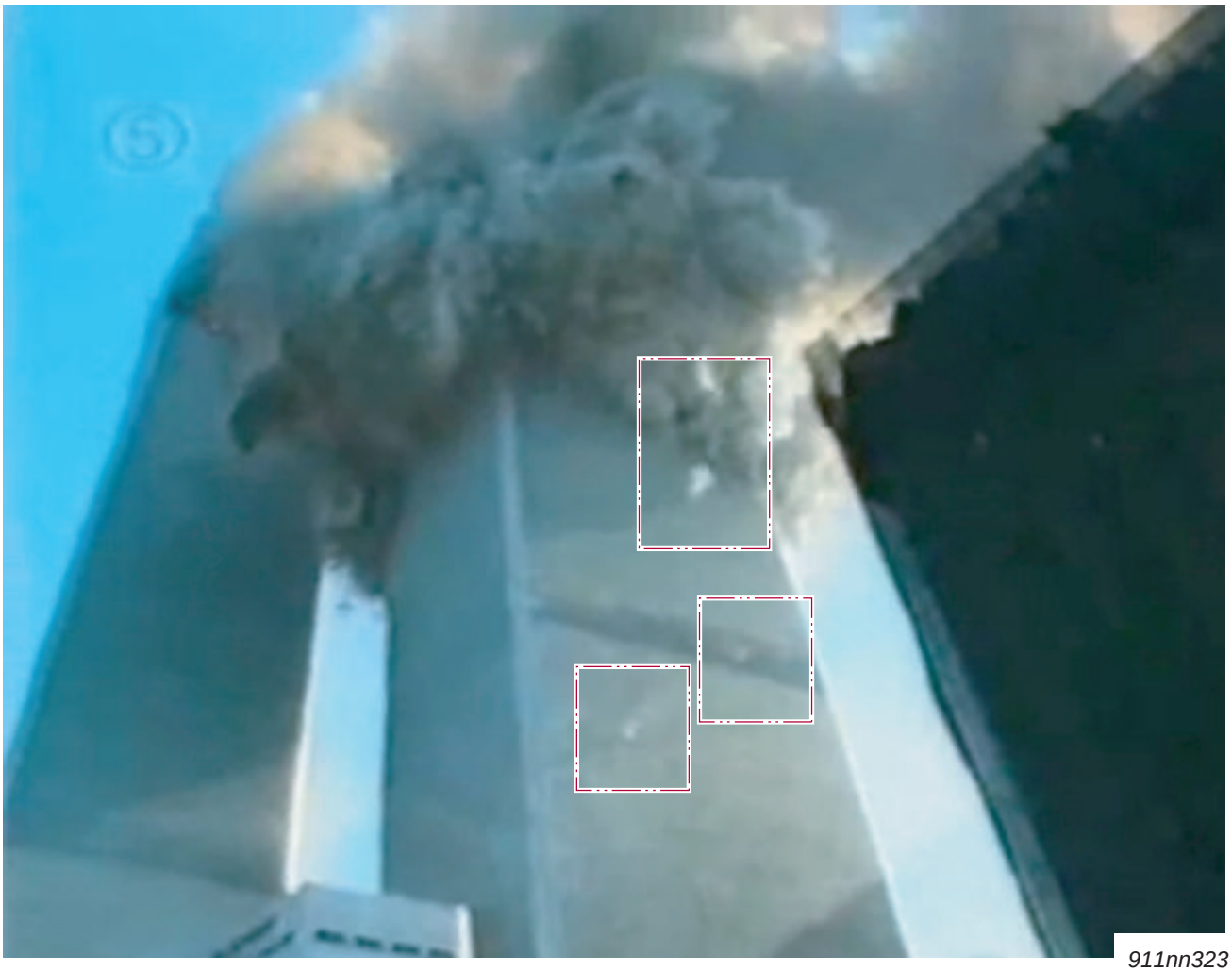


Fig. 30-1 Source @00:04: http://www.youtube.com/watch?v=k_64RigP1Fk

LOCAL VIDEO: **Sound of micro-explosions (cracking of the facade)**

www.911memorial4kids.org/videos/WTC2_Steam_Explosions.mp4

Source (0:01 – 0:06): http://www.youtube.com/watch?v=k_64RigP1Fk

Model approach

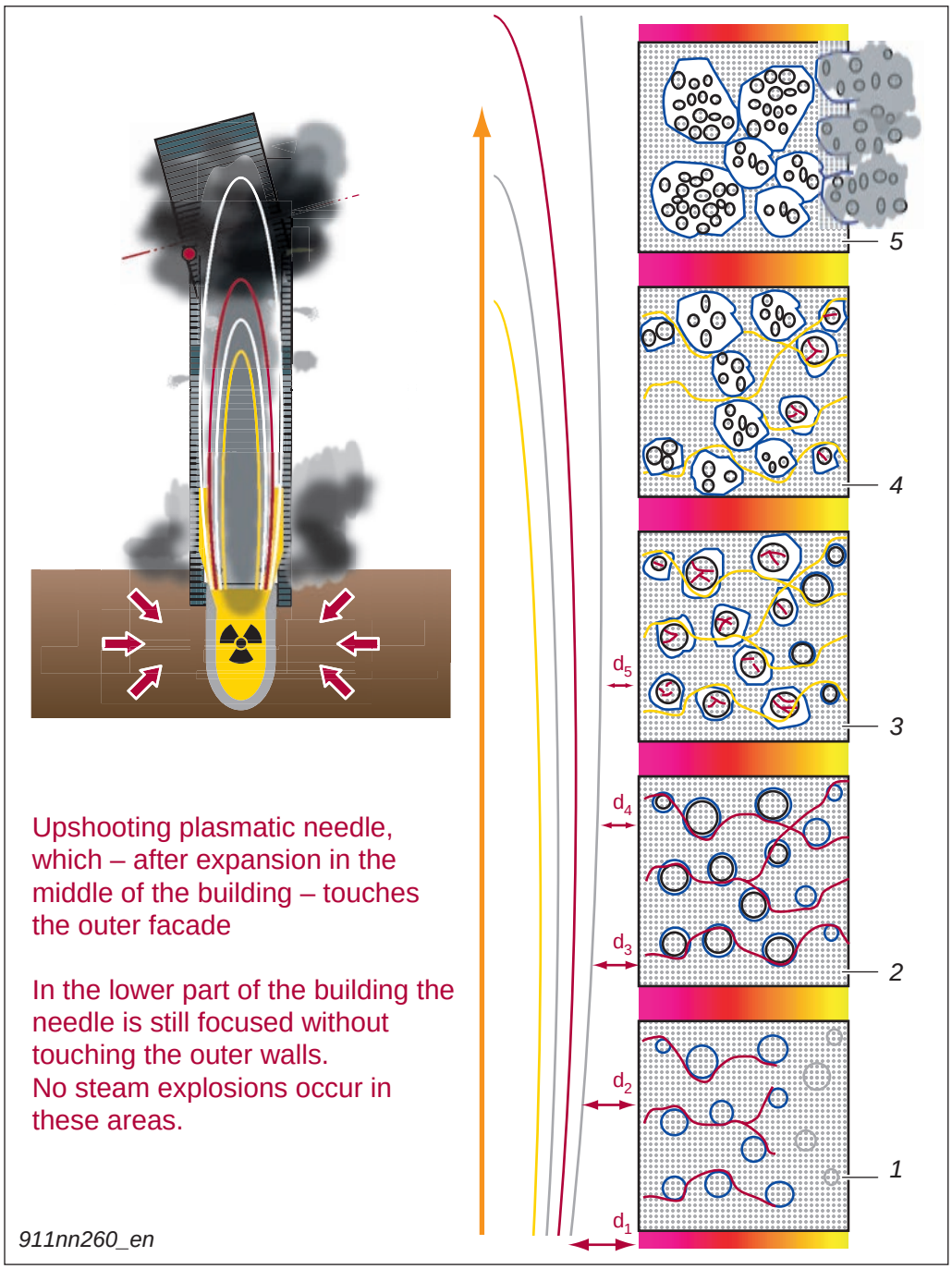


Fig. 30-2 Source (modified): http://www.thermopedia.com/content/1234/
Source (steam explosion lava in water): http://en.wikipedia.org/wiki/Steam_explosion

1 Formation of scissures and steam germs
2 Growth of the micro-scissures, steam formation
3 Expansion of the superheated vapor
4 Structures breaking up and more micro-germ cells are formed
5 Material starts being ejected

Comparison / interpretation

The suggested model gives a plausible explanation on the formation of material shooting out at the side however it is not necessarily the only cause.

31 Cavitation (South Tower)

Observation

With the onset of the South Tower's destruction process, the road in front of the tower subsided and released a fireball.

- this fireball and the road subsiding is only documented by eyewitness reports, pictures do not exist

Ron DiFrancesco

"I saw the fireball and heard a loud noise and... thats all I remember..."

Byron Pitts

"As the fireball rolled towards us Mika grabbed her shoes, I grabbed her hand and we ran like hell..."

NBC News (eyewitness report)

"...and the street below, caved in. The whole street caved in, you could see below the street ...And at that point there was like fireballs coming up."

Mika Brezinski

"All of a sudden there was a roll, an explosion and we could see coming at us a ball of flames, stories high..."

LOCAL VIDEO: **Eyewitness reports / U.S. test site for nuclear weapons**

www.911memorial4kids.org/videos/WTC2_fireballs_ground_level__nuclear_cavitation.mp4

Source 1: https://www.youtube.com/watch?v=e3qFh7IMizk

Source 2 (0:45 - 1:27): https://www.youtube.com/watch?v=RE4pwEjPTVc

Fig. 31-1 Source @1:17 AM: https://www.youtube.com/watch?v=e3qFh7IMizk

Model approach

The example shows the consequences of a nuclear explosive charge positioned at a relatively great depth – without channeling the energy upwards.

Observation:

- noticeable cavitation (subsidence of the ground)
- minor pulse response of the ground (needle shooting up in the middle)

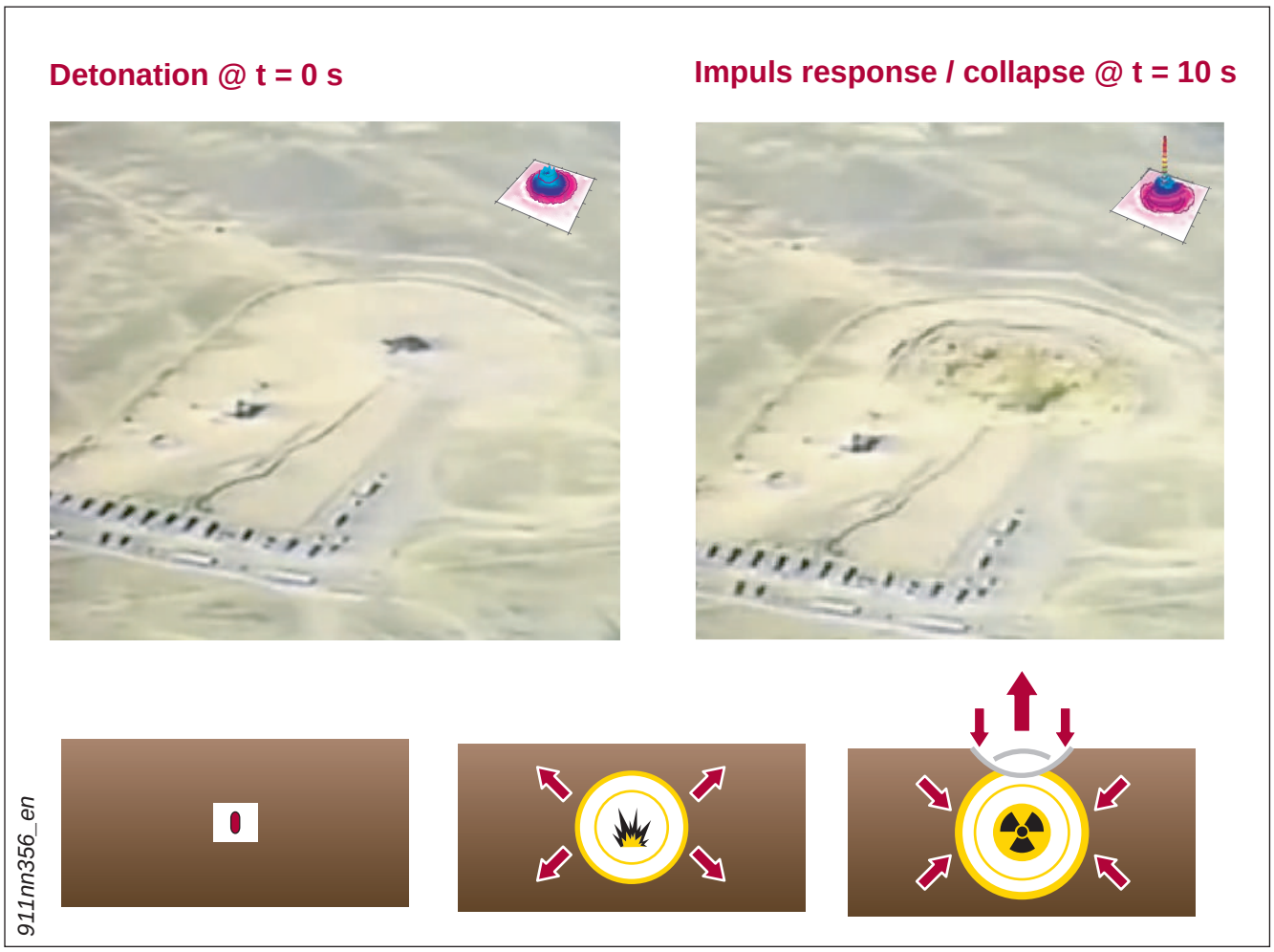


Fig. 31-2 Source 2 (@0:45 / @ 1:27): https://www.youtube.com/watch?v=RE4pwEjPTVc

During the nuclear detonation of the WTC the energy was canalized in upwards direction:

- minor cavitation (subsidence of the ground)
- strong pulse response of the ground (needle shooting up in the center)

Comparison / interpretation

This model is supported by eyewitness reports directly at the South Tower:

- the road subsiding
- the fireball shooting up from the ground

32 The torque disappearing & disintegration during free fall

Observation

When the South Tower collapsed, the spire turned for about 2.5 seconds in free fall. The rotation velocity then decreased [free downward acceleration of fall] and stopped at an inclination angle of approx. 15°.

911nn313

Fig. 32-1 Source: http://911research.wtc7.net/wtc/evidence/photos/wtc2exp5.html

"Conservation of angular momentum is the tendency of a rotating solid object to continue rotating at the same rate in the absence of torque."

"Initially the block consisting of the top 30 stories of the tower acted as a solid object, and rotated about a fulcrum near the impact zone."

"Although the fulcrum was the axis of rotation, the block had two types of momentum: the angular momentum of the block around its center of gravity, and the linear momentum of its center of gravity tilting away from the tower's vertical axis."

"When the portion of the building below the collapse zone disintegrated, the block would preserve its angular momentum by continuing to rotate at the same rate."

"But in reality, the rotation of the block rapidly decelerated as the downward plunge began. "

Analysis: http://911research.wtc7.net/wtc/analysis/collapses/shattering.html

- the top of the South Tower disintegrated during the free fall and hit the ground as dust

Model approach

During free fall, there are no forces acting on a body that can stop it or destroy it.

The model assumes the formation of a standing soliton (a superhot plasmatic needle) that:

- acted as locking bolt
- pulverized the spire (after neutron radiation weakening the structure)

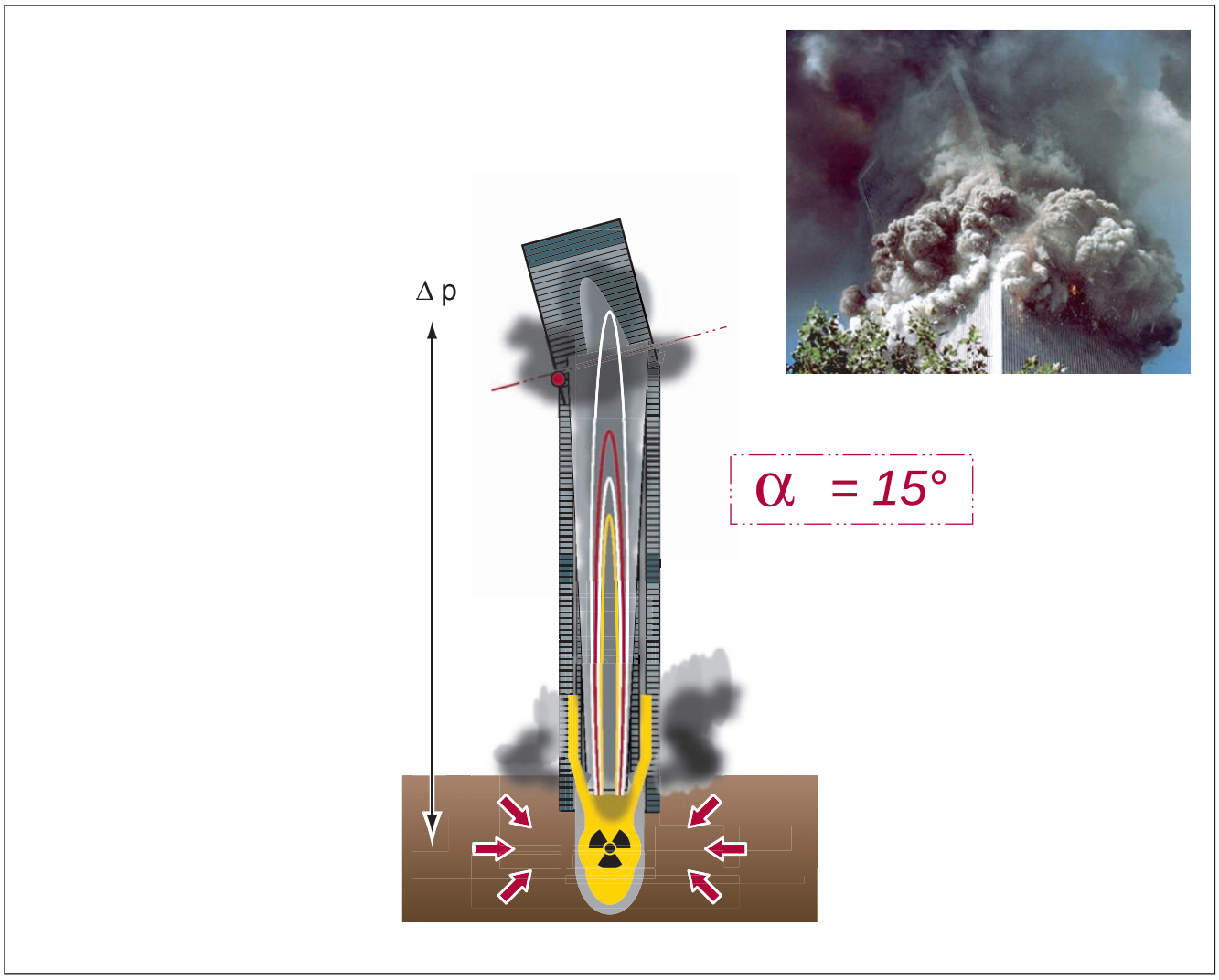


Fig. 32-2 Source (spire breaking off): http://911research.wtc7.net/wtc/evidence/photos/wtc2exp4.html

Comparison / interpretation

The suggested model gives a plausible explanation of the torque disappearing while disintegrating at the same time during the free fall.

Alternative [official] explanations on the phenomenon have not been made yet.

A conventional controlled demolition [that is suspected by different parties] cannot explain the disappearance of the turning moment.

33 Material distribution pattern (mushrooming)

Observation

Both twin towers distributed their material to all sides in an almost circular manner.

The concentration of material consisting of the buildings' debris was higher at the sides of the facades, the debris were partly stuck in other buildings .

- Example from the drawing:

  Impact spots of facade parts / cladding ('Exterior Columns / Cladding')

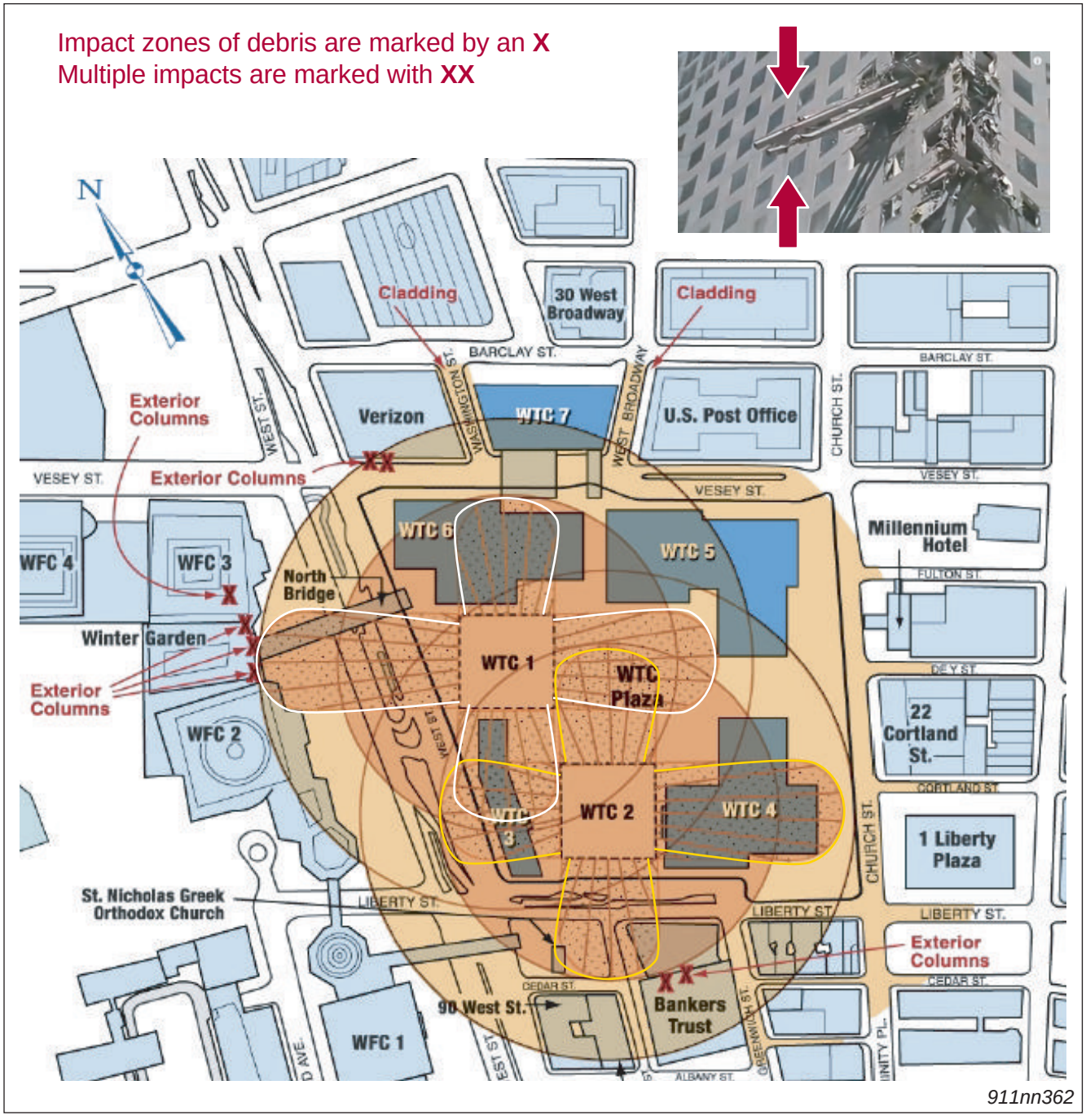


Fig. 33-1 Source: http://911research.wtc7.net/wtc/analysis/collapses/mushrooming.html

Model approach

The higher concentration of material at the sides of the facades results from the fact that the corner pillars of the towers temporarily withstood the internal pressure and thus prevented a completely circular distribution.

Parts of the facade correspondingly were shot away from the eruption center with a horizontal vector.

The overlay of horizontal and vertical vector resulted in a visual fountain effect during the disintegration.

Fig. 33-2 Source (6129063347_6c20994e00_o.jpg): http://911research.wtc7.net/wtc/evidence/photos/collapses.html

Comparison / interpretation

The suggested model gives a plausible explanation on the distribution pattern of the material as well as the material shooting out with horizontal vector at the points of the pressure compensation.

34 Dust clouds rising up from the ground

Observation

The twin towers were destroyed as standing towers from top to bottom, dust clouds shooting up from the ground at the same time.

Fig. 34-1 Source: http://911research.wtc7.net/wtc/evidence/photos/wtc1n1.html

Model approach

Both twin towers had open lobbies with generous entrance areas.

A small part of the upshooting plasmatic needle's overpressure emerged through the open lobby – similar to the atomized spray at the nozzle outlet of a fountain.

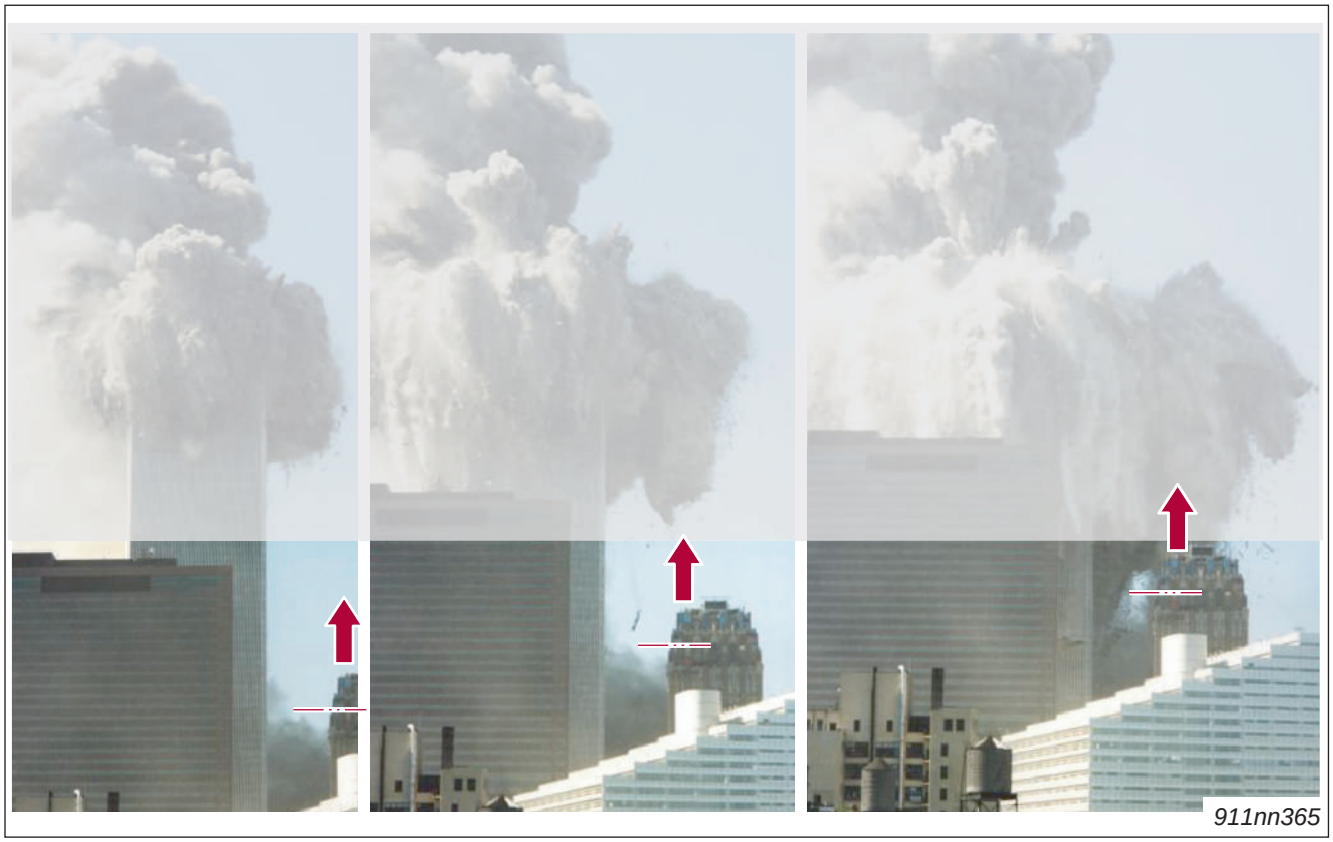


Fig. 34-2 Source: http://911research.wtc7.net/wtc/evidence/photos/wtc1exp5.html

1 Smoke cloud rises from the foundation of the building
2 Smoke cloud dies away while rising up
3 Smoke cloud merges with falling down material

Comparison / interpretation

The suggested model provides a plausible explanation on the dust clouds rising from the ground towards the direction of movement of the upshooting plasmatic needle inside the tower.

The model also conclusively explains white steam / white smoke emerging from the foundation of the building.

This white smoke on the ground can also be observed at the South Tower at the time of its destruction.

Source [@0:01]: http://www.youtube.com/watch?v=k_64RigP1Fk

35 Strong upward winds inside the North Tower

Observation 1: The miracle of Stairwell B

A protected pocket near the base saved the live of fourteen people, who survived the destruction of the North Tower ("the miracle of Stairwell B").

Firefighter Mickey Kross

> “It was like a 100-mile-per-hour hurricane”

Source: http://thevillager.com/villager_437/formerfirefighter.html

Firefighter Mickey Kross

> “My helmet started flying off my head, I had forgotten to snap on my helmet.
>
> So I grabbed my helmet... and pulled myself down into a corner”

Source @15:52: https://www.youtube.com/watch?v=EpTRNEVKMY4

The miracle of Stairwell B

The 9/11 Surfer

911nn592

Fig. 35-1 Source 1 @3:25: https://www.youtube.com/watch?v=yI7_ftokN6M
Source 2 @8:12: https://www.youtube.com/watch?v=9byu31dNQ3k

Observation 2: The 9/11 Surfer

Hurricane-like winds inside the North Tower saved the live of firefighter Pasquale Buzzelli during his 50 m freefall from the 22 floor down.

He landed landed unharmed on a pile of rubble, approximately 7 stories high.

Firefighter Pasquale Buzzelli

> “And as I was praying the wall cracked and the floor gave way and that’s when I started to freefall and I realized at that point – my God this is how I am going to die...
>
> A split second later I put up my eyes and I was just sitting there, totally numb, looking up a blue sky...”

Source @07:02: : https://www.youtube.com/watch?v=9byu31dNQ3k

Model approach

Pressure release did take place mainly through the elevator shafts – the nuclear chimney.

Strong winds upwards achieving more that 180 km per hour were produced due to friction of the air particles and pressure release from below.

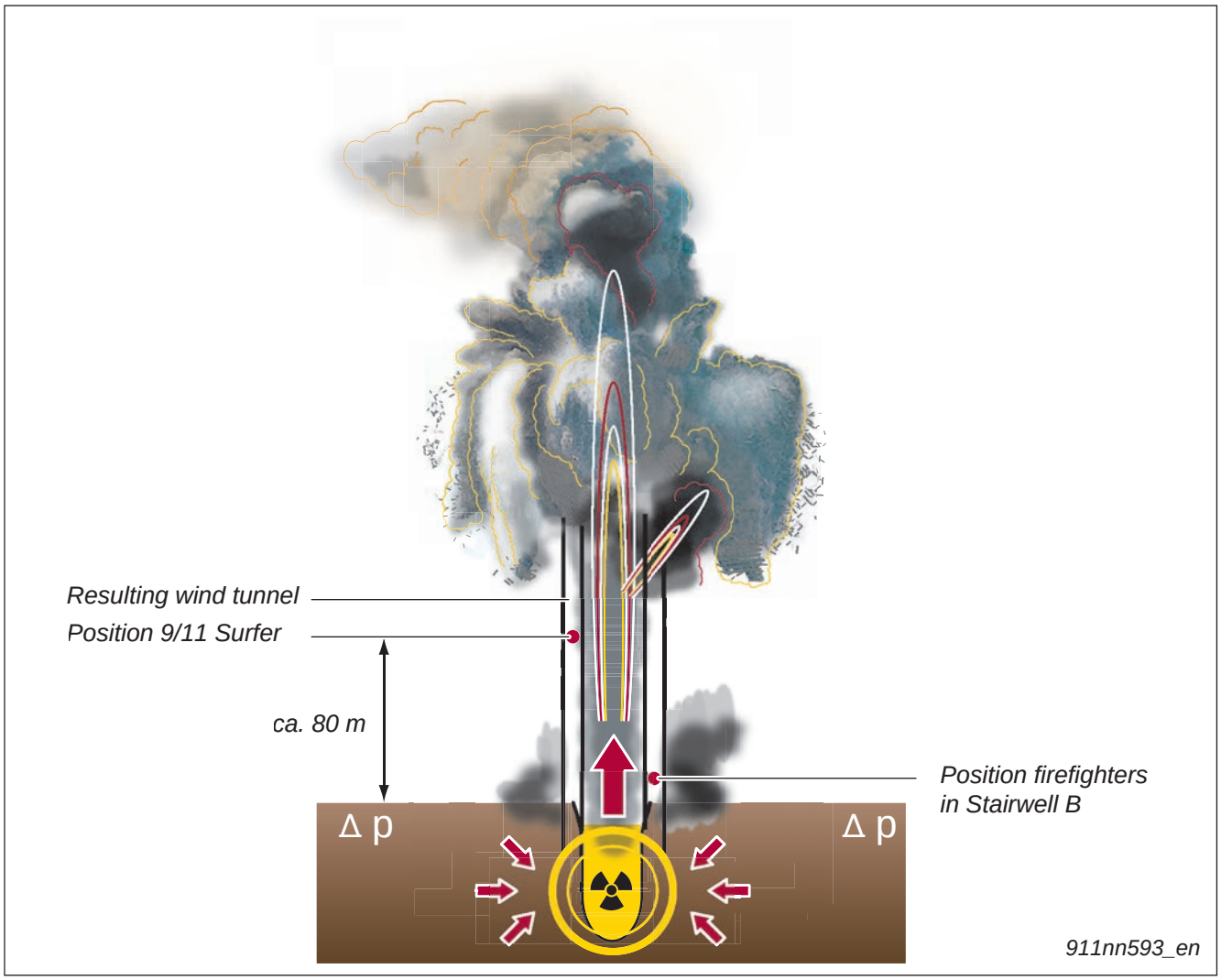


Fig. 35-2 Source: http://911research.wtc7.net/wtc/evidence/photos/wtc1exp5.html

Comparison / interpretation

The Miracle of Stairwell B could happen as the firefighters were near the nozzle, like being next to a machine gun or a hot fountain – but not in front but sidewards from it

The Miracle of The 9/11 Surfer could happen as parts of the building were still standing, the hurricane-like upward winds were channeled and trapped vertically. In this wind tunnel the 9/11 surfer was posed on the rubble when the pressure-induced hurricane abated.

36 Modeling the overall process

The following destruction process is consistent and complies with the observations made on location.

1. Ensuring pressure compensation

- The buildings (417 m high) are opened laterally at a height of approx. 350 m by means of a plane crash and possibly other auxiliary explosive charges
- Connecting the elevator shafts by means of conventional detonations

Result

This guarantees a pressure compensation between the center of explosion at a depth of 50 m and the impact opening at a height of 350 m.

This prevents the building from bursting at the foundation.

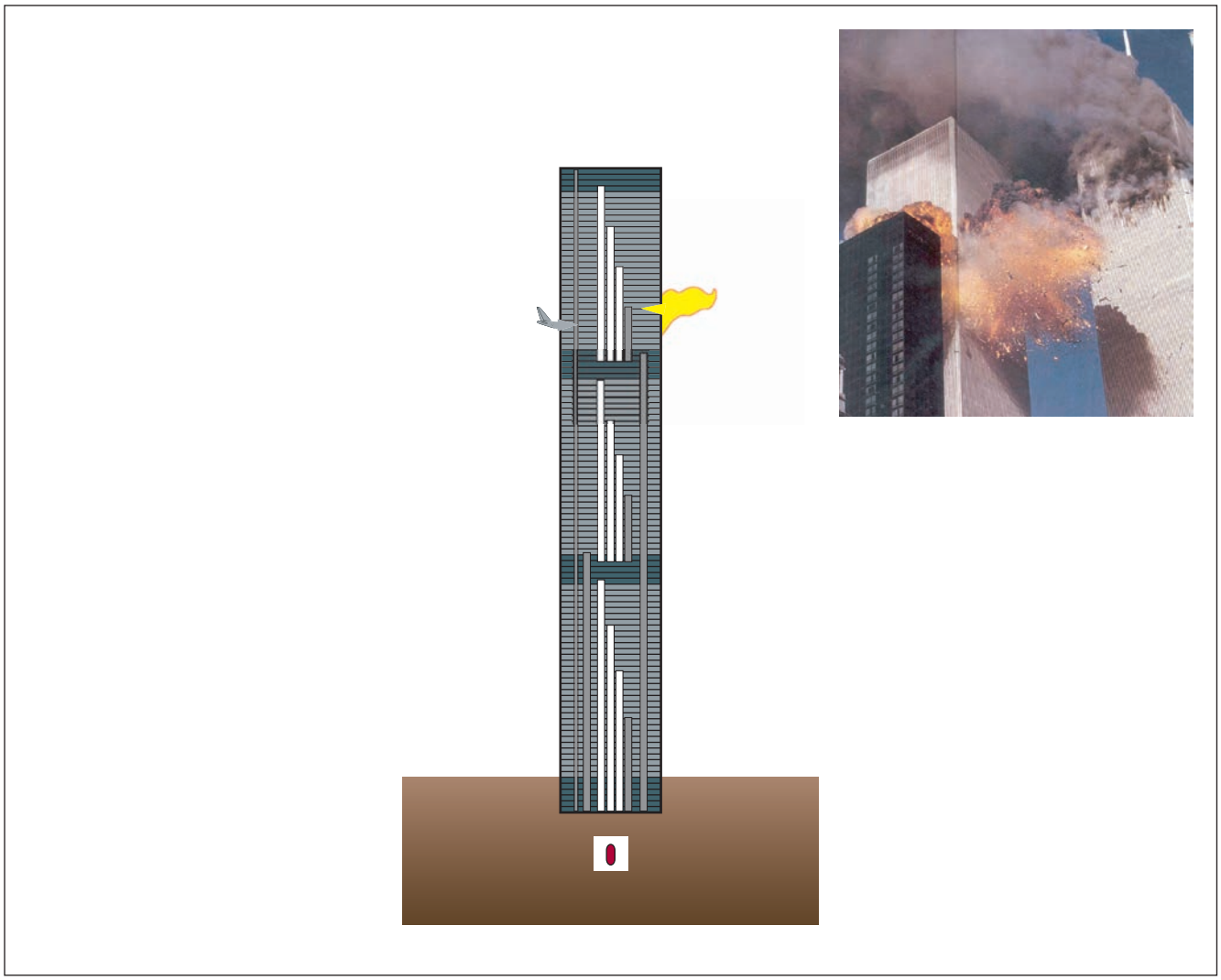


Fig. 36-1 Source (impact of the plane): http://911research.wtc7.net/wtc/evidence/photos/impacts.html

2. Absorption of primary energy

- Ignition of the nuclear weapon (at time point t = 0 s)

  Transfer of the primary energy into the rockbed (pressure and pulse absorption)

  Transfer of radiation energy (neutron radiation) into the ground / building

- Propagation of a shock wave in the rockbed (to the side and downwards – the building quakes 10 seconds before its destruction) away from the center of explosion
- Propagation of a shock wave away from the center of explosion and upwards through the channel of the connected elevator shafts

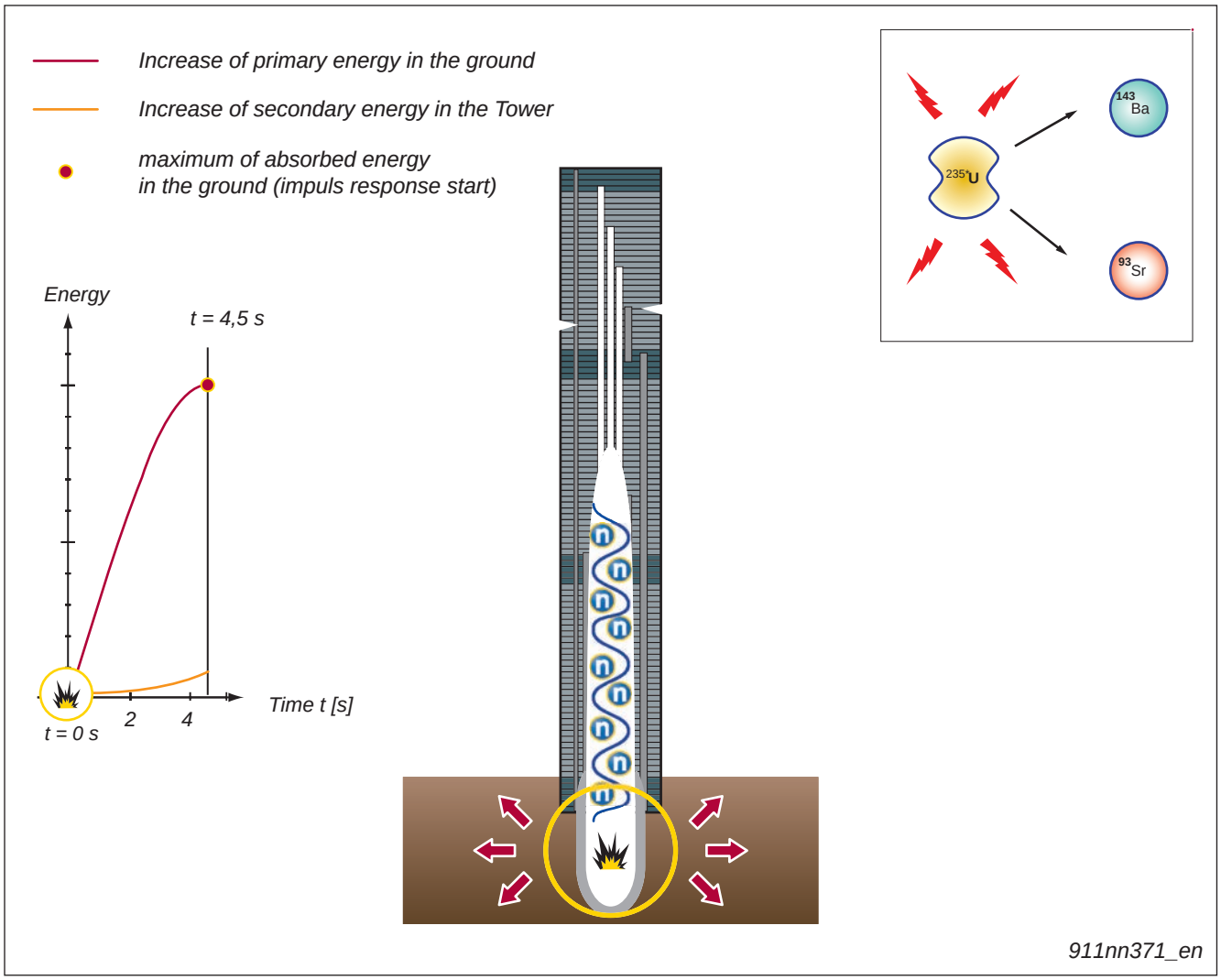


Fig. 36-2 Source (edited, original by Dimitri A. Khalezov):
http://en.wikipedia.org/wiki/File:Nuclear-demolition-damages.jpg
http://en.wikipedia.org/wiki/User:Smallman12q/Nuclear_Demolition

3. Absorption secondary energy / formation of soliton

- Pulse response of the rockbed

  Superhot plasmatic needle shooting up through the elevator shafts – a so-called soliton

- Pressure compensation at the impact spot at a height of approx. 350 m
- Starting emission of iron steam / pulverized concrete (time point t = 11.2 s)

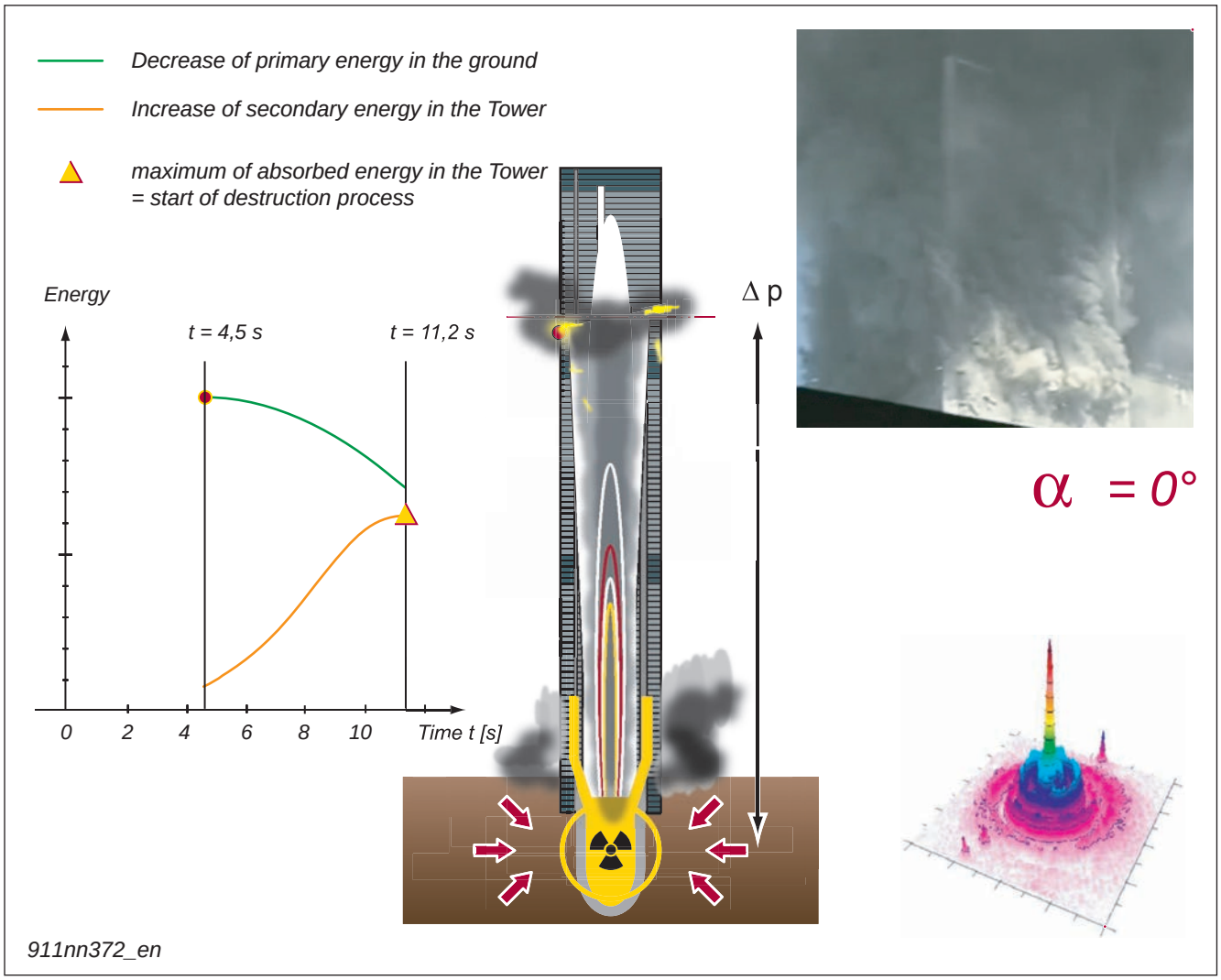


Fig. 36-3 Source (pressure compensation): http://911research.wtc7.net/wtc/evidence/videos/wtc2_from_south.html

4. Destructive front starts to move downwards with steam explosions at the facade

- The soliton stabilizes the spire that is about to break off at an angle of inclination of 15° – the disintegration of the spire starts at the same time
- the soliton that is pushed against the outer walls is compressed

  the result are multiple steam explosions with material ejection at the outer facade
- from top to bottom moving front of destruction [t= 11.2 s to t = 22 s; collapse]

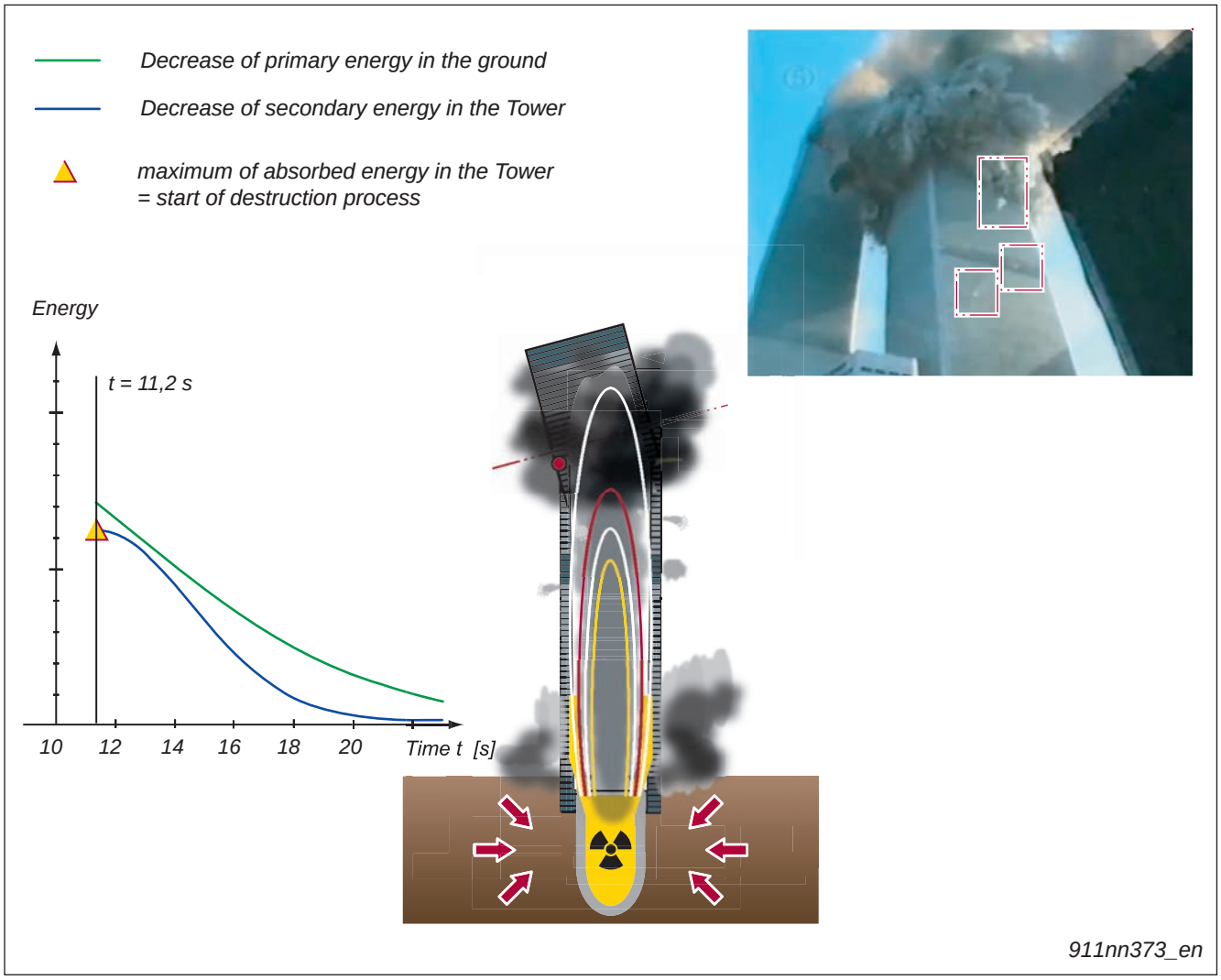


Fig. 36-4 Source @00:04 (steam explosions): http://www.youtube.com/watch?v=k_64RigP1Fk

5. Complete disintegration and formation of a fountain

- The spire breaks through the soliton

  a central, black cloud consisting of iron steam (sublimated building core) is ejected
- fountain-like eruption and collapse of the remaining structures
- Reduction of pressure in the ground (collapsing secondary energy source)

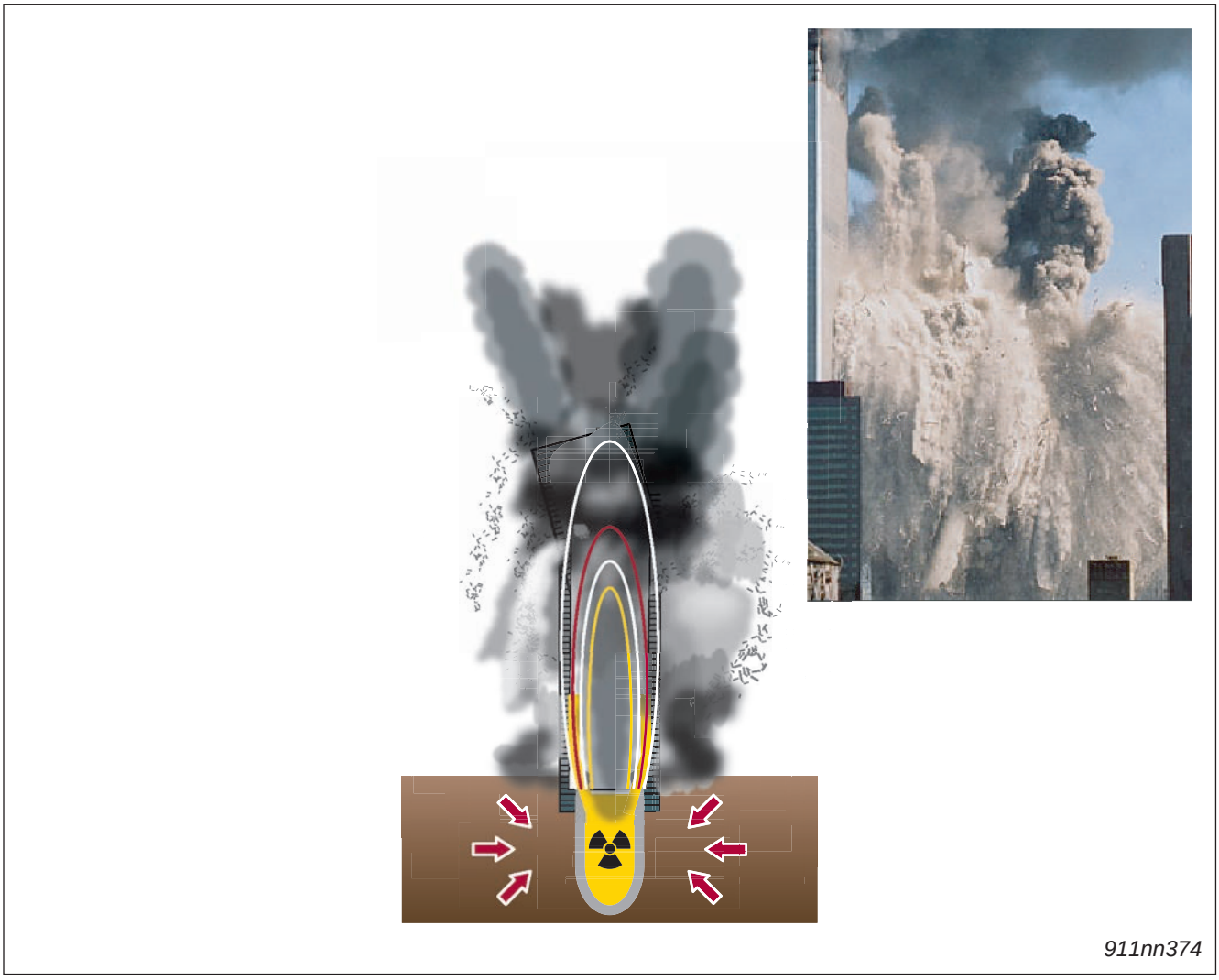


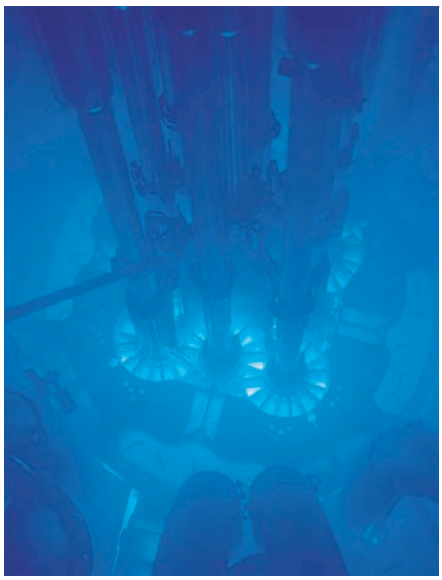
Fig. 36-5 Source (soliton breaking out: http://911research.wtc7.net/wtc/evidence/photos/wtc2exp1.html

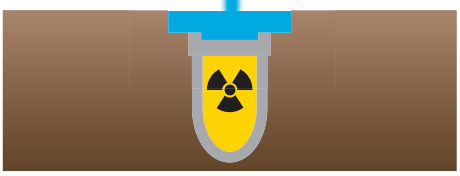
6. Protective barriers / radiation protection measures

- the cavity was sealed with concrete, water basins were installed to absorb radioactive radiation
- searchlights emitting light with the same wavelength as Cherenkov radiation

  Cherenkov radiation (glow of a nuclear reactor): blue light effects due to interaction of water steam in the air and radioactive radiation

  As a consequence, these light effects are efficiently outshone and remain invisible





911nn375

Fig. 36-6 Source (Cherenkov radiation): http://en.wikipedia.org/wiki/Cherenkov_radiation
Source (radiation protection shield): https://en.wikipedia.org/wiki/National_September_11_Memorial_%26_Museum

37 Annex A: At the Pentagon (facade)

Observation

Two “event zones” are visible at the Pentagon:

- **Zone 1** (left side): V-like traces of soot indicating a fire on the facade

  in front of the building a distinctive heap of material
- **Zone 2** (right side): the collapsed facade

911nn142

Fig. 37-1 Source: https://publicintelligence.net/wp-content/uploads/2010/09/010914-F-8006R-002.jpg

Model approach

Two independent events led to the destructions:

- Zone 1:

  Demolition of a small plane split seconds prior to the impact
- Zone 2:

  targeted explosions inside the building

YOUTUBE VIDEO / REFERENCE: **Behind the smoke curtain**

https://www.youtube.com/watch?v=4fvJ8nFa5Qk

Seconds after the event

Fig. 37-2 Source: http://911research.com/pentagon/evidence/photos/index.html

Minutes after the event – facade still standing

Fig. 37-3 Source: http://911research.com/pentagon/evidence/photos/bluehi.html

38 Annex B: At the Pentagon (plane)

Observation

- **Zone 1** (left): all plane debris originate from only one small plane and all of it was found at a heliport 50 m away (heliport tower: far left in the picture)
- **Zone 2** (right): the facade was not destroyed by the first explosive wave.

  The picture shows the facade still standing and surrounded by smoke

Fig. 38-1 Source: http://911research.wtc7.net/pentagon/evidence/photos/aerial1.html

Model approach

The plane was destroyed in front of the building just before the impact, directly next to the tower of the heliport.

This corresponds with witness reports of tower personnel.

YOUTUBE VIDEO / REFERENCE: **Behind the smoke curtain**

https://www.youtube.com/watch?v=4fvJ8nFa5Qk

Destroyed, burning object at the heliport

911nn133

Fig. 38-2 Source: http://911blogger.com/news/2006-11-25/military-exercises-and-911-pentagon-attack

Debris of the wreck – directly at the heliport tower

911nn144

Fig. 38-3 Source: http://911research.wtc7.net/pentagon/evidence/photos/index.html

39 Annex C: Pennsylvania

Observation

An aerial image from 1994 shows that the “smashed plane’s” “imprint of the wings” is in reality a geographical downcast.

Fig. 39-1 United States Geological Survey USGS – Map of Shanksville (1994)
Source @27:00 [Solving 911 Ends the War]: https://www.youtube.com/watch?v=Nbh_Z6lU4QU

Model approach

The downcast was blasted open at the center by means of a small missile simulating the crash site because of the additional hole in the ground.

The military plane and the detonation

Residents report a military plane flying at a low altitude. After the detonation they took pictures of a black steam cloud whose shape is typical for an exploded missile.

911nn508

Fig. 39-2 Source @6:28, photograph by Val McClatchey: https://www.youtube.com/watch?v=MQTNy6Jb26A

The hole in the ground that was blasted open

911nn506

Fig. 39-3 Source @26:00 [Solving 911 Ends the War]: https://www.youtube.com/watch?v=Nbh_Z6lU4QU

40 Annex D: Building no. 6

Observation

World Trade Center 6, the U.S. Customshouse, had a deep circular crater reaching down to the foundation.

Fig. 40-1 Source: https://www.flickr.com/photos/ooocha/3060718312/in/photostream/

Model approach

- **Option 1**: the circular hole was punched out by North Tower debris crashing down
- **Option 2**: the foundation (including the customs investigation archive) was destroyed with a targeted explosive charge, the explosion produced the circular hole in the entire building

  Pictures taken inside show similarities with buildings damaged by explosions (Oklahoma City Bombing – OCB).

Inside the building's hole / comparison with a detonation (Oklahoma City Bombing – OCB)

Fig. 40-2 Source @01:56 / @05:14: https://www.youtube.com/watch?v=ASl6dxlMPGQ

Building undamaged

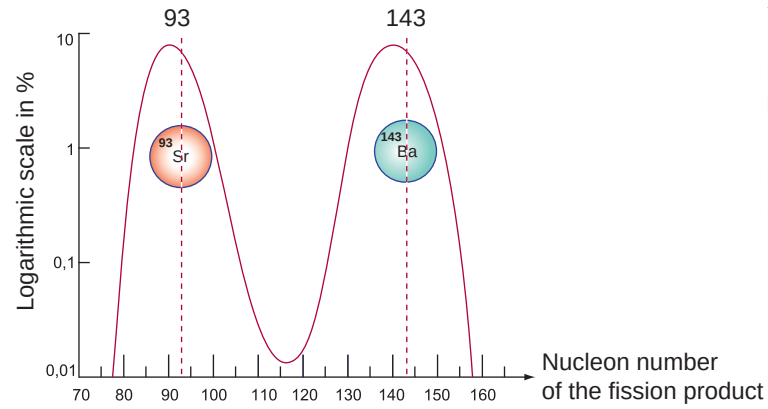
Fig. 40-3 Source @12:09 AM: https://www.youtube.com/watch?v=ASl6dxlMPGQ

41 Annex E: Fission of uranium

The fission of ^{235}uranium always produces atom fragments of different masses.

Two elements are close to the probability maximum of uranium fission:

- ^{143}barium
- ^{93}strontium



Source: http://de.wikipedia.org/wiki/Kernspaltung

Probability distribution of
Uranium 235 fission products

Both fission products are
HIGHLY RADIOACTIVE !

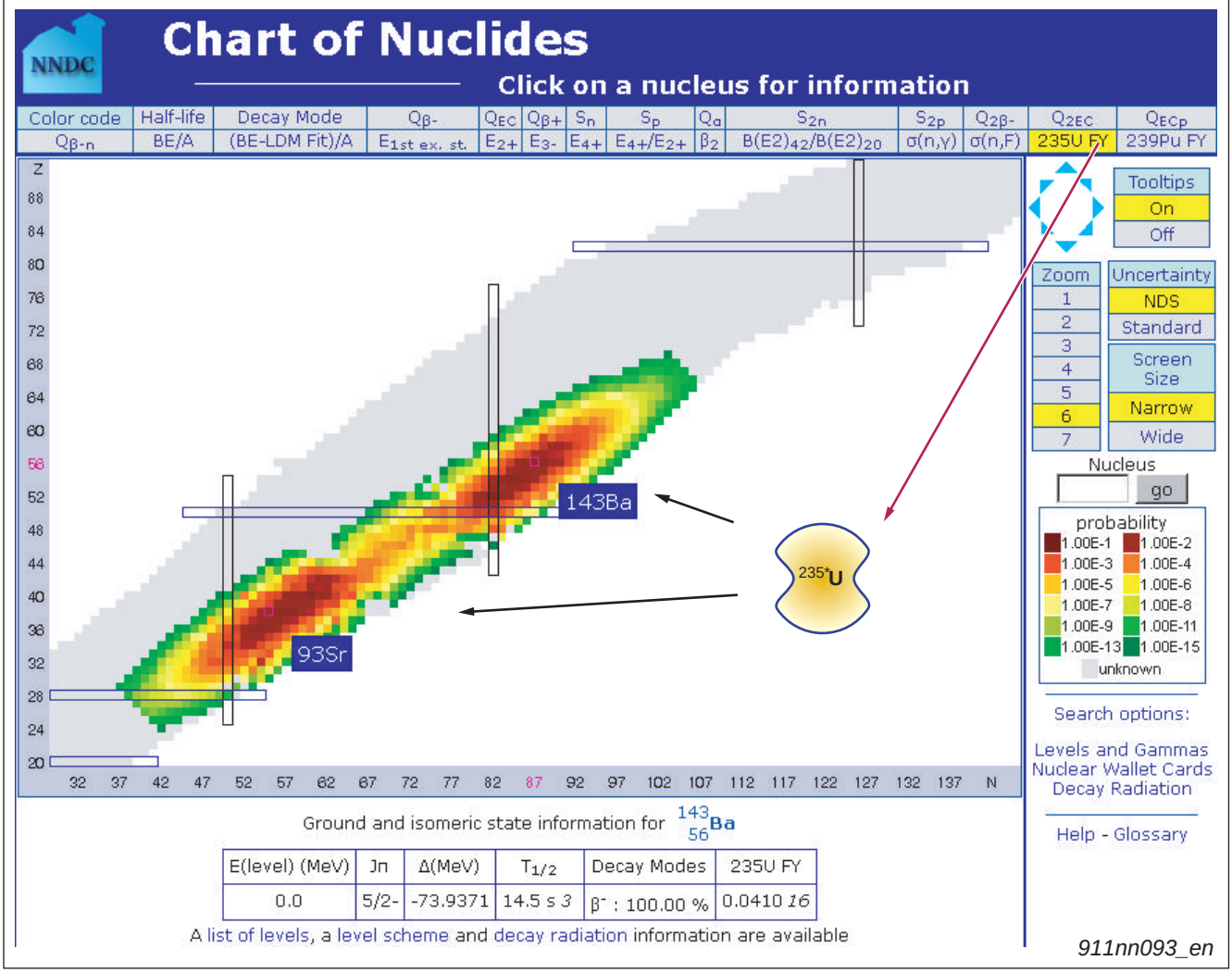


Fig. 41-1 Source: http://www.nndc.bnl.gov/chart/reColor.jsp?newColor=235ufy

Radioactive series after uranium fission

After the uranium fission, the produced elements are radioactive: they decay by releasing β radiation according to a distinct pattern.

All elements that would be expected in a radioactive decay chain are present in the dust of the WTC.

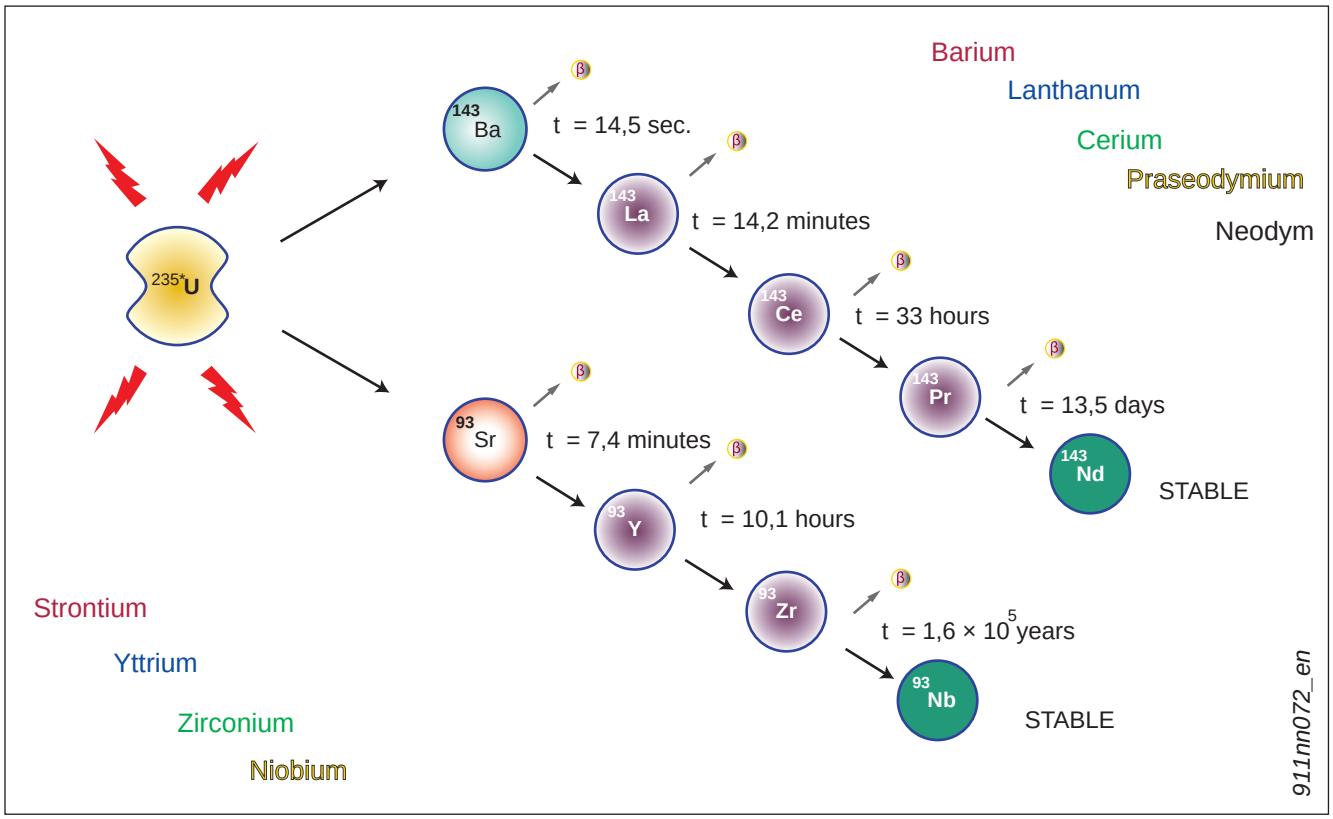


Fig. 41-2 Source 1 (modified): http://www.nucleardemolition.com/
Source 2 (half lives): http://www.internetchemie.info/chemiewiki/index.php?title=Barium-Isotope

Example

Radioactive β decay of strontium93 after uranium fission

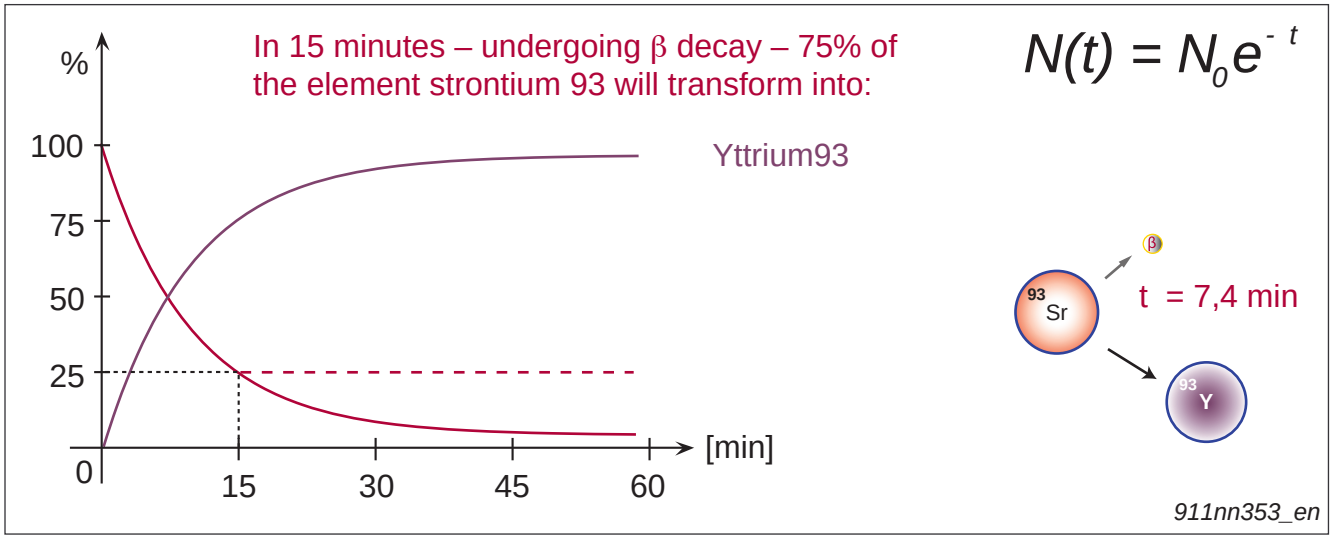


Fig. 41-3 Source (modified): http://www.nucleardemolition.com/

42 Annex F: neutron scattering

The fission of ^{235}uranium produces also a powerful flux of fast neutrons with a mean energy of approx. 2 MeV (which equates to a kinetic energy of 28,000 km/s).

The probability of a particle interaction is called cross section and is measured in [barn] units.

The probability of absorption of slow neutrons by the iron nucleus is:

- sigma [^{56}Fe] = 2 barn (this is a 100 times inferior to Boron)

The probability of scattering of fast neutrons by the iron nucleus is:

- sigma [^{56}Fe] = 20 barn (this is 10 times superior to Boron)

Cross section of some elements

Remarkable: iron has a particular high cross section in respect of its capability to scatter fast neutrons (which are present after uranium fission).

		Thermal cross section (barn)			Fast cross section (barn)		
		Scattering	Capture	Fission	Scattering	Capture	Fission
Moderator	H-1	20	0.2	-	4	0.00004	-
	H-2	4	0.0003	-	3	0.000007	-
	C (nat)	5	0.002	-	2	0.00001	-
Structural materials, others	Au-197	8.2	98.7	-	4	0.08	-
	Zr-90	5	0.006	-	5	0.006	-
	Fe-56	10	2	-	20	0.003	-
	Cr-52	3	0.5	-	3	0.002	-
	Co-59	6	37.2	-	4	0.006	-
	Ni-58	20	3	-	3	0.008	-
	O-16	4	0.0001	-	3	0.00000003	-
Absorber	B-10	2	200	-	2	0.4	-
	Cd-113	100	30,000	-	4	0.05	-
	Xe-135	400,000	2,000,000	-	5	0.0008	-
	In-115	2	100	-	4	0.02	-
Fuel	U-235	10	99	583[5]	4	0.09	1
	U-238	9	2	0.00002	5	0.07	0.3
	Pu-239	8	269	748	5	0.05	2

911nn527

Fig. 42-1 Source 1: https://en.wikipedia.org/wiki/Neutron_cross_section
Source 2: https://en.wikipedia.org/wiki/Neutron_temperature

Scattering of neutrons after uranium fission

Scattering of neutrons by the iron nucleus is sufficient to partially transfer the neutrons' energy to the iron nucleus and thus evaporate all solid structures – this without the iron being transformed into a [as the case may be radioactive] isotope.

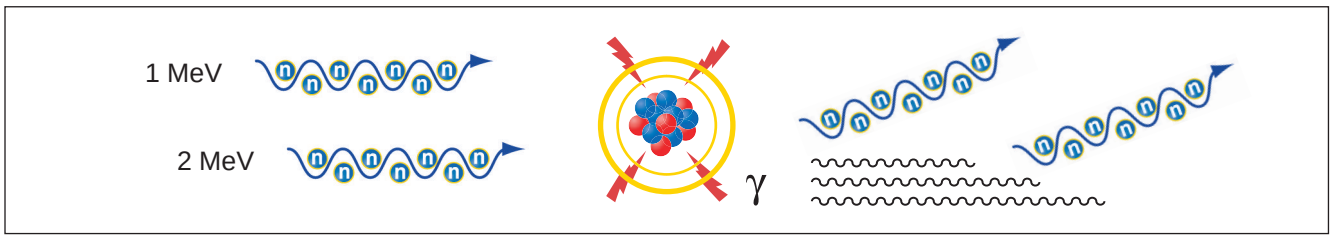


Fig. 42-2 Scattering of fast neutrons by a nucleus

During neutron scattering and/or absorption a broad spectrum of radiation is formed additionally, which will again interact with iron and will contribute to the destruction of solid matter.

Example: program for calculating the radiation mix after a particle reaction

Computer models are available online which make it easy to check what kind of radiation mix can be expected after a particle reaction (e.g. fast neutrons with the iron nucleus):

- ^{56}Fe + neutron with 2 MeV –> results in a particle reaction and a radiation mix

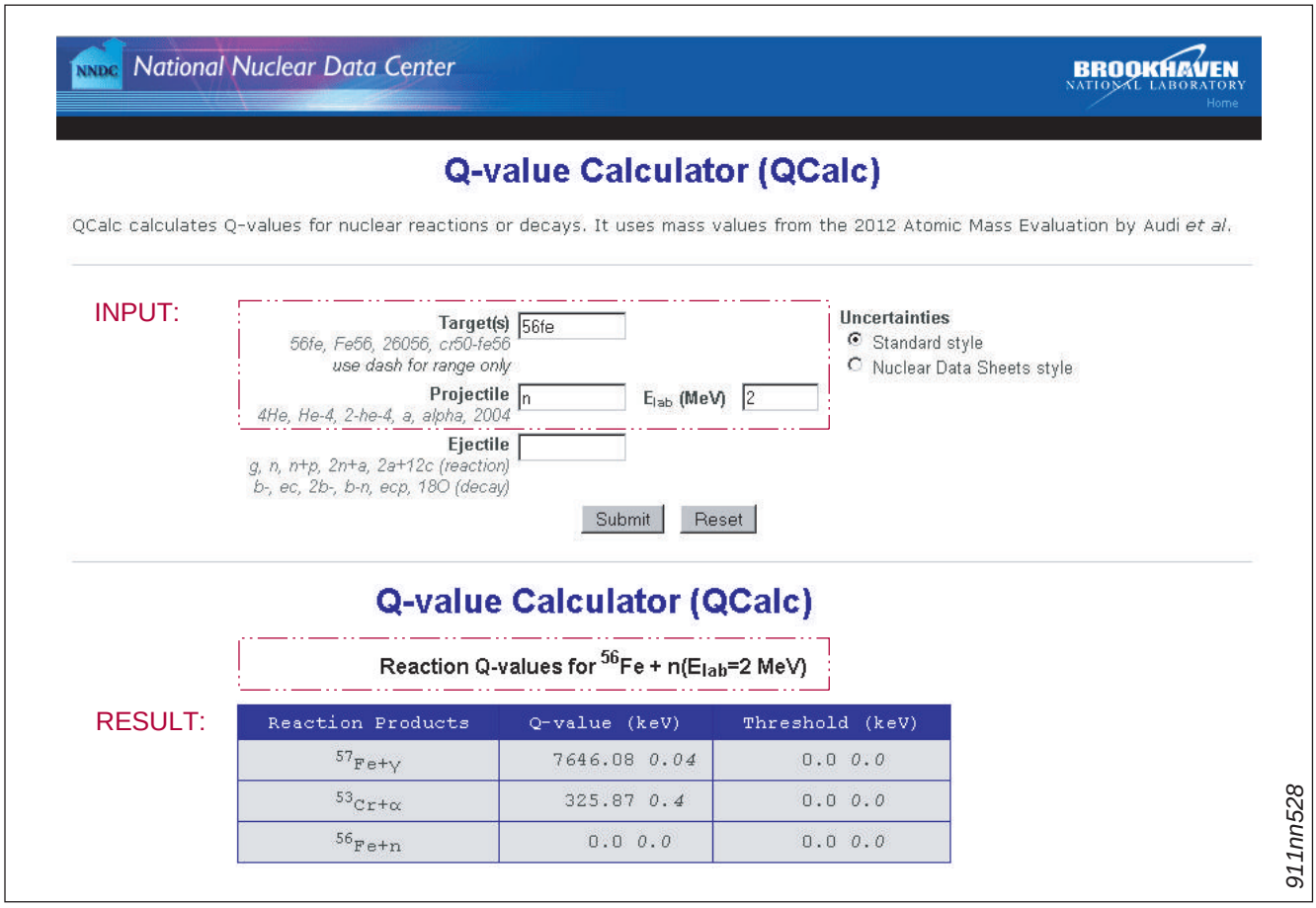


Fig. 42-3 Source: http://www.nndc.bnl.gov/qcalc/index.jsp

43 Annex G: Analysis records (barium decay chain)

A few days after September 11 the USGS collected and analyzed dust samples from about 40 different locations.

- the analysis results prove a radioactive process of disintegration of barium

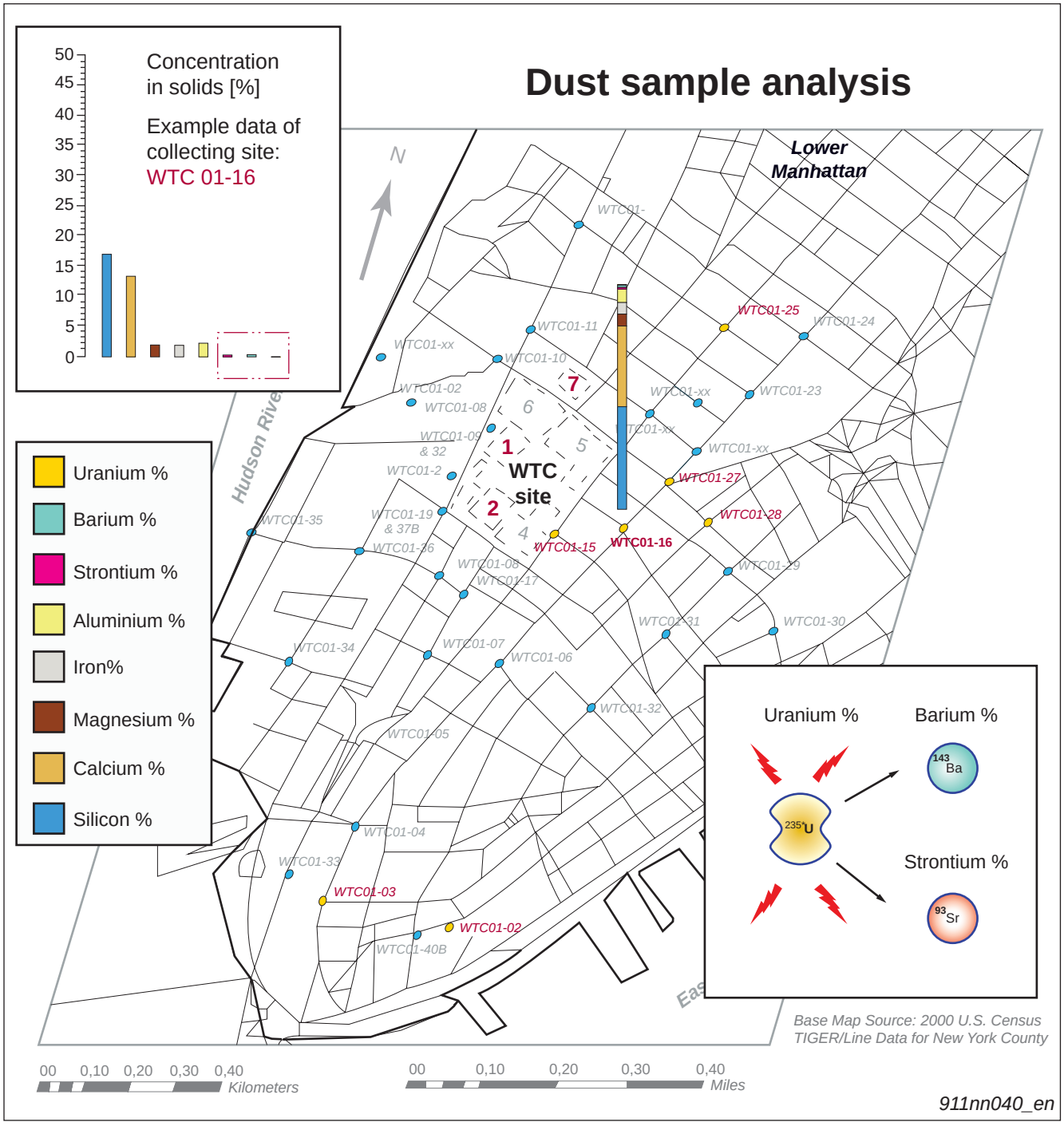


Fig. 43-1 Source (edited): http://pubs.usgs.gov/of/2001/ofr-01-0429/chem1/index.html#Sampling
DOWNLOAD *of the svg file*www.911memorial4kids.org/svg/911nn040_xx.svg

Barium decay chain

Leach Table 1. Table summarizing analytical results for solutions leached from WTC dust and beam coating samples. Details of the leach test methods are summarized in the text.

Leach Table 1					
	Outdoor dust samples				
	WTC-01-2	WTC-01-3	WTC-01-05	WTC-01-06	WTC-01-14
pH	10.1	9.51	9.9	9.65	9.68
Specific Conductance mS/cm	1.58	1.31	1.9	2.01	2.03
Chloride mg/L	7.8	3.7	nm	nm	5.1
Fluoride mg/L	<.8	<.8	nm	nm	<1.6
Nitrate mg/L	1.5	0.5	nm	nm	1.4
Calcium mg/L	388	314	577	523	544
Magnesium mg/L	1.75	2.83	3.2	3.65	3.52
Potassium mg/L	6	3.8	7.71	6.33	6.9
Silicon mg/L	5.8	4.5	8.1	5.9	6.4
Phosphorous mg/L	0.05	0.1	0.04	0.03	0.05
Sodium mg/L	6.1	2.84	7.69	5.76	3.05
Sulfate mg/L	834	694	1210	1040	1250
Aluminum ▯g/L	111	44.6	24.3	26	30.3
Antimony ▯g/L	33.1	22.9	46.3	42	35.9
Arsenic ▯g/L	1	1	< 3	< 3	1
Barium ▯g/L	36.5	28.4	38.3	36	45.1
Beryllium ▯g/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bismuth ▯g/L	< 0.005	0.01	< 0.005	< 0.005	0.01
Cadmium ▯g/L	0.44	0.26	1.08	0.82	0.37
Cerium ▯g/L	< 0.01	0.03	0.02	0.02	0.01
Cesium ▯g/L	0.08	0.05	0.04	0.04	0.06
Chromium ▯g/L	25.9	9	25.1	18.2	31.4
Cobalt ▯g/L	1.23	0.72	1.04	1.02	1.15
Copper ▯g/L	19.2	19.8	22.4	13.5	11.4
Gallium ▯g/L	0.23	0.1	0.1	0.1	0.1

Germanium µg/L	0.07	0.09	0.1	0.08	0.07
Iron µg/L	< 50	< 50	< 50	< 50	< 50
Lanthanum µg/L	< 0.01	0.01	< 0.01	0.01	< 0.01
Lead µg/L	0.64	0.5	0.5	0.51	0.97
Lithium µg/L	11.2	4.1	11.2	9.4	9.8
Manganese µg/L	1	3.2	2	3.8	2.3
Mercury ng/L	nm	nm	18	7	nm
Molybdenum µg/L	56.8	14	45.7	42.2	30.8
Nickel µg/L	18.1	14.4	21.4	19.4	25.2
Niobium µg/L	< 0.02	0.03	0.1	0.1	0.02
Rubidium µg/L	12.6	8.08	12.4	12.9	14.1
Scandium µg/L	1.8	1.3	2.2	1.9	1.9
Selenium µg/L	2.5	1	< 5	< 5	1.9
Silver µg/L	< 3	< 3	nm	nm	< 3
Strontium µg/L	834	561	1150	1100	1230
Thallium µg/L	< 0.05	< 0.05	0.2	0.06	< 0.05
Thorium µg/L	0.04	0.09	0.8	0.37	0.06
Titanium µg/L	17.9	13.4	18.9	18.7	25.7
Uranium µg/L	0.03	0.15	0.08	0.09	0.06
Vanadium µg/L	6.2	6	11.8	8.8	9.7
Yttrium µg/L	< 0.01	< 0.01	0.08	0.08	0.11
Zinc µg/L	10.7	7.7	15.6	20.9	11.6
Zirconium µg/L	0.07	0.1	0.5	0.3	0.08

nm - not measured; ppm - parts per million; mg/L - milligrams per liter; µg/L - micrograms per liter; ng/L - nanograms per liter; mS/cm - milliSiemens per centimeter

Leach Table 1, continued

	Outdoor dust samples, continued				
	WTC-01-15	WTC-01-16	WTC-01-17	WTC-01-21	WTC-01-22
pH	10	8.22	9.47	9.98	10.4
Specific Conductance mS/cm	2.01	2.08	1.96	2.02	2.02
Chloride mg/L	3.4	8.5	nm	7.8	8.1

Fluoride mg/L	<1.6	<1.6	nm	<1.6	<1.6
Nitrate mg/L	1.5	<1.6	nm	2.4	1.5
Calcium mg/L	528	526	517	549	529
Magnesium mg/L	1.71	20.2	2.54	2.61	2.12
Potassium mg/L	5.9	9.2	4.83	7.7	5.2
Silicon mg/L	4.9	4.3	2	5.8	5.4
Phosphorous mg/L	0.02	0.03	< 0.01	0.04	0.05
Sodium mg/L	2.65	5.09	4.81	4.11	5.69
Sulfate mg/L	1230	1350	1110	1270	1170
Aluminum µg/L	53.9	6.33	50.6	53.6	153
Antimony µg/L	15.3	28.6	11.2	21.2	17
Arsenic µg/L	< 1	2	< 3	1	< 1
Barium µg/L	28.9	23.2	17.5	33.9	32.2
Beryllium µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bismuth µg/L	0.01	0.01	< 0.005	0.006	0.01
Cadmium µg/L	0.55	0.39	0.47	0.25	0.16
Cerium µg/L	0.01	0.02	0.02	0.01	0.02
Cesium µg/L	0.05	0.05	0.03	0.06	0.05
Chromium µg/L	42	20.8	17.4	19.3	27.7
Cobalt µg/L	1.02	1.29	1.04	1.16	0.98
Copper µg/L	10.2	15.6	14.4	6.2	9.6
Gallium µg/L	0.1	0.05	0.08	0.2	0.27
Germanium µg/L	0.06	0.1	0.05	0.05	0.04
Iron µg/L	< 50	< 50	< 50	< 50	< 50
Lanthanum µg/L	< 0.01	0.01	< 0.01	< 0.01	< 0.01
Lead µg/L	1.5	0.4	0.3	1.1	0.68
Lithium µg/L	6.4	11.2	6.9	7.4	7.8
Manganese µg/L	1.2	35.1	1.7	1.4	1
Mercury ng/L	nm	nm	8	nm	nm
Molybdenum µg/L	10.6	46.3	35.5	10.7	7.42
Nickel µg/L	22.2	25	21.9	24.6	24.8
Niobium µg/L	0.02	0.02	0.07	0.04	0.04
Rubidium µg/L	12.4	14.1	8.91	14.1	10

Scandium ⊠g/L	1.5	1.2	0.8	1.7	1.5
Selenium ⊠g/L	< 1	3	< 5	2.2	1.6
Silver ⊠g/L	< 3	< 3	nm	< 3	< 3
Strontium ⊠g/L	1060	999	1000	1020	943
Thallium ⊠g/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Thorium ⊠g/L	0.06	0.24	0.2	0.1	0.17
Titanium ⊠g/L	24.8	25.1	19.4	25.9	24
Uranium ⊠g/L	0.03	0.52	0.01	0.02	0.02
Vanadium ⊠g/L	6.6	6.5	2.7	8	5.5
Yttrium ⊠g/L	0.1	0.1	0.05	0.1	0.07
Zinc ⊠g/L	10.6	24.1	12.7	9.6	6.5
Zirconium ⊠g/L	0.2	0.2	0.09	0.2	0.2

nm - not measured; ppm - parts per million; mg/L - milligrams per liter; ⊠g/L - micrograms per liter; ng/L - nanograms per liter; mS/cm - milliSiemens per centimeter

Leach Table 1, continued

	Outdoor dust samples, continued				
	WTC-01-25	WTC-01-27	WTC-01-28	WTC-01-30	WTC-01-34
pH	9.37	10	9.93	9.63	9.8
Specific Conductance mS/cm	2.16	2.31	2.02	1.9	2.02
Chloride mg/L	37	52	12	nm	nm
Fluoride mg/L	<1.6	<1.6	<1.6	nm	nm
Nitrate mg/L	11	3	3.2	nm	nm
Calcium mg/L	558	568	553	461	524
Magnesium mg/L	6.15	2.01	2.85	5.27	3.2
Potassium mg/L	11.7	9.7	11.3	3.22	5.06
Silicon mg/L	8.1	7.2	8.6	5	4.2
Phosphorous mg/L	0.06	0.04	0.04	0.02	0.02
Sodium mg/L	12.9	12.7	5.57	4.28	2.76
Sulfate mg/L	1240	1240	1250	986	1180
Aluminum ⊠g/L	23.8	33.4	45	22.6	27.8
Antimony ⊠g/L	73.6	25.5	43.6	35.5	33.5
Arsenic ⊠g/L	3.2	3	2	< 3	< 3
Barium ⊠g/L	58.4	38.6	43.5	53.9	32.4

Beryllium µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bismuth µg/L	0.01	0.01	0.007	< 0.005	< 0.005
Cadmium µg/L	1.56	0.38	0.54	1.06	1.04
Cerium µg/L	0.02	0.02	0.02	0.02	0.02
Cesium µg/L	0.08	0.05	0.1	0.04	0.03
Chromium µg/L	24.4	15.7	34.5	26.1	16.2
Cobalt µg/L	3.18	1.17	1.25	0.72	0.87
Copper µg/L	39	21.5	9	14	10.6
Gallium µg/L	0.1	0.2	0.2	0.1	0.1
Germanium µg/L	0.2	0.05	0.08	0.09	0.08
Iron µg/L	< 50	< 50	< 50	< 50	< 50
Lanthanum µg/L	0.01	< 0.01	0.02	0.01	< 0.01
Lead µg/L	11.5	0.4	0.83	0.2	0.5
Lithium µg/L	29.7	24.3	11.2	9.6	7.9
Manganese µg/L	4.9	1	2	3.3	1.8
Mercury ng/L	nm	nm	nm	12	10
Molybdenum µg/L	140	126	50.4	30.6	27.9
Nickel µg/L	32.1	27	25.9	18.1	20.7
Niobium µg/L	0.03	0.06	0.03	0.07	0.06
Rubidium µg/L	19.3	14.9	25	9.26	10.8
Scandium µg/L	2.2	2.1	2.5	1.6	1.4
Selenium µg/L	7.4	8.8	3.5	< 5	< 5
Silver µg/L	< 3	< 3	< 3	nm	nm
Strontium µg/L	1240	1440	1160	1540	1070
Thallium µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Thorium µg/L	0.13	0.16	0.08	0.12	0.1
Titanium µg/L	25.5	25	26.3	16.5	18.9
Uranium µg/L	0.13	0.008	0.04	0.09	0.03
Vanadium µg/L	13.2	16.1	12.2	7.2	7
Yttrium µg/L	0.11	0.09	0.12	0.08	0.07

Zinc µg/L	11	8.4	12.1	5.3	12.2
Zirconium µg/L	0.2	0.2	0.2	0.2	0.1

nm - not measured; ppm - parts per million; mg/L - milligrams per liter; µg/L - micrograms per liter; ng/L - nanograms per liter; mS/cm - milliSiemens per centimeter

Leach Table 1, continued

	Indoor dust samples		Girder coatings		
	WTC-01-20	WTC-01-36	WTC-01-8	WTC-01-9	
pH	11.8	11.8	INS	10.8	
Specific Conductance mS/cm	3.41	3.4	INS	1.43	
Chloride mg/L	45	40	16	3	
Fluoride mg/L	<1.6	<1.6	<.8	<.8	
Nitrate mg/L	9.1	17	62	4.1	
Calcium mg/L	718	888	528	336	
Magnesium mg/L	0.11	0.08	10.3	1.1	
Potassium mg/L	10.9	12.3	3	1	
Silicon mg/L	3.4	3.2	6.7	11.3	
Phosphorous mg/L	0.09	0.09	< 0.01	< 0.01	
Sodium mg/L	15.3	18.3	2.1	1.54	
Sulfate mg/L	1320	1640	1090	674	
Aluminum µg/L	611	702	10.8	121	
Antimony µg/L	20.8	17.1	8.72	7.97	
Arsenic µg/L	3.3	3.3	< 3	< 3	
Barium µg/L	61.7	57.2	22.8	10.4	
Beryllium µg/L	< 0.05	< 0.05	< 0.05	< 0.05	
Bismuth µg/L	0.02	< 0.005	< 0.005	< 0.005	
Cadmium µg/L	0.18	0.18	0.02	0.02	
Cerium µg/L	< 0.01	0.01	0.26	0.4	
Cesium µg/L	0.09	0.08	0.02	< 0.01	
Chromium µg/L	69.4	109	18	408	
Cobalt µg/L	1.84	2.21	1.27	0.75	
Copper µg/L	15.1	33.6	5.6	3.5	
Gallium µg/L	0.59	0.97	0.08	0.38	
Germanium µg/L	0.05	0.07	0.1	< 0.02	

Iron µg/L	< 50	< 50	< 50	< 50	
Lanthanum µg/L	0.01	0.01	0.05	0.18	
Lead µg/L	5.8	10.9	0.4	0.3	
Lithium µg/L	18.5	19.5	1.3	0.3	
Manganese µg/L	1.3	1.7	5.5	2.1	
Mercury ng/L	130	125			
Molybdenum µg/L	73.8	72.9	1.74	1.18	
Nickel µg/L	36.2	42.6	24.9	16.6	
Niobium µg/L	0.08	0.05	0.08	< 0.02	
Rubidium µg/L	17.7	20.8	3.54	1.35	
Scandium µg/L	1.2	2.1	3.6	5.5	
Selenium µg/L	10.5	10.3	< 5	< 5	
Silver µg/L	< 3	< 3	< 3	< 3	
Strontium µg/L	1420	1690	990	758	
Thallium µg/L	0.08	< 0.05	< 0.05	< 0.05	
Thorium µg/L	0.51	0.38	0.52	0.18	
Titanium µg/L	25.5	28.4	24.9	15.3	
Uranium µg/L	0.01	< 0.005	0.02	0.006	
Vanadium µg/L	6.5	7.8	13.8	14.4	
Yttrium µg/L	0.13	0.16	0.31	0.27	
Zinc µg/L	28.4	61.8	20.1	15.8	
Zirconium µg/L	0.4	0.4	3.7	0.2	

nm - not measured; ppm - parts per million; mg/L - milligrams per liter; µg/L - micrograms per liter; ng/L - nanograms per liter; mS/cm - milliSiemens per centimeter

Leach Table 1, continued

	minimum	maximum	mean*		
pH	8.22	11.8	10.00		
Specific Conductance mS/cm	1.31	3.41	2.03		
Chloride mg/L	3	52	11.27		
Fluoride mg/L	<1.6	<1.6	***		
Nitrate mg/L	0.5	62	3.69		

Calcium mg/L	314	888	519.83		
Magnesium mg/L	0.08	20.2	2.27		
Potassium mg/L	1	12.3	6.03		
Silicon mg/L	2	11.3	5.43		
Phosphorous mg/L	0.02	0.1	0.04		
Sodium mg/L	1.54	18.3	5.16		
Sulfate mg/L	674	1640	1121.72		
Aluminum µg/L	6.33	702	49.68		
Antimony µg/L	7.97	73.6	24.37		
Arsenic µg/L	1	3.3	1.83		
Barium µg/L	10.4	61.7	33.90		
Beryllium µg/L	< 0.05	< 0.05	***		
Bismuth µg/L	0.006	0.02	0.01		
Cadmium µg/L	0.02	1.56	0.33		
Cerium µg/L	0.01	0.4	0.02		
Cesium µg/L	0.02	0.1	0.05		
Chromium µg/L	9	408	29.50		
Cobalt µg/L	0.72	3.18	1.17		
Copper µg/L	3.5	39	13.21		
Gallium µg/L	0.05	0.97	0.15		
Germanium µg/L	0.04	0.2	0.07		
Iron µg/L	<50	<50	***		
Lanthanum µg/L	0.01	0.18	0.02		
Lead µg/L	0.2	11.5	0.83		
Lithium µg/L	0.3	29.7	7.91		
Manganese µg/L	1	35.1	2.31		
Mercury ng/L	7	130	21.26		
Molybdenum µg/L	1.18	140	25.54		
Nickel µg/L	14.4	42.6	23.46		
Niobium µg/L	0.02	0.1	0.05		
Rubidium µg/L	1.35	25	11.02		
Scandium µg/L	0.8	5.5	1.82		

Selenium ▯g/L	1	10.5	3.58		
Silver ▯g/L	< 3	< 3	***		
Strontium ▯g/L	561	1690	1083.10		
Thallium ▯g/L	0.06	0.2	0.10		
Thorium ▯g/L	0.04	0.8	0.16		
Titanium ▯g/L	13.4	28.4	21.65		
Uranium ▯g/L	0.006	0.52	0.04		
Vanadium ▯g/L	2.7	16.1	8.24		
Yttrium ▯g/L	0.05	0.31	0.11		
Zinc ▯g/L	5.3	61.8	13.38		
Zirconium ▯g/L	0.07	3.7	0.22		
*Geometric mean for all parameters except pH; ***Geometric mean not calculated due to one or more samples having concentrations below detection limit; nm - not measured; ppm - parts per million; mg/L - milligrams per liter; ▯g/L - micrograms per liter;					
ng/L - nanograms per liter; mS/cm - milliSiemens per centimeter					

ins - insufficient leachate solution volume to measure pH and conductivity

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44 Annex H: Analysis records (strontium decay chain)

A few days after September 11 the USGS collected and analyzed dust samples from about 40 different locations.

- the analysis results prove a radioactive process of disintegration of strontium

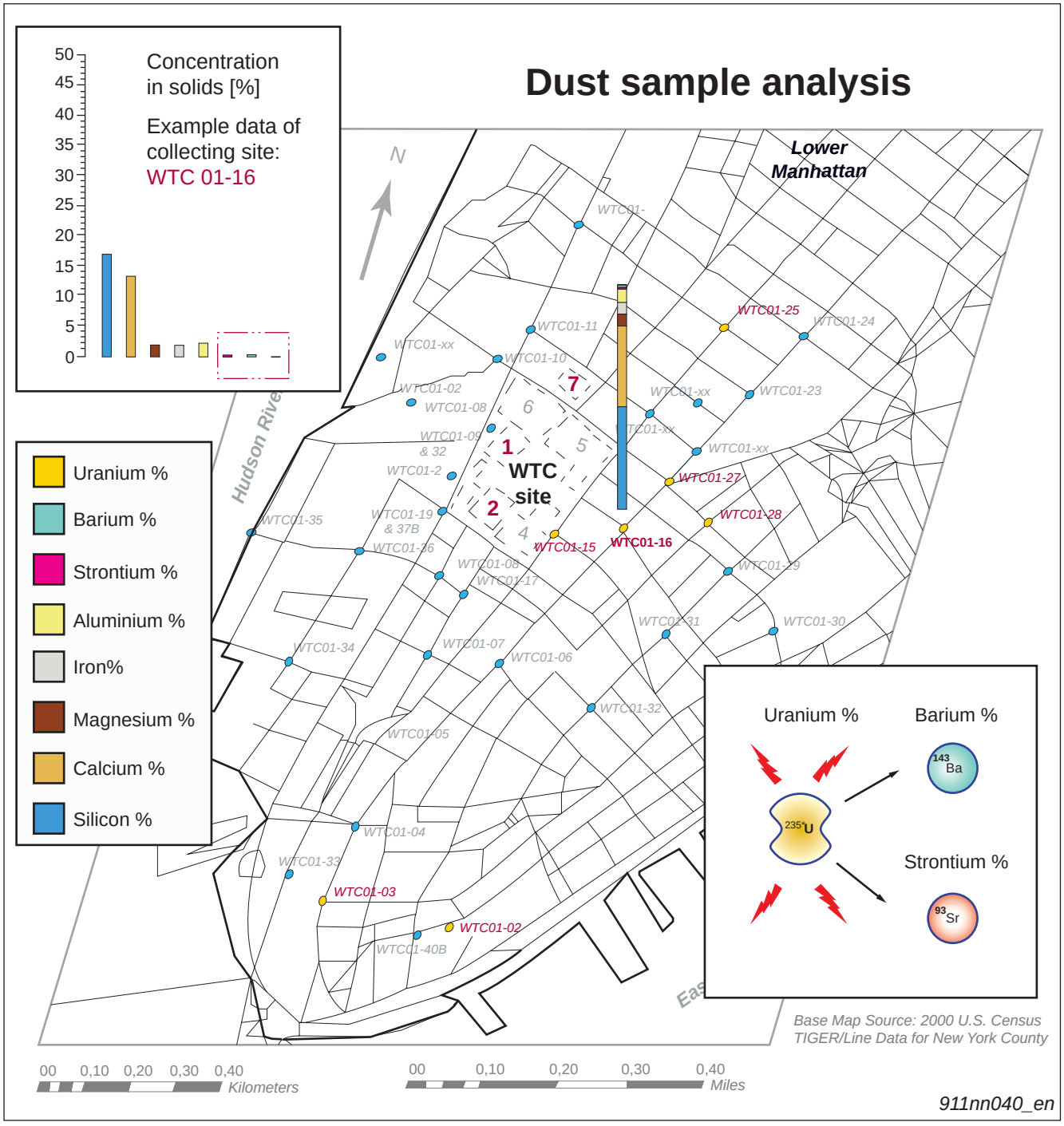

Fig. 44-1 *Source (edited): http://pubs.usgs.gov/of/2001/ofr-01-0429/chem1/index.html#Sampling*
DOWNLOAD *of the svg file www.911memorial4kids.org/svg/911nn040_xx.svg*

Strontium decay chain

Leach Table 1. Table summarizing analytical results for solutions leached from WTC dust and beam coating samples. Details of the leach test methods are summarized in the text.

Leach Table 1					
	Outdoor dust samples				
	WTC-01-2	WTC-01-3	WTC-01-05	WTC-01-06	WTC-01-14
pH	10.1	9.51	9.9	9.65	9.68
Specific Conductance mS/cm	1.58	1.31	1.9	2.01	2.03
Chloride mg/L	7.8	3.7	nm	nm	5.1
Fluoride mg/L	<.8	<.8	nm	nm	<1.6
Nitrate mg/L	1.5	0.5	nm	nm	1.4
Calcium mg/L	388	314	577	523	544
Magnesium mg/L	1.75	2.83	3.2	3.65	3.52
Potassium mg/L	6	3.8	7.71	6.33	6.9
Silicon mg/L	5.8	4.5	8.1	5.9	6.4
Phosphorous mg/L	0.05	0.1	0.04	0.03	0.05
Sodium mg/L	6.1	2.84	7.69	5.76	3.05
Sulfate mg/L	834	694	1210	1040	1250
Aluminum µg/L	111	44.6	24.3	26	30.3
Antimony µg/L	33.1	22.9	46.3	42	35.9
Arsenic µg/L	1	1	< 3	< 3	1
Barium µg/L	36.5	28.4	38.3	36	45.1
Beryllium µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bismuth µg/L	< 0.005	0.01	< 0.005	< 0.005	0.01
Cadmium µg/L	0.44	0.26	1.08	0.82	0.37
Cerium µg/L	< 0.01	0.03	0.02	0.02	0.01
Cesium µg/L	0.08	0.05	0.04	0.04	0.06
Chromium µg/L	25.9	9	25.1	18.2	31.4
Cobalt µg/L	1.23	0.72	1.04	1.02	1.15
Copper µg/L	19.2	19.8	22.4	13.5	11.4
Gallium µg/L	0.23	0.1	0.1	0.1	0.1

Germanium µg/L	0.07	0.09	0.1	0.08	0.07
Iron µg/L	< 50	< 50	< 50	< 50	< 50
Lanthanum µg/L	< 0.01	0.01	< 0.01	0.01	< 0.01
Lead µg/L	0.64	0.5	0.5	0.51	0.97
Lithium µg/L	11.2	4.1	11.2	9.4	9.8
Manganese µg/L	1	3.2	2	3.8	2.3
Mercury ng/L	nm	nm	18	7	nm
Molybdenum µg/L	56.8	14	45.7	42.2	30.8
Nickel µg/L	18.1	14.4	21.4	19.4	25.2
Niobium µg/L	< 0.02	0.03	0.1	0.1	0.02
Rubidium µg/L	12.6	8.08	12.4	12.9	14.1
Scandium µg/L	1.8	1.3	2.2	1.9	1.9
Selenium µg/L	2.5	1	< 5	< 5	1.9
Silver µg/L	< 3	< 3	nm	nm	< 3
Strontium µg/L	834	561	1150	1100	1230
Thallium µg/L	< 0.05	< 0.05	0.2	0.06	< 0.05
Thorium µg/L	0.04	0.09	0.8	0.37	0.06
Titanium µg/L	17.9	13.4	18.9	18.7	25.7
Uranium µg/L	0.03	0.15	0.08	0.09	0.06
Vanadium µg/L	6.2	6	11.8	8.8	9.7
Yttrium µg/L	< 0.01	< 0.01	0.08	0.08	0.11
Zinc µg/L	10.7	7.7	15.6	20.9	11.6
Zirconium µg/L	0.07	0.1	0.5	0.3	0.08

nm - not measured; ppm - parts per million; mg/L - milligrams per liter; µg/L - micrograms per liter; ng/L - nanograms per liter; mS/cm - milliSiemens per centimeter

Leach Table 1, continued

	Outdoor dust samples, continued				
	WTC-01-15	WTC-01-16	WTC-01-17	WTC-01-21	WTC-01-22
pH	10	8.22	9.47	9.98	10.4
Specific Conductance mS/cm	2.01	2.08	1.96	2.02	2.02
Chloride mg/L	3.4	8.5	nm	7.8	8.1

Fluoride mg/L	<1.6	<1.6	nm	<1.6	<1.6
Nitrate mg/L	1.5	<1.6	nm	2.4	1.5
Calcium mg/L	528	526	517	549	529
Magnesium mg/L	1.71	20.2	2.54	2.61	2.12
Potassium mg/L	5.9	9.2	4.83	7.7	5.2
Silicon mg/L	4.9	4.3	2	5.8	5.4
Phosphorous mg/L	0.02	0.03	< 0.01	0.04	0.05
Sodium mg/L	2.65	5.09	4.81	4.11	5.69
Sulfate mg/L	1230	1350	1110	1270	1170
Aluminum µg/L	53.9	6.33	50.6	53.6	153
Antimony µg/L	15.3	28.6	11.2	21.2	17
Arsenic µg/L	< 1	2	< 3	1	< 1
Barium µg/L	28.9	23.2	17.5	33.9	32.2
Beryllium µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bismuth µg/L	0.01	0.01	< 0.005	0.006	0.01
Cadmium µg/L	0.55	0.39	0.47	0.25	0.16
Cerium µg/L	0.01	0.02	0.02	0.01	0.02
Cesium µg/L	0.05	0.05	0.03	0.06	0.05
Chromium µg/L	42	20.8	17.4	19.3	27.7
Cobalt µg/L	1.02	1.29	1.04	1.16	0.98
Copper µg/L	10.2	15.6	14.4	6.2	9.6
Gallium µg/L	0.1	0.05	0.08	0.2	0.27
Germanium µg/L	0.06	0.1	0.05	0.05	0.04
Iron µg/L	< 50	< 50	< 50	< 50	< 50
Lanthanum µg/L	< 0.01	0.01	< 0.01	< 0.01	< 0.01
Lead µg/L	1.5	0.4	0.3	1.1	0.68
Lithium µg/L	6.4	11.2	6.9	7.4	7.8
Manganese µg/L	1.2	35.1	1.7	1.4	1
Mercury ng/L	nm	nm	8	nm	nm
Molybdenum µg/L	10.6	46.3	35.5	10.7	7.42
Nickel µg/L	22.2	25	21.9	24.6	24.8
Niobium µg/L	0.02	0.02	0.07	0.04	0.04
Rubidium µg/L	12.4	14.1	8.91	14.1	10

Scandium µg/L	1.5	1.2	0.8	1.7	1.5
Selenium µg/L	< 1	3	< 5	2.2	1.6
Silver µg/L	< 3	< 3	nm	< 3	< 3
Strontium µg/L	1060	999	1000	1020	943
Thallium µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Thorium µg/L	0.06	0.24	0.2	0.1	0.17
Titanium µg/L	24.8	25.1	19.4	25.9	24
Uranium µg/L	0.03	0.52	0.01	0.02	0.02
Vanadium µg/L	6.6	6.5	2.7	8	5.5
Yttrium µg/L	0.1	0.1	0.05	0.1	0.07
Zinc µg/L	10.6	24.1	12.7	9.6	6.5
Zirconium µg/L	0.2	0.2	0.09	0.2	0.2

nm - not measured; ppm - parts per million; mg/L - milligrams per liter; µg/L - micrograms per liter; ng/L - nanograms per liter; mS/cm - milliSiemens per centimeter

Leach Table 1, continued

	Outdoor dust samples, continued				
	WTC-01-25	WTC-01-27	WTC-01-28	WTC-01-30	WTC-01-34
pH	9.37	10	9.93	9.63	9.8
Specific Conductance mS/cm	2.16	2.31	2.02	1.9	2.02
Chloride mg/L	37	52	12	nm	nm
Fluoride mg/L	<1.6	<1.6	<1.6	nm	nm
Nitrate mg/L	11	3	3.2	nm	nm
Calcium mg/L	558	568	553	461	524
Magnesium mg/L	6.15	2.01	2.85	5.27	3.2
Potassium mg/L	11.7	9.7	11.3	3.22	5.06
Silicon mg/L	8.1	7.2	8.6	5	4.2
Phosphorous mg/L	0.06	0.04	0.04	0.02	0.02
Sodium mg/L	12.9	12.7	5.57	4.28	2.76
Sulfate mg/L	1240	1240	1250	986	1180
Aluminum µg/L	23.8	33.4	45	22.6	27.8
Antimony µg/L	73.6	25.5	43.6	35.5	33.5
Arsenic µg/L	3.2	3	2	< 3	< 3
Barium µg/L	58.4	38.6	43.5	53.9	32.4

Beryllium µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bismuth µg/L	0.01	0.01	0.007	< 0.005	< 0.005
Cadmium µg/L	1.56	0.38	0.54	1.06	1.04
Cerium µg/L	0.02	0.02	0.02	0.02	0.02
Cesium µg/L	0.08	0.05	0.1	0.04	0.03
Chromium µg/L	24.4	15.7	34.5	26.1	16.2
Cobalt µg/L	3.18	1.17	1.25	0.72	0.87
Copper µg/L	39	21.5	9	14	10.6
Gallium µg/L	0.1	0.2	0.2	0.1	0.1
Germanium µg/L	0.2	0.05	0.08	0.09	0.08
Iron µg/L	< 50	< 50	< 50	< 50	< 50
Lanthanum µg/L	0.01	< 0.01	0.02	0.01	< 0.01
Lead µg/L	11.5	0.4	0.83	0.2	0.5
Lithium µg/L	29.7	24.3	11.2	9.6	7.9
Manganese µg/L	4.9	1	2	3.3	1.8
Mercury ng/L	nm	nm	nm	12	10
Molybdenum µg/L	140	126	50.4	30.6	27.9
Nickel µg/L	32.1	27	25.9	18.1	20.7
Niobium µg/L	0.03	0.06	0.03	0.07	0.06
Rubidium µg/L	19.3	14.9	25	9.26	10.8
Scandium µg/L	2.2	2.1	2.5	1.6	1.4
Selenium µg/L	7.4	8.8	3.5	< 5	< 5
Silver µg/L	< 3	< 3	< 3	nm	nm
Strontium µg/L	1240	1440	1160	1540	1070
Thallium µg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Thorium µg/L	0.13	0.16	0.08	0.12	0.1
Titanium µg/L	25.5	25	26.3	16.5	18.9
Uranium µg/L	0.13	0.008	0.04	0.09	0.03
Vanadium µg/L	13.2	16.1	12.2	7.2	7
Yttrium µg/L	0.11	0.09	0.12	0.08	0.07

Zinc µg/L	11	8.4	12.1	5.3	12.2
Zirconium µg/L	0.2	0.2	0.2	0.2	0.1

nm - not measured; ppm - parts per million; mg/L - milligrams per liter; µg/L - micrograms per liter; ng/L - nanograms per liter; mS/cm - milliSiemens per centimeter

Leach Table 1, continued

	Indoor dust samples		Girder coatings		
	WTC-01-20	WTC-01-36	WTC-01-8	WTC-01-9	
pH	11.8	11.8	INS	10.8	
Specific Conductance mS/cm	3.41	3.4	INS	1.43	
Chloride mg/L	45	40	16	3	
Fluoride mg/L	<1.6	<1.6	<.8	<.8	
Nitrate mg/L	9.1	17	62	4.1	
Calcium mg/L	718	888	528	336	
Magnesium mg/L	0.11	0.08	10.3	1.1	
Potassium mg/L	10.9	12.3	3	1	
Silicon mg/L	3.4	3.2	6.7	11.3	
Phosphorous mg/L	0.09	0.09	< 0.01	< 0.01	
Sodium mg/L	15.3	18.3	2.1	1.54	
Sulfate mg/L	1320	1640	1090	674	
Aluminum µg/L	611	702	10.8	121	
Antimony µg/L	20.8	17.1	8.72	7.97	
Arsenic µg/L	3.3	3.3	< 3	< 3	
Barium µg/L	61.7	57.2	22.8	10.4	
Beryllium µg/L	< 0.05	< 0.05	< 0.05	< 0.05	
Bismuth µg/L	0.02	< 0.005	< 0.005	< 0.005	
Cadmium µg/L	0.18	0.18	0.02	0.02	
Cerium µg/L	< 0.01	0.01	0.26	0.4	
Cesium µg/L	0.09	0.08	0.02	< 0.01	
Chromium µg/L	69.4	109	18	408	
Cobalt µg/L	1.84	2.21	1.27	0.75	
Copper µg/L	15.1	33.6	5.6	3.5	
Gallium µg/L	0.59	0.97	0.08	0.38	
Germanium µg/L	0.05	0.07	0.1	< 0.02	

Iron µg/L	< 50	< 50	< 50	< 50	
Lanthanum µg/L	0.01	0.01	0.05	0.18	
Lead µg/L	5.8	10.9	0.4	0.3	
Lithium µg/L	18.5	19.5	1.3	0.3	
Manganese µg/L	1.3	1.7	5.5	2.1	
Mercury ng/L	130	125			
Molybdenum µg/L	73.8	72.9	1.74	1.18	
Nickel µg/L	36.2	42.6	24.9	16.6	
Niobium µg/L	0.08	0.05	0.08	< 0.02	
Rubidium µg/L	17.7	20.8	3.54	1.35	
Scandium µg/L	1.2	2.1	3.6	5.5	
Selenium µg/L	10.5	10.3	< 5	< 5	
Silver µg/L	< 3	< 3	< 3	< 3	
Strontium µg/L	1420	1690	990	758	
Thallium µg/L	0.08	< 0.05	< 0.05	< 0.05	
Thorium µg/L	0.51	0.38	0.52	0.18	
Titanium µg/L	25.5	28.4	24.9	15.3	
Uranium µg/L	0.01	< 0.005	0.02	0.006	
Vanadium µg/L	6.5	7.8	13.8	14.4	
Yttrium µg/L	0.13	0.16	0.31	0.27	
Zinc µg/L	28.4	61.8	20.1	15.8	
Zirconium µg/L	0.4	0.4	3.7	0.2	

nm - not measured; ppm - parts per million; mg/L - milligrams per liter; µg/L - micrograms per liter; ng/L - nanograms per liter; mS/cm - milliSiemens per centimeter

Leach Table 1, continued

	minimum	maximum	mean*		
pH	8.22	11.8	10.00		
Specific Conductance mS/cm	1.31	3.41	2.03		
Chloride mg/L	3	52	11.27		
Fluoride mg/L	<1.6	<1.6	***		
Nitrate mg/L	0.5	62	3.69		

Calcium mg/L	314	888	519.83		
Magnesium mg/L	0.08	20.2	2.27		
Potassium mg/L	1	12.3	6.03		
Silicon mg/L	2	11.3	5.43		
Phosphorous mg/L	0.02	0.1	0.04		
Sodium mg/L	1.54	18.3	5.16		
Sulfate mg/L	674	1640	1121.72		
Aluminum µg/L	6.33	702	49.68		
Antimony µg/L	7.97	73.6	24.37		
Arsenic µg/L	1	3.3	1.83		
Barium µg/L	10.4	61.7	33.90		
Beryllium µg/L	< 0.05	< 0.05	***		
Bismuth µg/L	0.006	0.02	0.01		
Cadmium µg/L	0.02	1.56	0.33		
Cerium µg/L	0.01	0.4	0.02		
Cesium µg/L	0.02	0.1	0.05		
Chromium µg/L	9	408	29.50		
Cobalt µg/L	0.72	3.18	1.17		
Copper µg/L	3.5	39	13.21		
Gallium µg/L	0.05	0.97	0.15		
Germanium µg/L	0.04	0.2	0.07		
Iron µg/L	<50	<50	***		
Lanthanum µg/L	0.01	0.18	0.02		
Lead µg/L	0.2	11.5	0.83		
Lithium µg/L	0.3	29.7	7.91		
Manganese µg/L	1	35.1	2.31		
Mercury ng/L	7	130	21.26		
Molybdenum µg/L	1.18	140	25.54		
Nickel µg/L	14.4	42.6	23.46		
Niobium µg/L	0.02	0.1	0.05		
Rubidium µg/L	1.35	25	11.02		
Scandium µg/L	0.8	5.5	1.82		

Selenium ▯g/L	1	10.5	3.58		
Silver ▯g/L	< 3	< 3	***		
Strontium ▯g/L	561	1690	1083.10		
Thallium ▯g/L	0.06	0.2	0.10		
Thorium ▯g/L	0.04	0.8	0.16		
Titanium ▯g/L	13.4	28.4	21.65		
Uranium ▯g/L	0.006	0.52	0.04		
Vanadium ▯g/L	2.7	16.1	8.24		
Yttrium ▯g/L	0.05	0.31	0.11		
Zinc ▯g/L	5.3	61.8	13.38		
Zirconium ▯g/L	0.07	3.7	0.22		
*Geometric mean for all parameters except pH; ***Geometric mean not calculated due to one or more samples having concentrations below detection limit; nm - not measured; ppm - parts per million; mg/L - milligrams per liter; ▯g/L - micrograms per liter;					
ng/L - nanograms per liter; mS/cm - milliSiemens per centimeter					

ins - insufficient leachate solution volume to measure pH and conductivity

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Back to Leach Results

Back to document Table of Contents

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45 Annex I: Ground Zero

The term "Ground Zero" is – by old definition – the place and height of a nuclear weapon detonation.

Material ejection pattern of a shallow underground nuclear explosion

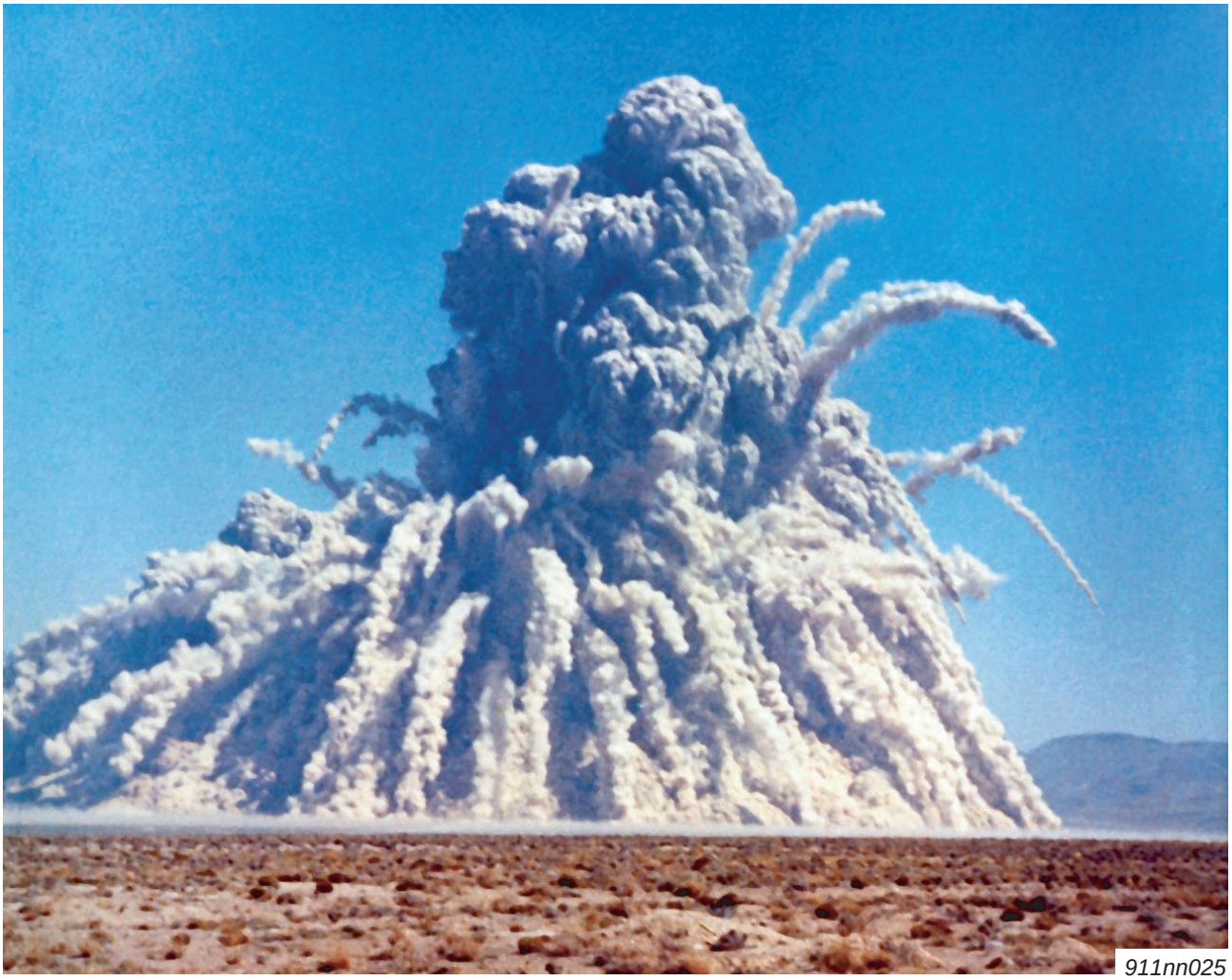


Fig. 45-1 Source: http://en.wikipedia.org/wiki/Sedan_%28nuclear_test%29

LOCAL VIDEO: **Ground Zero of underground explosion "STORAX SEDAN"**

www.911memorial4kids.org/videos/SEDAN_EVENT.mp4

Source: https://www.youtube.com/watch?v=ssLZ4bUTDYM

LOCAL VIDEO: **Ground zero of explosion "Operation Upshot-Knothole"**

www.911memorial4kids.org/videos/STORAX_SEDAN_1962_operation_plowshare.mp4

Source @09:17 – 10:00: http://www.youtube.com/watch?v=r9UwBOhyJSI

Ground Zero in New York, material ejection behavior North Tower – for comparison

Fig. 45-2 Source: http://911research.com/wtc/evidence/photos/wtc1exp10.html

Regular covering of Ground Zero with sand and removal after a few days

Fig. 45-3 Source: https://www.facebook.com/911nucleardemolition/photos_stream?tab=photos_stream

46 Annex J: Ground Zero – New York

New York authorities are prepared for an attack with radioactivity from the ground at anytime, the so-called expected “terror attack” (dirty bomb attack).

Police Commissioner Raymond W. Kelly

“... we also must be prepared to interdict a nuclear or radioactive device should one come our way.”

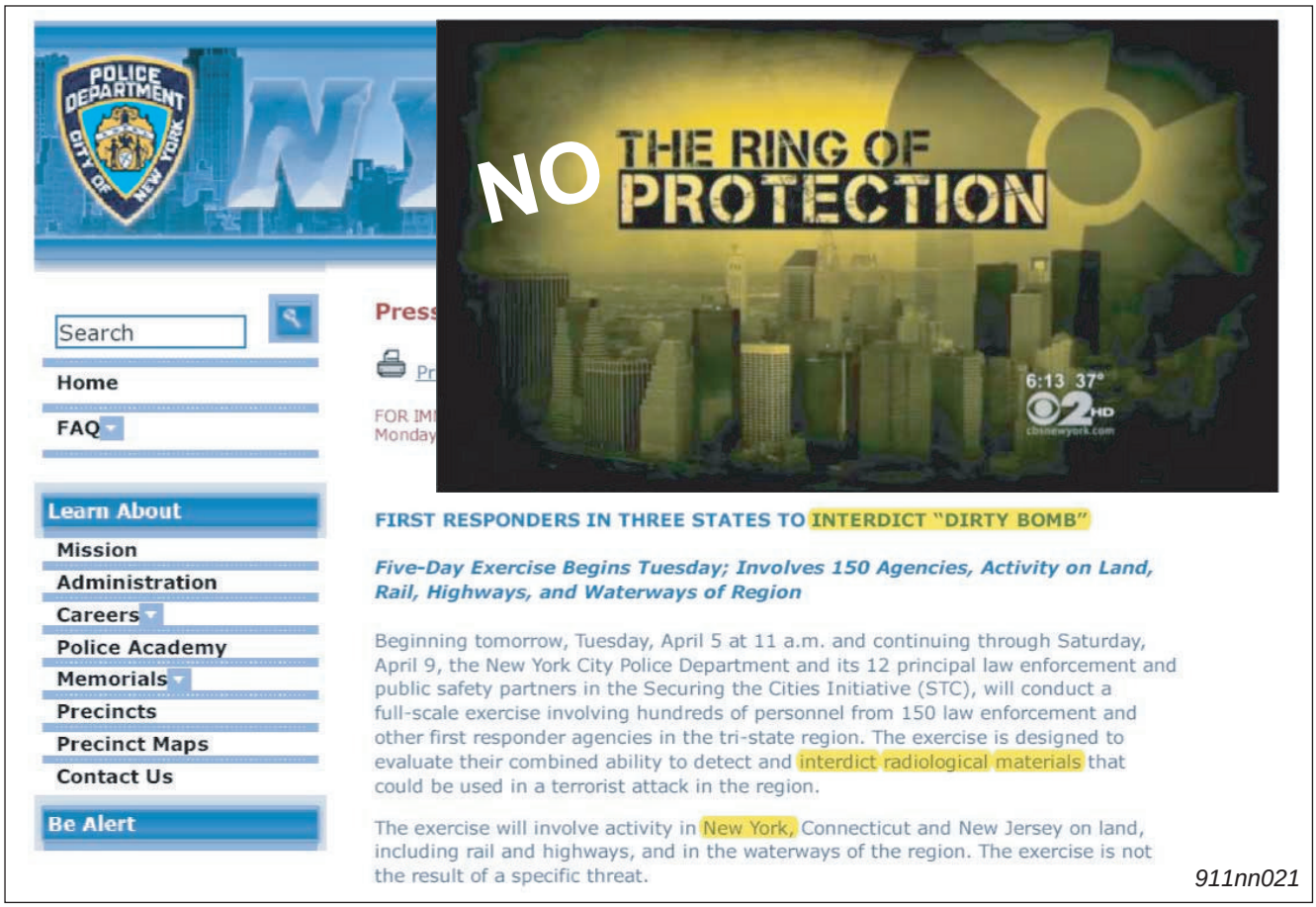


Fig. 46-1 Source: http://www.nyc.gov/html/nypd/html/pr/pr_2011_stc_exercise_april_5_2011.shtml

Dr. David Brenner, Columbia Center for radiological research

“It’s more a question of ‘when’ than ‘whether’ we’ll have one.”

LOCAL VIDEO [@00:27]: **more the question of “when” than “whether”**

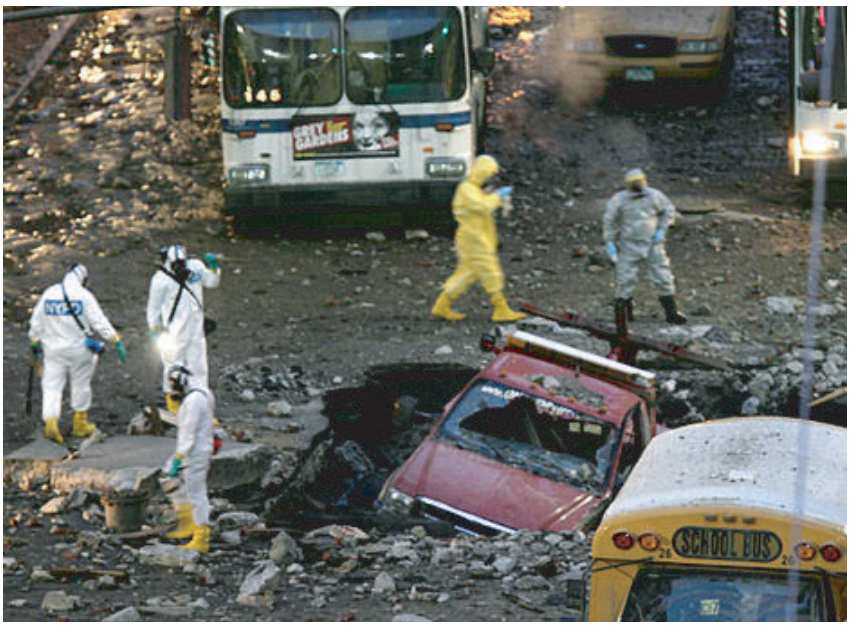
www.911memorial4kids.org/videos/Foreknowledge_NYC_dirty_bomb_to_come.mp4

Source: http://newyork.cbslocal.com/2013/02/05/seen-at-11-nycs-ring-of-protection-tools-in-the-fight-against-dirty-bombs/

Example 1: Reaction of public authorities in 2007

Full protective suit against radioactive radiation – for a defective steam pipe

The investigators of a defective steam pipe explosion in 2007 in New York City first rushed wearing full protective clothing against radioactive radiation.



911nn092

Fig. 46-2 Source: http://www.dailymail.co.uk/news/article-469413/

Example 2: FEMA report 1997 / cancer victim

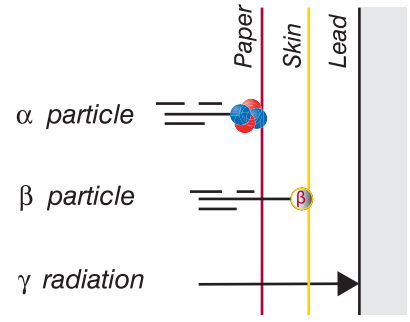
The FEMA report issued in August 1997 already pointed out that the WTC might be the target of potential attacks.

It also warns of the consequences of highly carcinogenic radioactive radiation.

FEMA report,
august 1997

Estimated number of unreported cases: www.presstv.com

Of the 70,000 victims, over 90% say they were exposed within a one-square-mile area



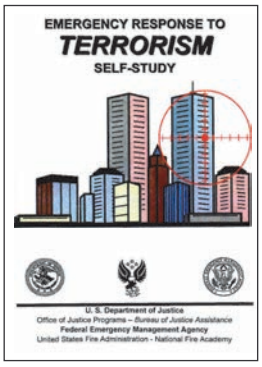


Fig. 46-3 Source (page 11 / page 15; FEMA): https://www.ncjrs.gov/pdffiles1/Photocopy/189722NCJRS.pdf

In fact, most of the first responders on duty at the World Trade Center have fallen ill. Hundreds have died of cancer.

Original title: "Nine years after 9/11, 900 responders are dead."

https://www.youtube.com/watch?v=hhVQ5lbzwCQ

http://www.presstv.com/detail/2014/04/21/359423/nuke-cancer-from-911-revealed/

47 Annex K: Study on supercritical reactors (Borax II)

In the US, a number of reactors were run supercritically and blown up deliberately for test purposes, the emerging radioactive fallout was downplayed.

Borax test series

Test reactor Borax II in supercritical condition – prior to the intended explosion.

911nn045

Fig. 47-1 Source (page 19; http://www.ne.anl.gov/): Story-of-BORAX-Reactor-by-Ray-Haroldsen-v2.pdf
Local copy: http://www.911memorial4kids.org/pdfs/Story-of-BORAX-Reactor-by-Ray-Haroldsen-v2.pdf

Test reactor Borax II during the explosion

After the neutron rods had been catapulted out of the fuel elements, the whole apparatus exploded as expected.

Fig. 47-2 Source (page 29; http://www.ne.anl.gov/): Story-of-BORAX-Reactor-by-Ray-Haroldsen-v2.pdf
Local copy: http://www.911memorial4kids.org/pdfs/Story-of-BORAX-Reactor-by-Ray-Haroldsen-v2.pdf

LOCAL VIDEO: **Explosion of a supercritical test reactor**

www.911memorial4kids.org/videos/BORAX_destructive_test.mp4

Source: http://www.youtube.com/watch?v=8WfNzJVxVz4

This book suggests the model of a nuclear weapon that was buried underground. This weapon emits a non-recurring radiation pulse.

An alternative analysis assumes that a small research reactor had already been installed in the foundation of each tower when the WTC was being built.

Highly critical reactors would be able to produce multiple radiation pulses.

This analysis is available under:

http://www.nucleardemolition.com/files/Download/GZero_Report0.pdf

48 Annex L: 'The 9/11 commission report'

The research report of the American government is available under:

http://www.9-11commission.gov/report/911Report.pdf

Quotes referring to the research report:

English

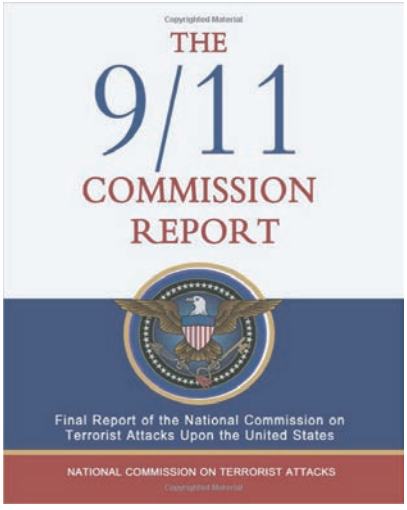
"The 9/11 Commission Report: A 571 Page Lie"

http://www.globalresearch.ca/the-9-11-commission-report-a-571-page-lie/907

English

"The official cover story for 9/11 is a hoax, a myth, a fraud, and a lie that has been disproven many times over. In fact it is a deliberate insult to our intelligence."

http://911nwo.com/



Signaturen

Thomas H. Kean	Lee H. Hamilton
Richard Ben-Veniste	Bob Kerrey
Fred F. Fielding	John F. Lehman
James S. Gorelick	Timothy J. Roemer
Slade Gorton	James R. Thompson

Fig. 48-1 Source (cover): http://www.amazon.com/911-Commission-Report
Source (signatures): http://www.9-11commission.gov/report/911Report.pdf

Man in charge for the 9/11 Commission report

- Philip Zelikow; 'Executive Director' of the commission report
  http://en.wikipedia.org/wiki/Philip_Zelikow

Persons responsible for the management of the WTC complex on 9/11

- Larry Silverstein

  On July 24, 2001, Silverstein signed a 99-year lease contract for the entire WTC complex.

  He obtained more than $4,5 billion of damage compensation
  http://en.wikipedia.org/wiki/Larry_Silverstein

- Frank Lowy

  Lowy leased the 'Mall at the World Trade Center' with Silverstein
  http://en.wikipedia.org/wiki/Frank_Lowy

- Lewis Eisenberg
  Eisenberg, chairman of the 'Port Authority of New York' authorized the lease of the WTC complex to Larry Silverstein und Frank Lowy
  http://en.wikipedia.org/wiki/Lewis_M._Eisenberg

- Ronald Lauder
  Played an important role in enabling the privatization of WTC complex
  http://en.wikipedia.org/wiki/Ronald_Lauder

World Trade Center complex safety officers on 9/11

The 'Port Authority of New York' paid $2.5 million to put the company 'Kroll Associates' in charge of security at the WTC complex.

- Jules Kroll
  Associate of the security firm
  http://en.wikipedia.org/wiki/Jules_B._Kroll

- Jeremy Kroll
  Associate of the security firm
  https://wikispooks.com/wiki/9-11/Israel_did_it

- Jerome M. Hauer
  Director of the security firm at the time of the attacks
  http://en.wikipedia.org/wiki/Jerome_Hauer

Co-participants of the cover-up

- Alvin Hellerstein
  Judge at the 'U.S. District Court N.Y.'
  http://en.wikipedia.org/wiki/Alvin_Hellerstein

- Michael B Mukasey
  Judge in the litigation between Silverstein and the insurance company
  http://en.wikipedia.org/wiki/Michael_Mukasey

- Michael Chertoff; 'Criminal Division of the Justice Department on 9/11'
  Obtained the verdict of not guilty for the Mossad agents who had filmed the destruction of the WTC
  http://en.wikipedia.org/wiki/Michael_Chertoff

- Stephen Cauffman
  'NIST investigations', systematic cover-up of the destruction of WTC 7
  http://www.nist.gov/el/building_materials/scauffman.cfm

49 Annex M: 'Rebuilding America's Defenses'

The document "Rebuilding America's Defenses: Strategy, Forces and Resources for a New Century" is available under:

http://www.informationclearinghouse.info/pdf/RebuildingAmericasDefenses.pdf

Dov Zakheim (PDF: page 51)

"Further, the process of transformation, even if it brings revolutionary change, is likely to be a long one, absent some catastrophic and catalyzing event – like a new Pearl Harbor."

George W. Bush, September 11, 2001

"The Pearl Harbor of the 21st century took place today."

https://wikispooks.com/wiki/Document:Bush_Cheney_Rumsfeld_and_9/11

George W. Bush, September 20, 2001

"Every nation, in every region, now has a decision to make. Either you are with us, or you are with the terrorists."

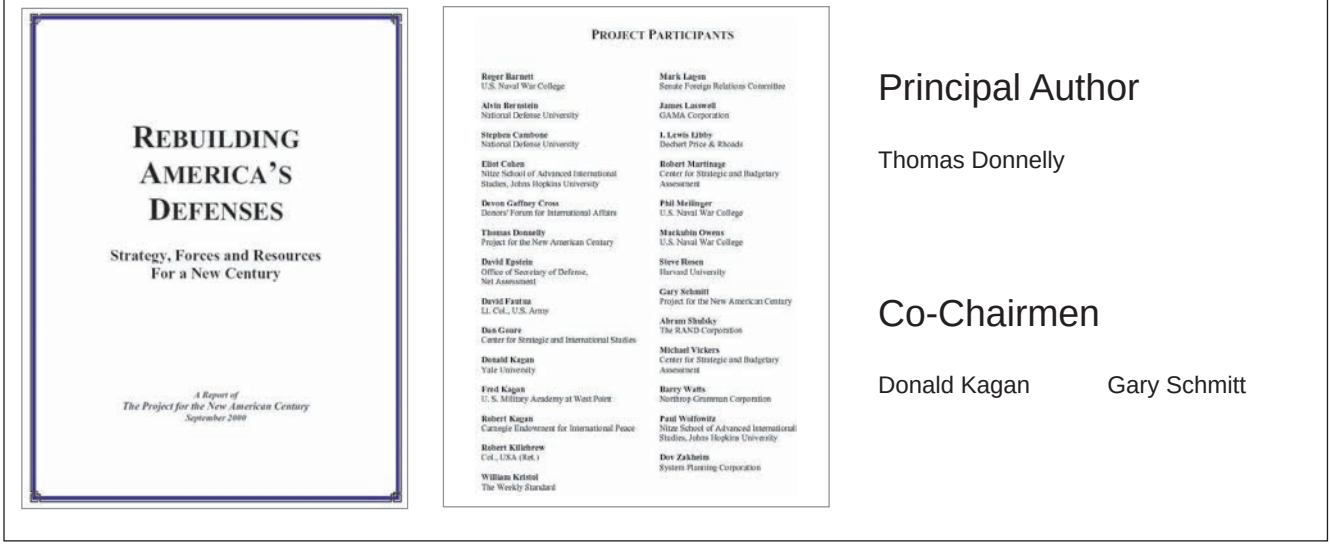


Fig. 49-1 Source (cover / signatures): http://www.informationclearinghouse.info/pdf/RebuildingAmericasDefenses.pdf

Leo Strauss (1899 – 1973)

> “Those who are fit to rule are those who realize there is no morality and that there is only one natural right , the right of the superior to rule over the inferior.”

Students studying under Leo Strauss:

- Paul Wolfowitz
  2001: ’United States Deputy Secretary of Defense’
  http://en.wikipedia.org/wiki/Paul_Wolfowitz
- Richard Perle
  ’Chairman of the Defense Policy Board Advisory Committee’
  http://en.wikipedia.org/wiki/Richard_Perle

People involved with 9/11 and the subject ‘The Project for the New American Century’

- Eliot Abrams

  ’Key National Security Council Advisor’; key figure in the Iran-Contra affair
  http://en.wikipedia.org/wiki/Elliott_Abrams
- Ari Fleischer

  ’White House spokesman’ for W. Bush on 9/11; advocate of an aggressive strategy against Iraq due to [non-existent] weapons of mass destruction.
  http://en.wikipedia.org/wiki/Ari_Fleischer
- Douglas Feith

  Founder of the ’Office of Special Plans’ – creation of "evidence" against Irak
  http://en.wikipedia.org/wiki/Douglas_J._Feith
- David Frum

  Speechwriter for W. Bush, created the expression "Axis of Evil”
  http://en.wikipedia.org/wiki/David_Frum
- Jack Abramoff

  Owner of the casino yacht where the “assasins” were regular guests
  http://en.wikipedia.org/wiki/Jack_Abramoff
  https://wikispooks.com/wiki/9-11/Israel_did_it
- Charles Krauthammer

  Author and member of the ’Project for the New American Century’
  http://en.wikipedia.org/wiki/Charles_Krauthammer

> “We will support democracy everywhere, but we will commit blood and treasure only in places where there is a strategic necessity – meaning, places central to the larger war against the existential enemy, the enemy that poses a global mortal threat to freedom.”

50 Annex N: CIA

Susan Lindauer (whistleblower)

Before 9/11 former CIA employee Susan Lindauer was involved in the peace contract negotiations with representatives of the Iraq government.

In late summer of 2001 she got a personal warning by her superior Richard Fuisz: an urgent recommendation not to travel to New York because an attack with a thermonuclear weapon was expected.

Excerpt from a speech held by Susan Lindauer – warnings of Richard Fuisz

US Englisch

"Do not go back to New York City. It's too dangerous.

We are expecting the use of a miniature thermonuclear device.

And they were not afraid that I was going to be hurt by [by] falling debris in the World Trade Center. I wasn't going to be in the World Trade Center.

They were afraid of radiation contamination. "

In 2005 Susan Lindauer was arrested under reference to the PATRIOT ACT.

She was released after one year after being ruled "mentally unfit" to stand the trial.

For details see: http://en.wikipedia.org/wiki/Susan_Lindauer

LOCAL VIDEO: **expected use of miniature thermonuclear weapons in New York**

www.911memorial4kids.org/videos/Foreknowledge_CIA_Susan_Lindauer.mp4

Source @25:30: http://www.youtube.com/watch?v=68LUHa_-OIA

Fig. 50-1 Source: http://en.wikipedia.org/wiki/Central_Intelligence_Agency

QUOTES ON THE TOPIC GOVERNMENTAL INFORMATION / DISINFORMATION

John Stockwell, former CIA associate and author

US Englisch

"It is the function of the CIA to keep the world unstable, and to propagandize and teach the American people to hate, so we will let the Establishment spend any amount of money on arms."

William Casey, CIA director (1981)

US Englisch

"We'll know our disinformation program is complete when everything American public believes is false."

Thomas Jefferson (1743 – 1826; third president of the US)

US Englisch

"Educate and inform the whole mass of people... They are the only sure reliance for the preservation of our liberty."

Fig. 1-9 Source: http://www.911dude.com/pictures/GJS-WTC056.jpg

EPILOGUE: the impossible facts

At a first glance the assumption of a nuclear destruction of the World Trade Center seems to be absurd, especially when knowing about the disastrous long term implications for New York City and the total absence of information in the media in respect to this topic.

A sound and simple physical model can be formulated only after reading the results of the USGS dust sample analysis as well as understanding the existing "nuclear fingerprint" – combined with the knowledge of formation of stable iron isotopes.

The book's aim is not to speculate about political, military or financial backgrounds which led to the nuclear destruction of the World Trade Center.

The reader himself will start on his own with an expedition in order to uncover the [still hidden] power structures: he will look for the solution himself and demand it.

From this standpoint 9/11 becomes – as Ken O'Keefe accurately pointed out – a gift, a revelation, by which the citizen, if he is only ready to take this responsibility, can free himself and start a journey to finally expose a parallel world of ruthless and profoundly unethical doings.

9/11: was it not what it looked like?

Why did a huge mushroom cloud rise from the foundation of the destroyed third tower?

Fig. 1-10 Solving The Mystery of World Trade Center 7; Published for information and education under terms of FAIR USE

About the book

The aim of the book is to provide a satisfactory explanation of the WTC's "mysterious" destruction process by means of a simple model.

It is in fact possible to draft a model that provides a plausible explanation for all of the phenomena observed: a controlled underground detonation of a nuclear explosive charge.

This theory is supported by the official analysis results of the WTC fine particulate matter which show explicit radioactive disintegration processes of rare elements, the so-called "nuclear fingerprint".

ISBN: pending