Forensic Architecture

Kassel_6.April.2006:
A counter investigation into the murder of Halit Yozgat

Preliminary results (in abbreviated form)

31. March. 2016

1. Introduction

On the 6th of April 2006, Halit Yozgat, 21 years old, was murdered while attending the reception desk of the Internet café owned by his father, İsmail Yozgat, in Kassel, Germany. The murder was later attributed to a neo-Nazi group referred to as the National Socialist Underground (NSU). At the time of the killing a secret service agent of the *State Office for Constitutional Protection*, (Landesamt für Verfassungsschutz) of the German state of Hessen named Andreas Temme (AT) was present in the café. In his interrogation by the police and in the subsequent NSU trial in Munich, AT denied being a witness to the incident. The court found that AT was present at the back room of the Internet café at the time of the murder, and that from his position it was possible not to have witnessed the killing.

In November 2016 Forensic Architecture was commissioned by the organizers of the People's Tribunal 'Unravelling the NSU Complex' to investigate this aspect of the case.

In order to undertake its analysis Forensic Architecture constructed a life-size model of the Internet café and undertook a full re-enactment of the incident. This took place at the House of World Cultures/HKW in Berlin between the 6th and 11th of March 2017.

The main question that this experiment came to address was: did Andreas Temme tell the truth about the incident? Could he have witnessed the murder?

Witnessing in this context refers to a sensory contact with the incident: more precisely, the questions where: could AT have heard the gunshots from his position in the back room, could he have seen the body as he left the café through the front room, and should he have smelled the residue of gun powder lingering in that room.

There are several other questions arising from these: did the police, the court and AT's employers at the *State Office for Constitutional Protection* act in good faith when accepting his testimony, and if not, why?

Based upon an examination of leaked police files, interviews with witnesses, spatial, aural and olfactory re-enactments and simulations, the project thus set out to examine not only the killing but also its possible cover-up and the protection of Temme from within the *State Office for Constitutional Protection* as a crime in its own right.

2. Methodology

We began by examining all available records — police reports and records that included a police re-enactment video, photographs from the crime scene, computer and telephone logs — as well as plans, aerial and ground level images, written and spoken testimonies. We examined transcripts of AT's testimony in court. We have conducted our own measurements on site and interviewed witnesses.

We have thereafter plotted several possible scenarios on multiple timelines, identifying key characters, spaces, objects, and time frames. Within the physical model we have re-enacted a number of different scenarios in order to determine the feasibility and plausibility of these timelines.

We also undertook **three sensory tests**, on which this brief preliminary report will concentrate:

2a. Vision

The body of Halit Yozgat was first discovered by his father, İsmail Yozgat, as he returned to the café a few minutes after the murder. The father described the body of Halit as lying face down behind the reception desk. He produced a number of sketches (including some at the request of Forensic Architecture) depicting the body's position. AT testified that he did not see the body when bending over to place a coin on the reception desk before leaving the café. AT performed a re-enactment at the request of the Hessen State Police to support his testimony. A video of this re-enactment was ultimately leaked and made public online. Aided by motion detection software and analogue measures we examined and modelled this re-enactment video to establish the precise positions and movements of AT's body and especially of his head. We have thus recreated AT's moving field of vision digitally within a computer model and with cameras (Go-Pro and digital camera using 33mm lens) attached to the head of an actor in a re-enactment within the life-size model. We therefore set out to investigate whether, even by AT's own account, witnessing would be possible.

2b. Sound

The judges at the NSU Trial in Munich accepted that AT had been at the back room of the café, at a position known as PC-2, while the killing took place in the front room. As part of his testimony AT, a trained marksman, claimed that he did not hear the two gunshots that killed Halit Yozgat.

Forensic Architecture contracted with a specialist weapon analysts, Armament Research Services (ARES), to record the sound signature of the weapon and

ammunition used in the murder, a Česká CZ 83 pistol using 7.65mm Browning ammunition and a sound suppressor.

ARES sourced a Česká CZ 83 pistol and recorded 5 shots. They have verified that its sound signature and audio level were similar to another handgun of similar calibre — a Colt .32 pistol — using similar munitions. Both weapons offered equivalent peak sound signatures, all ranging from 157 to 158.5dBA.

The Colt .32 pistol was then alternately threaded with a dry and a wet sound suppressors and 5 shots were fired through each. None of these shots were suppressed below 130dBA.

Using both a digital simulation and real-size re-enactment, Forensic Architecture working with a consultant from Anderson Acoustics, tested the audibility of these shots from AT's position at PC-2.

For this purpose, Forensic Architecture acquired a high-decibel active loudspeaker and located it at the position of the killer. We played the recorded gunshots sent by ARES within real size space and in the computer model. We produced the level of the gunshots at 105dBA, some 25dBA lower than the sound of the shot. This was done under the assumption that if a shot at this level would have been heard, a louder shot certainly could.

2c. Smell

A gunshot in an interior space leaves a sharp smell of burnt gunpowder. Questioned by the German Federal Police in 2012 AT confirmed he was used to handling guns and could identify the smell of gunpowder. He however claimed that he sensed no such smell when moving from the backroom of the café through the front room towards the outside.

Forensic Architecture is working with a fluid dynamics specialist, Dr. Salvador Navarro-Martinez, Senior Lecturer at Imperial College, in order to calculate the dispersion and propagation of chemical components from the gunshots, in space and time. We used smoke dispersers in a quantity derived from a calculation, undertaken by Dr. Navarro-Martinez of the volume of gases expected to be produced by such gunshots in order to visualize the dissipation and latency of smell within space. Digital and analogue simulations are also being used to model the fluid dynamics of 'smell clouds' in space and time. The findings from these tests are being corroborated with a digital simulation that models the particle concentration and therefore the perceptibility of the smell of gunpowder. We are also measuring the latency and potency of smell in relation to the timeline offered by witness testimonies and the police re-enactment.

3. Initial Results

3a. Vision

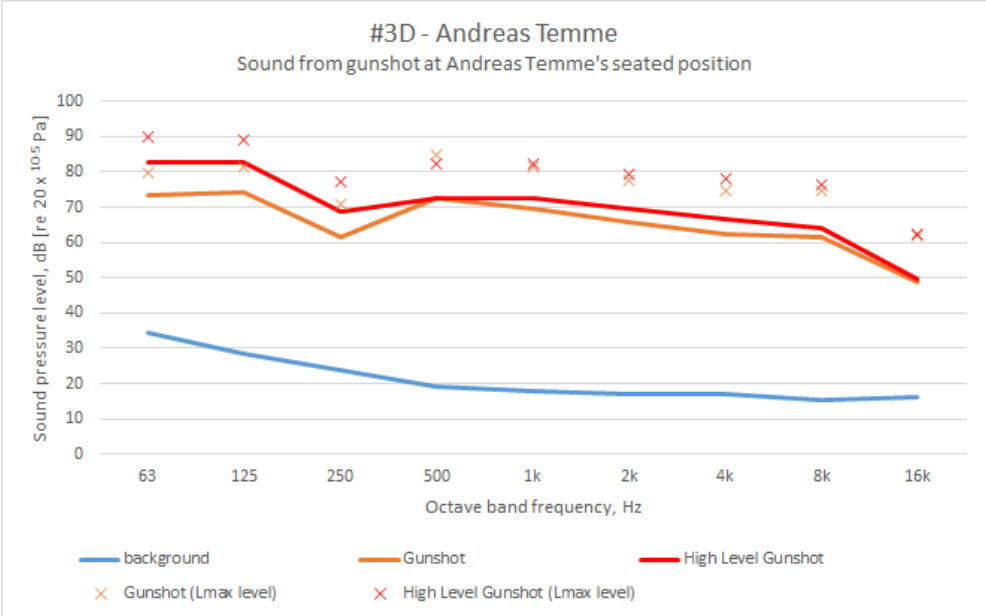
The reconstruction of AT's moving field of vision establishes that the body of Halit Yozgat would have been visible to AT at the time he pauses to place the coins on the reception desk.

3b. Sound

At the life size model, at AT's seated position in PC-2 the gunshot sound level was 86dBA at maximum level, some 40dBA above the ambient sound level in the room and therefore audible. 86dB is the equivalent noise of a freight train at 15 meters away. This level of noise should be clearly audible over ambient of 40dBA, typical of living rooms, libraries or small water streams.

In order to confirm that any additional sound paths present in the physical model would not significantly affect measured results and corroborate our findings, we are creating a computer simulation, using ray tracing digital techniques.

Considering there is an open pathway for noise through the open doorway between the two rooms in the café, it can determined that the gunshot was audible from the position of AT.



The above graph shows the measured sound levels at AT's position by PC-2 (red and orange) as well as the measured background level of noise in the space (blue). The gunshot should have been clearly audible.

3c Smell

The results of the olfactory experiment are still pending.