

## E84 Geolocating and Protecting the Grave Sites of the Disappeared in Lebanon

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**Learning Overview:** The goal of this presentation is to show how the Act for the Disappeared (ACT) started to document the fate of the missing of Lebanon, three decades after the end of the civil war. Attendees will be exposed to the methodology behind a preliminary open-source data gathering (newspapers, images, videos, official reports), the interviewing of direct sources (former fighters, witnesses, and survivors), and the crosschecking of different sources. This resulted in an investigative tool formed by a comprehensive database with interactive mapping that updates in real time as the data is modified. ACT will also share the necessary measures that it took to protect the sensitive findings, as well as a number of gravesites that were deemed at imminent risk.

**Impact on the Forensic Science Community:** This presentation will impact the forensic science community by outlining how a local initiative led a serious citizen's-based investigation, after it became clear that successive governments were not prepared to undertake any meaningful action that would address the issue of the forcibly disappeared in Lebanon. ACT defied the odds that are defined by decades of post-conflict passivity resulting in data loss and grave site destruction and started collecting all remaining evidence. The methodology and the data management tools were developed with the support of the Argentine Forensic Anthropology Team (EAAF) and the International Committee of the Red Cross (ICRC), which in turn provided training on the scientific investigation of cases of political violence and the storing and archiving of sensitive confidential data.

ACT is a Lebanese human rights association founded in 2010 whose mission is to contribute to the clarification of the fate of the forcibly disappeared and missing of the Lebanese civil war. Approximately 17,415 persons went missing during this 15-year long conflict (1975–1990— as recognized by the Lebanese government. To this day, thousands of families are still waiting for information on the fate of their loved ones. In 2015, to complement the ICRC project of Ante-Disappearance Data (ADD) collection that started in 2012, and the Biological Reference Samples (BRS) collection that started in 2015, ACT started the collection of background information together with the mapping and the protection of grave sites. This work resulted in an investigative tool based on a comprehensive database with interactive mapping that updates in real time as the data is modified. The tool is built on Node.js and MongoDB following The Open Web Application Security Project (OWASP) security standards. The categories of the data include the missing person's case, checkpoints, detention centers, events related to cases of disappearances, potential grave sites, armed groups, contacts, and sources. The gravesites are ranked by three indices: risk of destruction, credibility of the information, and sensitivity of the site. Converging all these variables allows the filling of gaps and the association between previously unassociated cases of disappearances. Crosschecking such derived hypotheses with the ICRC's ADD and the postmortem examination results would increase the strength of the evidence and, therefore, facilitate identification. ACT also continues to works on the protection of potential gravesites to avoid their destruction.

Missing Persons, GIS Mapping, Grave Sites

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