# Counter-Militarisation Mapping

Reframing Conflict in Sudan through Civic Visual Tools

## Introduction

\*Counter-Militarisation Mapping Project\*, a digital counter-mapping initiative that challenges state and media narratives of the Sudan conflict by recentering civilian-led humanitarian efforts. Combining participatory action research with critical cartography, the project employs an open-source, interactive web map to document Emergency Response Rooms (ERRs) and hospitals in Khartoum, transforming quantitative data into a spatial narrative of solidarity

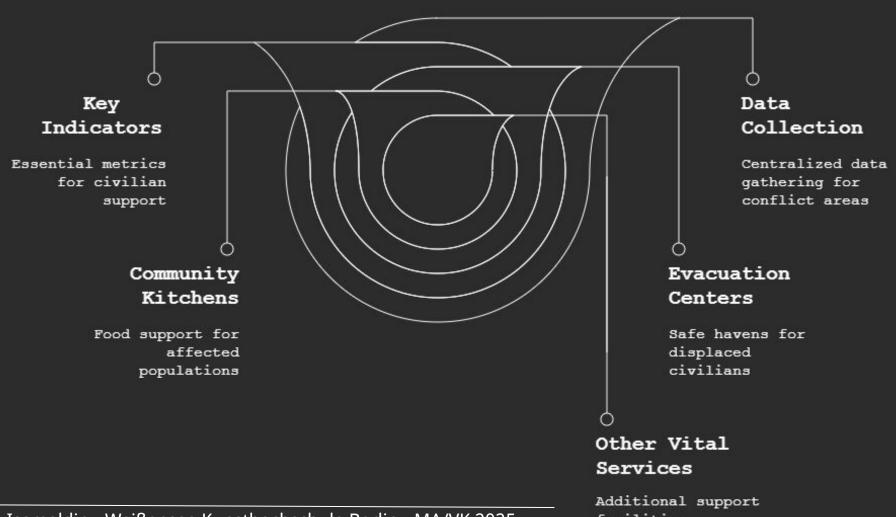
## Research Question

What does it mean to map conflict through a civilian lens? How can visual cartography support resistance and survival?

### Goals

- Amplifies efforts of Emergency Response Rooms
- Offers real-time data visibility to citizens and allies
- Resists erasure through accessible digital archiving

# Telling Data - Stories of Every Day



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3	2.1	Ganoub AlHizam	Jabel Awlia ▼		15.476114, 32.555711	RSF ▼	جنوب الحزام	The district of Jabel Awlia consists of 16 administrative units. Jabel Awlia ERR works through re Jabel Awlia ERR has two public hospitals and 10 base ERRs divided into three Sectors: Janob A
4	2.2	AlKalakla	Jabel Awlia ▼		15.464800, 32.488175	RSF ▼	الكلاكلة	The district of Jabel Awlia consists of 16 administrative units. Jabel Awlia ERR works through r Jabel Awlia ERR has two public hospitals and 10 base ERRs divided into three Sectors: Janob A
5	2.3	Al Jabal	Jabel Awlia ▼		15.241385, 32.517260	RSF ▼	الجبل	The district of Jabel Awlia consists of 16 administrative units. Jabel Awlia ERR works through r Jabel Awlia ERR has two public hospitals and 10 base ERRs divided into three Sectors: Janob A
6	3.1	AlThawra East	Karari ▼		15.719244, 32.495682	SAF ▼	الثورة شرق	The district of Karari consists of 12 administrative units. Karari ERR works through one central Karari ERR has one central room with 10 base rooms, 2 major hospitals and 3 rural hospitals.
7	3.2	AlThawra West	Karari ▼		15.704206, 32.448132	SAF ▼	الثورة غرب	The district of Karari consists of 12 administrative units. Karari ERR works through one central Karari ERR has one central room with 10 base rooms, 2 major hospitals and 3 rural hospitals.
8	3.3	Karrari East	Karari ▼		16.094994, 32.519649	SAF ▼	کرري شرف	The district of Karari consists of 12 administrative units. Karari ERR works through one central Karari ERR has one central room with 10 base rooms, 2 major hospitals and 3 rural hospitals.
9	3.4	Karrari Middle	Karari ▼		16.123361, 32.390216	SAF ▼	کرري وسط	The district of Karari consists of 12 administrative units. Karari ERR works through one central Karari ERR has one central room with 10 base rooms, 2 major hospitals and 3 rural hospitals.
0	3.5	Karrari North	Karari 🔻		16.293474, 32.460941	SAF 🔻	کرري شمال	The district of Karari consists of 12 administrative units. Karari ERR works through one central Karari ERR has one central room with 10 base rooms, 2 major hospitals and 3 rural hospitals.
1	3.6	Karrari West	Karari 🔻		16.135399, 32.120708	SAF ▼	کرري غرب	The district of Karari consists of 12 administrative units. Karari ERR works through one central Karari ERR has one central room with 10 base rooms, 2 major hospitals and 3 rural hospitals.
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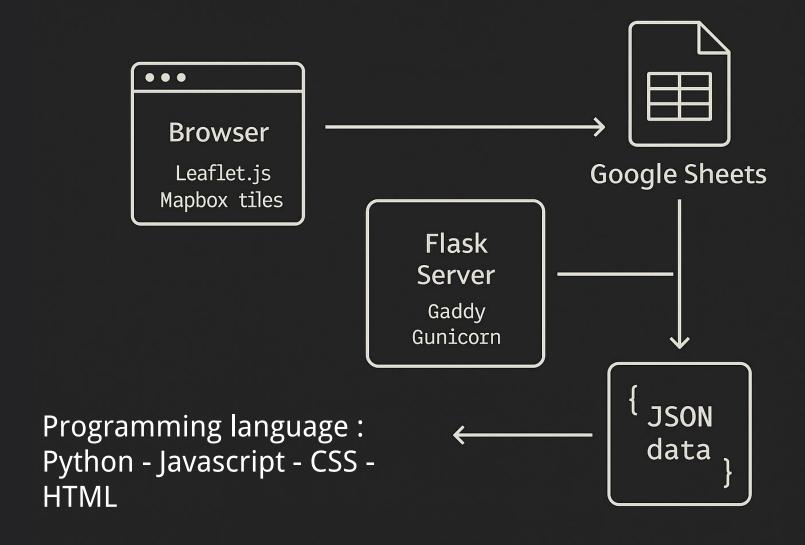
Karari

Karari 💌

# Data Pipeline (Python)

- Google Sheets as dynamic database
- Python (Flask + Google API) fetches hospital + ERR layers
- Exports structured JSON to be used by Leaflet frontend

## Technical Architecture



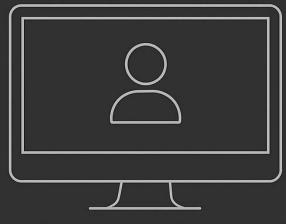
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["BaseERR":[{"ArabicName":"\u0627\u0631\u0643\u0643\u0643\u064a\u062a \u0648\u0648\u0627\u0644\u0645\u0639\u0648\u0631\u0669","Discription":"The district of Khartoum Locality consists of 15 administrative units. facilitated by the Khartoum State Emergency Response Room (ERR) and executed by Khartoum ERR. Khartoum ERR has 10 active ERRs organized by administrative units the ERRs are :\nJreif West ERR, Jabra ERR, Buri ERR, Tutti ERR, Arkaweet ERR, Al-Taif ERR, Al-Mamoura ERR, Al-Diyum ERR, and Al-Azuzab ERR, and Soba ERR and they coordinate through the following offices: health, services, food, women response room, census and media. However, due to escalating security challenges, some ERRs ceased operations, while others are currently undergoing reorganization. Notably remained operational during the reported period: Arkaweet & Almaoura, AlTaif, Al Shagara, Jabra, and West Jiraif. The continued dedication of these ERRs underscores their resilience in delivering aid amid evolving circumstance","ServedPopulation":"6360","baseerr":"Arkaweet and AlMamora","childrencenters":"1","clinics":"2","controlledby<sup>"</sup>:"RSF","district":"Khartoum","evacuationcenters":"0","geolocation":"15.544777, 32.572209","hosptials":"0","kitchens":"8","no":"1.1","photos":"https://i.ibb.co/tJTTf9d/Arkaweet.jpg","pots":"6","region":"Arkaweet ',"rooms":"2","volunteers":"50","womencoops":"15","womenrestrooms":"3"},{"ArabicName":"\u0627\u0644\u0637\u0637\u0638 \u0648 \u0627\u0644\u0637\u0627\u0027\ district of Khartoum Locality consists of 15 administrative units. facilitated by the Khartoum State Emergency Response Room (ERR) and executed by Khartoum ERR. 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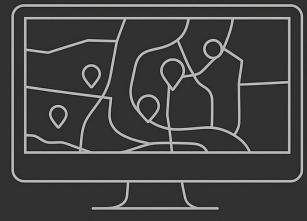
Buri ERR, Tutti ERR, Arkaweet ERR, Al-Taif ERR, Al-Mamoura ERR, Al-Diyum ERR, and Al-Azuzab ERR, and Soba ERR and they coordinate through the following offices: health, services, food, women response room, census and media. However, due to escalating security challenges, some ERRs ceased operations, while others are currently undergoing reorganization. Notably remained operational during the reported period: Arkaweet & Almaoura, AlTaif, Al Shapara, Jahra, and West limit, The continued dedication of these ERRs underscores their resilience in delivering

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    "baseerr": "AlTaif and Riyad",
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# Storyboard



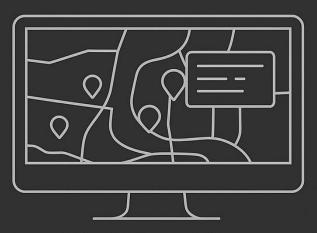
User loads the page



Map is displayed on the screen



User clicks on a marker



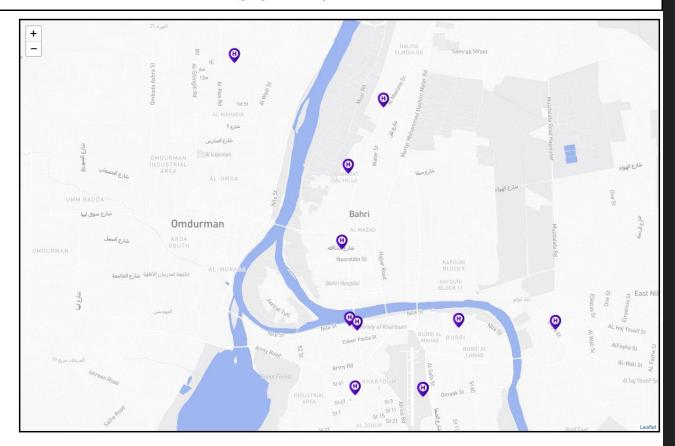
Popup with information appears

# First Try

#### خريطة السودان المدنية SUDAN CIVIC MAP

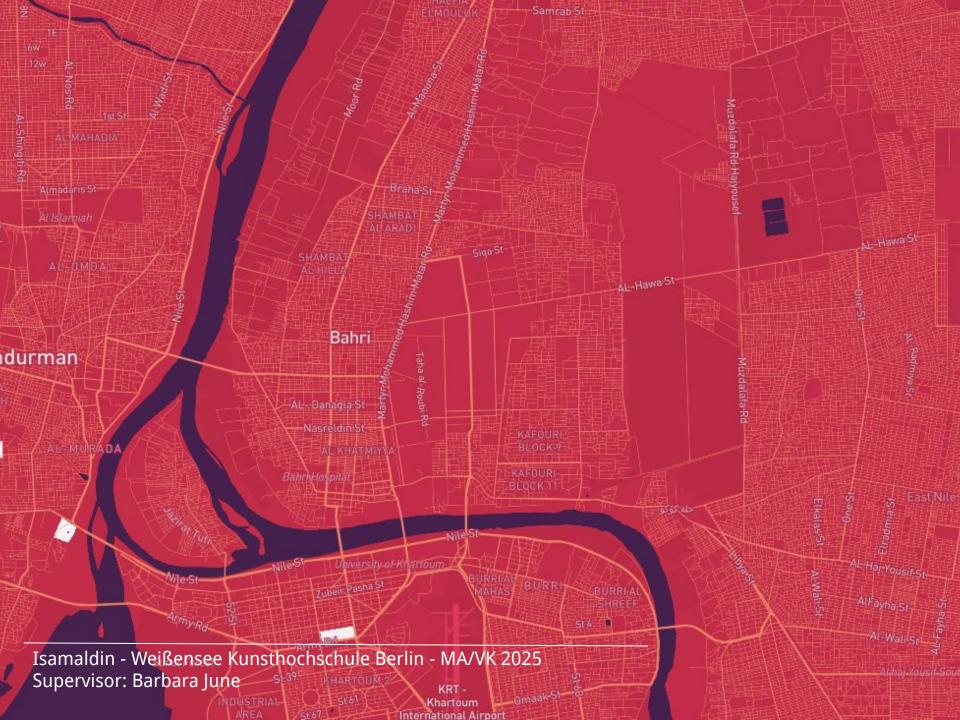
#### مستشفيات HOSPITALS

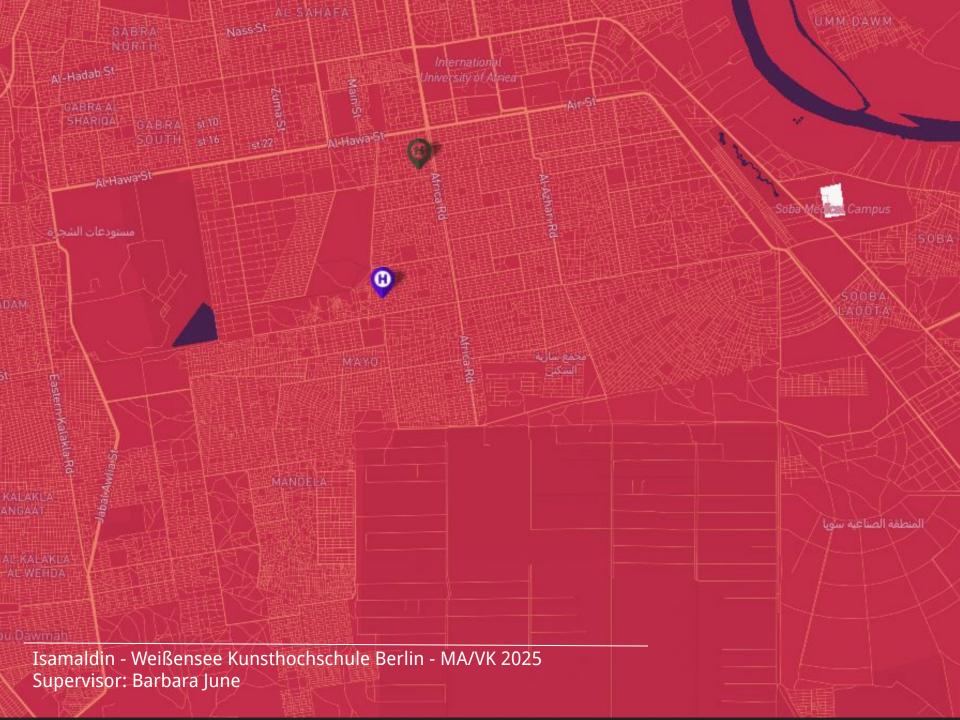
غرف طوارئ SAFE ROUTES ممرات امنة RISKY ZONES مناطق خطرة STORIES



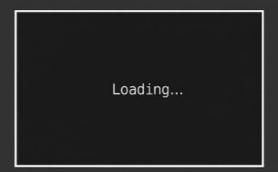
# Color Palette







#### Landing on the Map



Leaflet.js

#### Interface Reveal



Leflet.js, Mapbox tiles

#### Activating ERR Layer



Google Sheets → Flask → JSON

#### Inspecting an ERR



Inspecting an ERR Droid Sans

Playing a Story

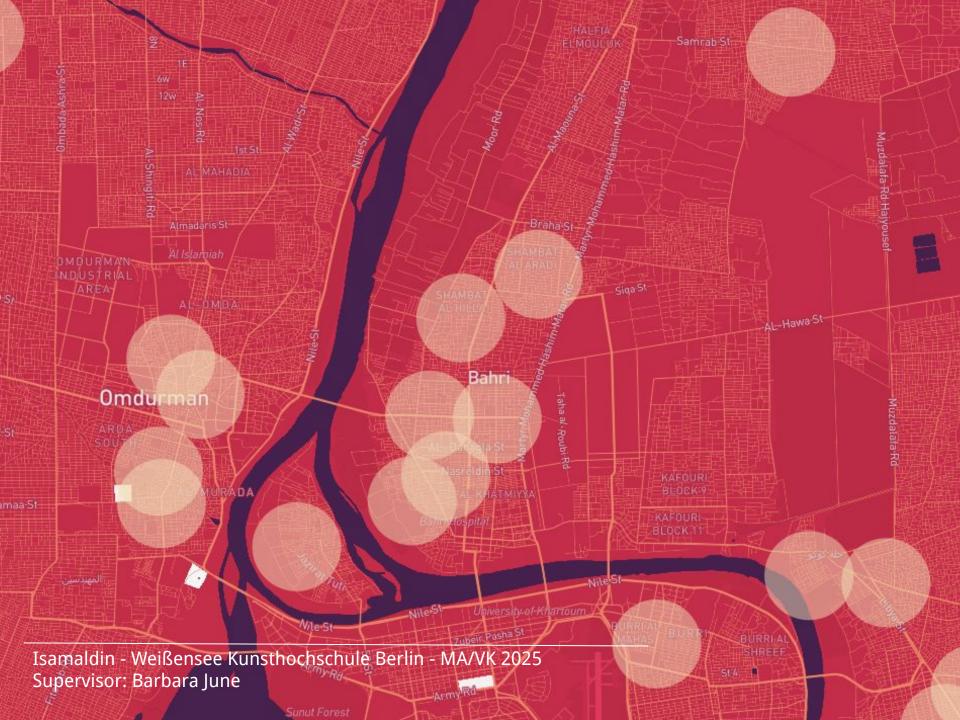


Embedded video (via Leaflet popup)

Mobile View/Responsiveness



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## Khartoum Civic Map

# خريطة الخرطوم المدنية Khartoum CIVIC MAP

## Challenges & Future

- Mobile-first optimization
- Conflict heat map layers
- Anonymous story integration
- Academic and policy collaboration



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