

“COUNTING STONES, SILENCING VOICES”: EPISTEMIC INJUSTICE AND WITNESSING UNDER OCCUPATION IN THE DOCUMENTATION OF PALESTINIAN STRUCTURE DEMOLITIONS (2004–2023)

Anonymous authors

Paper under double-blind review

ABSTRACT

This study examines the documentation of Palestinian structure demolitions from 2004 to 2023 through the theoretical lenses of epistemic injustice and moral witnessing. The systematic demolition of over 9,000 structures represents both material destruction and symbolic erasure of Palestinian presence in occupied territories, transforming data collection into a practice of digital testimony that contests official narratives. The complexity of this issue arises from asymmetric information environments where state authorities employ bureaucratic language to depoliticize demolitions while non-governmental organizations use moral framing to re-humanize affected communities, creating competing truth claims where Palestinian testimonies face systematic credibility deficits. **To address these complexities with methodological rigor, we employ a mixed-methods concurrent triangulation design that integrates quantitative trend analysis of 9,473 demolition records with a systematic qualitative thematic analysis of 120 documentation texts. The quantitative component extends beyond descriptive statistics to include inferential analysis of temporal trends and spatial clustering, while the qualitative component incorporates inter-coder reliability procedures and a detailed codebook to ensure analytical dependability.** Analytic credibility is ensured through methodological triangulation, combining statistical evidence with narrative fragments. The inclusion of verified coordinates, photographic evidence, and external validation mechanisms in the dataset construction fosters epistemic trust, demonstrating how humanitarian data practices can serve as resistance against structural silencing mechanisms. **This study advances existing scholarship by operationalizing the theoretical link between data collection practices and epistemic resistance in conflict settings through empirically grounded mixed-methods evidence.**

1 INTRODUCTION

Since 2004, over 9,000 Palestinian structures have been demolished by Israeli authorities, justified on grounds such as lack of permits or security needs ?. These demolitions represent both material destruction and symbolic erasure of Palestinian presence in occupied territories. The act of documenting these events has evolved into a form of digital testimony that contests official narratives, transforming data collection into a practice of moral witnessing ?. This study examines the period from 2004 to 2023 to understand how documentation practices construct credibility and address epistemic injustice in contexts of asymmetric power. **The selected timeframe captures significant shifts in documentation technologies and humanitarian response protocols, allowing for the analysis of both continuity and change in witnessing practices over two decades of ongoing occupation.**

The issue is complex due to historical, social, and international dimensions. The documentation of demolitions occurs within asymmetric information environments where state authorities employ bureaucratic language to depoliticize events while non-governmental organizations use moral framing to re-humanize affected communities ?. This creates competing truth claims where Palestinian testimonies face systematic credibility deficits, a phenomenon identified as epistemic injustice ?. The tension between different institutional narratives reflects broader conflicts over land, sovereignty,

and recognition that are embedded in decades of geopolitical struggle. This study contributes to this contested field by moving beyond theoretical assertion to empirically examine how specific documentation mechanisms—including verification protocols, spatial data integration, and narrative framing—function as responses to testimonial injustice.

This study employs a mixed-methods concurrent triangulation design to analyze 9,473 demolition records alongside thematic interpretation of documentation discourse. The methodological approach was developed to address limitations in prior studies that treat quantitative and qualitative evidence separately ?. Specifically, we implement an integrated analysis where quantitative patterns inform qualitative sampling and qualitative themes provide context for interpreting statistical associations. Quantitative trend analysis examines temporal and spatial patterns of demolitions, while qualitative coding identifies themes in how these events are communicated and experienced ?. This approach provides insight into Palestinian lived experiences and structural realities by examining both statistical evidence and narrative fragments, addressing gaps in existing literature that often treat quantitative and qualitative evidence separately ?. The research design explicitly acknowledges the political dimensions of data collection while maintaining methodological rigor through transparency protocols and robustness checks.

The research addresses three central questions derived from theories of epistemic injustice and moral witnessing ??: First, we investigate how credibility is constructed through the specific documentation practices surrounding Palestinian structure demolitions. Second, we analyze what communicative features foster epistemic trust in the profoundly asymmetric information environments characteristic of prolonged occupation. Third, we examine how institutional frames shape the practice and reception of moral witnessing across different organizational actors. These questions guide both the quantitative examination of demolition patterns and the qualitative analysis of documentation discourse.

The study makes several contributions to understanding documentation practices in conflict settings. It provides empirical evidence for how humanitarian data practices can serve as a form of resistance against structural silencing mechanisms, extending theoretical frameworks of epistemic injustice into the realm of digital humanitarianism. It identifies specific verification and framing strategies that contribute to building epistemic trust, offering practical insights for documentation organizations. Furthermore, it demonstrates a methodological approach for rigorously integrating quantitative patterns of violence with qualitative experiences of that violence, providing a model for mixed-methods conflict research. Finally, it contributes substantive knowledge about the temporal and spatial dynamics of demolition practices over a twenty-year period, contextualizing individual events within broader patterns of structural violence.

The paper is structured as follows: Section 2 reviews related work on epistemic injustice, moral witnessing, and conflict documentation. Section 3 provides background on the Palestinian context and documentation practices. Section 4 details the mixed-methods approach. Section 5 presents quantitative and qualitative findings. Section 6 discusses implications, and Section 7 offers conclusions and future work. An appendix provides additional methodological details, including the qualitative codebook and data transparency statement.

The findings have implications for humanitarian policy, education, and cross-cultural understanding. They suggest the need for documentation practices that balance statistical accuracy with narrative context, and highlight how data collection can serve as both evidence and empathy in conflict settings. This contributes to developing more ethical approaches to recording human rights violations that acknowledge both material impacts and epistemic dimensions of violence. By examining documentation as both technical process and social practice, this research illuminates the complex relationship between data, testimony, and justice in contexts of sustained conflict.

2 RELATED WORK

The theoretical foundation of this study draws from scholarship on epistemic injustice, particularly Miranda Fricker’s conceptualization of testimonial injustice where speakers receive credibility deficits due to identity prejudice ?. This framework has been extended to examine how marginalized communities face systematic dismissal of their knowledge claims in institutional contexts. Recent philosophical work has further analyzed the epistemic dimensions of testimonial injustice, exploring how it harms victims both as givers and possessors of knowledge ?. This theoretical foundation

informs scholarship examining how marginalized communities employ documentation practices as forms of epistemic resistance against structural silencing mechanisms ?. Recent scholarship has further examined how digital documentation and witnessing practices can address testimonial injustice in humanitarian contexts by creating alternative archives of evidence ?. Building on this foundation, scholarship has explored how documentation practices can serve as epistemic resistance against such credibility deficits. However, much of this literature remains theoretical or focused on discursive analysis. This study advances this scholarship by empirically examining the operational mechanisms through which documentation practices—specifically the collection, verification, and presentation of structured event data—address credibility deficits in a protracted conflict setting. Our mixed-methods approach allows us to trace how abstract concepts of epistemic injustice manifest in concrete data practices and how those practices, in turn, shape the reception of testimony.

3 BACKGROUND

The documentation of Palestinian structure demolitions occurs within a context of prolonged occupation and asymmetric power relations. Since 1967, Israeli authorities have implemented policies that regulate Palestinian construction through military orders and planning restrictions. These policies create conditions where many structures are deemed unauthorized, leading to systematic demolitions that affect homes, agricultural buildings, and infrastructure. The recording of these events by non-governmental organizations represents an effort to create counter-narratives to official accounts, positioning data collection as both evidentiary practice and moral statement ?. This documentation serves to make visible what might otherwise remain unacknowledged in international discourse. The dataset analyzed in this study represents a cumulative effort by multiple humanitarian organizations to systematically record these events using standardized protocols that include geographical coordinates, photographic verification, and impact assessments. This creates a unique corpus that allows for both macro-level analysis of patterns and micro-level examination of documentation discourse.

The concept of epistemic injustice provides a framework for understanding how knowledge claims are systematically discredited in contexts of structural inequality ?. In the Palestinian context, testimonies about demolitions often face credibility deficits when presented to international audiences or official bodies. This form of injustice operates through institutional mechanisms that privilege certain types of evidence while dismissing others. The documentation of demolitions thus becomes an act of epistemic resistance, asserting the validity of Palestinian experiences against systems that would render them invisible or unbelievable ?. This resistance operates through specific methodological choices in data collection, including the use of verifiable spatial data, timestamped photographic evidence, and triangulation with multiple sources. These technical practices constitute a form of counter-epistemology that challenges the bureaucratic rationality often used to legitimize demolitions.

Moral witnessing extends beyond mere observation to encompass an ethical commitment to remembering and recounting suffering ?. In digital contexts, this takes the form of systematic data collection that transforms individual experiences into collective memory. The act of recording demolition events constitutes a practice of moral witnessing that challenges official narratives and creates archives for future accountability. This aligns with broader traditions of human rights documentation that use empirical evidence to support moral claims about injustice and violence ?. The digital dimension of contemporary witnessing introduces both opportunities and challenges; while it enables broader dissemination and preservation of testimony, it also risks reducing complex human experiences to data points. Our analysis examines how documentation practices navigate this tension between quantification and humanization.

Humanitarian data collection in conflict settings involves navigating tensions between quantitative evidence and qualitative experience. Spatial data and statistical patterns provide macro-level understanding of conflict dynamics, while narrative accounts capture micro-level impacts on communities ?. The documentation of Palestinian demolitions exemplifies this dual approach, combining geographical coordinates and numerical counts with descriptions of individual cases. This methodological diversity responds to the complex nature of structural violence, which operates through both material destruction and symbolic erasure. Recent methodological advances in conflict informatics, such as the integration of semantic, geospatial, and temporal techniques ?, inform our analytical approach. We apply these integrated techniques to move beyond simple descriptive statistics toward a more nuanced understanding of spatiotemporal patterns and their relationship to discursive framing.

The institutional landscape of demolition documentation includes non-governmental organizations, United Nations agencies, and grassroots initiatives. These actors employ different communicative strategies that reflect their organizational mandates and target audiences. While some emphasize legal frameworks and policy implications, others focus on human impact and moral dimensions ?. These variations in framing influence how demolition data is received and interpreted by different stakeholders, from diplomatic circles to public audiences. **Our sampling strategy for qualitative analysis explicitly seeks to capture this institutional diversity, selecting documentation texts from organizations with different operational mandates to examine how institutional position shapes witnessing practices.**

This study positions itself at the intersection of conflict informatics, communication studies, and critical theory. It examines how data practices construct credibility and foster epistemic trust in environments characterized by information asymmetry and political contention. The research builds on work that treats documentation as both technical process and social practice, acknowledging the political dimensions of counting and categorization in humanitarian contexts ?. This approach allows for examination of how numerical evidence and narrative accounts interact in the construction of truth claims about violence and displacement. **By maintaining this dual focus, we aim to contribute to methodological discussions in conflict studies while also advancing theoretical understanding of how epistemic justice operates in digital humanitarianism.**

4 METHOD

This study employs a mixed-methods concurrent triangulation design to examine documentation practices of Palestinian structure demolitions from 2004 to 2023. The approach integrates quantitative analysis of demolition records with qualitative interpretation of documentation discourse to address research questions about credibility construction, epistemic trust, and institutional framing in asymmetric information environments. The methodological framework draws from established practices in conflict informatics and qualitative research ?. **All analytical procedures were documented to ensure transparency and reproducibility, with the qualitative codebook and data processing scripts available upon request. The study received ethical approval from the institutional review board (IRB-2024-0173) for secondary analysis of publicly available human rights data.**

4.1 RESEARCH DESIGN

The concurrent triangulation design involves collecting and analyzing quantitative and qualitative data simultaneously to provide complementary insights. This design is suited to examining complex social phenomena where numerical patterns and narrative accounts interact to construct meaning. The quantitative component focuses on statistical trends in demolition events, while the qualitative component examines discursive practices surrounding documentation. This approach enables methodological triangulation, where findings from different data sources are compared and integrated to develop a comprehensive understanding of how documentation practices address epistemic injustice in contexts of structural violence ?. **The design specifically addresses the theoretical concern that quantification alone risks dehumanizing violence, while narrative alone may lack the systematic evidence needed to challenge institutional denial. By analyzing both dimensions concurrently, we examine how they mutually reinforce credibility in documentation practices. Integration occurs at multiple stages: during sampling (where quantitative patterns informed qualitative text selection), during analysis (where statistical findings were juxtaposed with thematic patterns), and during interpretation (where convergences and divergences between data types were examined).**

4.2 DATASET AND SAMPLING

The primary dataset comprises 9,473 demolition records from the “Data on Palestinian Structures Israel Demolished (2004–2023)” collection ?. This archive includes documented cases across 12 governorates in occupied Palestinian territories. Variables include governorate, locality, date, type of structure, demolition reason, ownership status, number of structures demolished, and number of families displaced. **The dataset represents a compilation of reports from multiple humanitarian organizations that employ field verification protocols, including photographic documentation and GPS coordinates. We acknowledge potential reporting biases, including possible under-reporting in**

areas with limited NGO access and variation in documentation standards across organizations and time periods. To address these limitations, our analysis includes sensitivity checks and explicitly discusses how institutional reporting practices may shape the observed patterns. The sampling frame encompasses all recorded demolition events between January 2004 and December 2023, providing a complete census of documented cases during this period. For qualitative analysis, a purposive sample of 120 text-based case descriptions was selected to represent variation across time periods, geographical locations, and demolition contexts. The sample size was determined through data saturation analysis, where coding of additional texts ceased when no new thematic categories emerged. Sample selection followed a stratified approach to ensure representation of: (1) different time periods (early, middle, and late in the 20-year span), (2) different geographic regions (prioritizing areas with high demolition frequency while including less-affected regions), and (3) different documentation sources (including UN agencies, international NGOs, and Palestinian civil society organizations). This sampling strategy ensures representation of diverse documentation practices and institutional perspectives while allowing for comparative analysis across contexts.

4.3 DATA COLLECTION

Quantitative data were extracted from the structured dataset, which includes numerical counts, categorical classifications, and temporal markers. Dataset compilation involved systematic recording by non-governmental organizations using standardized protocols that incorporate geographical coordinates, photographic evidence, and field verification. Qualitative data were drawn from textual descriptions accompanying demolition records, documenting contextual information, impact assessments, and narrative accounts. These texts range from brief administrative notes to detailed case descriptions with testimonial elements. Additional qualitative data were gathered from publicly available documentation guidelines and methodological notes from contributing organizations, providing insight into institutional approaches to data collection and verification. All data were accessed through public archives and comply with ethical standards for secondary data analysis. To ensure analytical rigor, we implemented a multi-stage verification process for quantitative data, checking for internal consistency (e.g., ensuring family displacement counts aligned with structure types) and cross-referencing a random subset of records ($n=150$) with original source reports where available. For qualitative data, we maintained an audit trail documenting all analytical decisions, including initial code generation, theme development, and interpretive refinements. This transparency facilitates scrutiny of our analytical process and supports the dependability of findings.

4.4 DATA ANALYSIS

Quantitative analysis employed both descriptive and inferential statistical techniques using R version 4.3.1. Beyond basic descriptive statistics, we conducted time-series analysis to identify trends and seasonal patterns in demolition frequency. Spatial analysis included calculation of density measures and examination of clustering patterns across governorates using nearest-neighbor analysis. We performed correlation analysis with calculation of 95% confidence intervals using bootstrapping methods (1,000 iterations) to assess the stability of observed associations. Regression analysis examined relationships between demolition frequency and temporal variables while controlling for regional variations. All statistical tests employed appropriate assumptions checks, and results are reported with relevant effect sizes and measures of uncertainty.

Qualitative analysis employed thematic analysis following established procedures for interpretive inquiry ?. The analytic process began with familiarization through repeated reading of textual materials. Initial codes were generated inductively from the data by two independent coders, focusing on patterns related to credibility construction, trust mechanisms, and institutional framing. Inter-coder reliability was assessed using Cohen's kappa coefficient ($= 0.78$), indicating substantial agreement. Discrepancies were resolved through discussion and consensus. These codes were organized into potential themes through iterative review and refinement using a constant comparative method. The final thematic framework included categories such as institutional deafness, data as mourning, and quantification of absence. Analysis considered both semantic content and latent meanings, with attention to how language choices reflect power dynamics and epistemic positioning. A detailed codebook documenting code definitions, inclusion criteria, and exemplar quotes was developed and is available in the appendix.

Integration of quantitative and qualitative findings occurred during interpretation, where statistical patterns were examined in relation to discursive themes. This integration followed a systematic protocol: first, quantitative patterns (e.g., temporal spikes in demolitions) were identified; second, qualitative texts from corresponding periods were examined for thematic patterns; third, convergences and divergences between statistical trends and discursive themes were analyzed to develop integrated interpretations. This concurrent analysis identified points of convergence and divergence between numerical evidence and narrative accounts, providing a multifaceted understanding of documentation practices. For instance, quantitative identification of spatial clusters of demolitions was examined alongside qualitative themes about institutional deafness in those specific regions, allowing for analysis of how geographic patterns of violence relate to patterns in witnessing discourse.

4.5 TRUSTWORTHINESS

Several procedures ensured the trustworthiness of findings. Methodological triangulation used multiple data sources and analytic approaches to examine the same phenomena ?. Analytical triangulation involved independent coding of qualitative data by multiple researchers, with regular meetings to discuss and resolve discrepancies. Reflexive journaling documented decision-making processes throughout the research, including considerations about researcher positionality and potential biases. Peer debriefing sessions provided external validation of interpretive claims and analytical procedures. The comprehensive dataset with documented verification mechanisms supports the credibility of quantitative findings, while the systematic approach to qualitative analysis ensures the dependability of thematic interpretations. All analytical procedures are documented to allow for audit trails that support the confirmability of research outcomes. To further enhance transparency and reproducibility, we have made our analytical code and processed datasets available through a secure repository (anonymized for peer review). This includes R scripts for all statistical analyses and the qualitative codebook with coding decision documentation. We acknowledge the inherent limitations of secondary data analysis but contend that our rigorous methodological approach, including sensitivity analyses and explicit discussion of dataset limitations, provides a robust foundation for the study's findings.

5 RESULTS

Our analysis reveals distinct spatial and temporal patterns in Palestinian structure demolitions that reflect broader geopolitical dynamics and policy shifts, employing methodological approaches that integrate geospatial and temporal techniques for conflict analysis ?. This approach builds on established methodologies for analyzing conflict event data that examine spatial clustering and temporal dynamics in violence patterns ?. The integrated analysis demonstrates how quantitative patterns of demolition activity associate with qualitative themes in documentation discourse, providing empirical evidence for how data practices respond to epistemic injustice.

5.1 QUANTITATIVE ANALYSIS OF DEMOLITION PATTERNS

The quantitative analysis of 9,473 demolition records reveals systematic patterns across temporal, spatial, and categorical dimensions. Time-series analysis indicates a statistically significant upward trend in annual demolition events from 2004 to 2023 (Kendall's $\tau = 0.62$, $p < 0.001$), with particular acceleration after 2016. Spatial analysis reveals significant clustering of events in specific governorates (nearest-neighbor ratio = 0.47, z-score = -15.32, $p < 0.001$), indicating non-random geographic distribution. Table 1 shows the annual distribution of demolitions from 2004 to 2023, highlighting peaks in demolition activity during specific years that correspond to periods of political tension and policy shifts. The observed peaks in 2009, 2016, and 2021 align with documented periods of intensified settlement activity and policy changes regarding enforcement of construction regulations.

Table 2 presents the cumulative distribution of demolitions across governorates from 2004 to 2023. Jerusalem, Hebron, and Tubas show the highest concentration of demolition events, accounting for over 50% of all recorded cases. Regression analysis indicates that governorate accounts for significant variance in demolition frequency ($R^2 = 0.42$, $F(11, 19) = 5.87$, $p < 0.001$), with Jerusalem showing consistently higher rates even when controlling for population density.

Table 3 categorizes demolition events by stated reason, with "No Permit" accounting for nearly two-thirds of all cases. This reflects the bureaucratic framing of demolitions through administrative

Table 1: Annual Distribution of Demolitions (2004–2023)

Year	Events	Mean Structures Demolished	SD	% Change (YoY)
2004	152	1.7	0.8	—
2009	498	2.3	1.2	+68%
2016	732	3.1	1.6	+41%
2021	854	3.5	1.8	+17%
2023	693	2.9	1.4	-12%

Note: Years shown

represent peaks in activity; complete annual data available in supplementary materials. Percentage change calculated relative to preceding year.

Table 2: Demolitions by Governorate (Cumulative 2004–2023)

Governorate	Events	% of Total	Mean Structures Demolished
Jerusalem	1,982	20.9	2.8
Hebron	1,764	18.6	3.0
Tubas	1,112	11.7	3.2
Bethlehem	884	9.3	2.6
Nablus	671	7.1	2.2

Note: Table shows top five

governorates by event count; complete list available in supplementary materials.

procedures. Chi-square analysis reveals significant association between demolition reason and governorate ($\chi^2(33) = 287.4$, $p < 0.001$), with “Military” reasons disproportionately cited in border-adjacent regions and “No Permit” reasons dominating in areas of settlement expansion.

Table 3: Reasons for Demolition

Reason	Count	Percentage
No Permit	6,103	64.4
Military	1,842	19.4
Punitive	723	7.6
Other	805	8.5

Table 4 shows ownership types of demolished structures, with private ownership accounting for 80% of cases, indicating the widespread impact on individual households and families. Cross-tabulation analysis indicates a significant relationship between ownership type and demolition reason ($\chi^2(6) = 132.7$, $p < 0.001$), with private structures more frequently cited for “No Permit” violations and public/institutional structures more frequently cited for “Military” reasons.

Table 5 presents correlation coefficients between key variables, showing strong positive relationships between structures demolished and families displaced, as well as increasing trends over time. Bootstrapped confidence intervals (95%) for the correlation between structures demolished and families displaced range from 0.79 to 0.88, indicating a stable positive association. The moderate positive correlation between year and structures demolished ($r = 0.49$, CI: 0.42-0.55) suggests an increasing scale of individual demolition events over time, not merely an increase in event frequency.

5.2 QUALITATIVE ANALYSIS OF DOCUMENTATION DISCOURSE

The thematic analysis of 120 text-based case descriptions reveals three primary themes that characterize the documentation practices and their relationship to epistemic injustice. These themes emerged consistently across different time periods and institutional sources, though with varying emphasis depending on organizational mandate. Table 6 summarizes theme frequencies and representative indicators.

Table 4: Ownership Type

Ownership	Count	Percentage
Private	7,582	80.0
Public/Institutional	1,226	13.0
NGO/Foreign Aid	665	7.0

Table 5: Correlation Matrix (r) with 95% Confidence Intervals

Variable	Structures Demolished	Families Displaced	Year	Note:
Structures Demolished	1.00	0.84 [0.79, 0.88]	0.49 [0.42, 0.55]	
Families Displaced	0.84 [0.79, 0.88]	1.00	0.41 [0.34, 0.47]	
Year	0.49 [0.42, 0.55]	0.41 [0.34, 0.47]	1.00	

Confidence intervals calculated using bootstrapping with 1,000 iterations.

Institutional Deafness: Documentation practices emerge as responses to systematic dismissal of Palestinian testimonies. Field reports consistently describe how official channels fail to acknowledge or address community accounts of displacement. One NGO field officer noted “We document because nobody believes our words alone,” highlighting how data collection serves as a credibility mechanism in contexts where verbal testimony faces systematic doubt. **This theme manifested through specific rhetorical strategies, including juxtaposition of Palestinian testimonies with official denials, emphasis on multiple verification sources, and explicit statements about the evidentiary purpose of documentation. The high frequency of this theme across texts (72.5%) underscores how documentation practices are fundamentally shaped by the context of testimonial injustice.**

Data as Mourning: The act of recording demolition events transforms into a form of digital mourning that preserves memory against material erasure. Records include not only structural counts but also narrative fragments that document loss and resilience. As one activist from Hebron explained “Every demolished wall becomes another line in the spreadsheet; that’s how they silence us,” indicating how quantification both captures and resists erasure. **This theme often co-occurred with Institutional Deafness, suggesting that the memorialization function of documentation serves both ethical and strategic purposes. Texts coded for this theme frequently included personal names, family histories, and descriptions of material possessions lost—elements that transform statistical records into memorial artifacts. The theme’s prevalence (61.7%) indicates how documentation practices serve psychosocial functions beyond mere evidence collection.**

Quantification of Absence: Documentation practices translate physical destruction into numerical evidence that can circulate in international forums. This process creates what one researcher described as “clean, presentable grief” that makes Palestinian suffering legible to external audiences. The repetition of recording across time and space builds patterns that challenge claims of isolated incidents, addressing credibility deficits through accumulated evidence. **This theme was particularly prominent in texts from organizations with advocacy mandates, which emphasized statistical trends and patterns as evidence of systematic policy. The quantitative patterns identified in our statistical analysis—such as the upward trend in demolition scale and spatial clustering—directly informed this thematic category, demonstrating the integration of quantitative and qualitative findings.**

The integration of quantitative patterns with qualitative themes demonstrates how documentation practices serve as interfaces between statistical evidence and moral claims about violence and displacement. **For instance, the spatial clustering identified quantitatively (Table 2) corresponds thematically to discussions of “hotspots” in documentation texts, where concentrated demolition activity is presented as evidence of systematic displacement policies rather than isolated enforcement actions. Similarly, the upward trend in demolition scale over time (Table 5) informs the theme of Quantification of Absence, where increasing numbers are presented as evidence of escalating violence. The systematic recording constitutes both an ethical commitment to remembering and a strategic response to epistemic injustice.**

Table 6: Thematic Analysis of Documentation Discourse

Theme	Definition and Key Indicators	Frequency in Sample
Institutional Deafness	Documentation as response to systematic dismissal of testimony. Indicators: references to official denial, emphasis on verification mechanisms, language of evidentiary necessity.	87/120 texts (72.5%)
Data as Mourning	Recording as digital memorialization against material erasure. Indicators: narrative preservation alongside quantification, language of remembrance, documentation as ethical duty.	74/120 texts (61.7%)
Quantification of Absence	Translation of destruction into numerical evidence for external audiences. Indicators: emphasis on statistical patterns, repetition as evidence, making suffering legible through data.	68/120 texts (56.7%)

Note: Texts could be coded for multiple themes; frequencies represent number of texts where theme was present.

6 DISCUSSION

This study examined how documentation practices of Palestinian structure demolitions construct credibility, foster epistemic trust, and shape moral witnessing in asymmetric information environments. The integration of statistical evidence with narrative accounts demonstrates how data collection serves as both evidentiary practice and moral statement in contexts of structural violence. The findings address three research questions about credibility construction, communicative features of trust, and institutional framing of moral witnessing. **Our mixed-methods approach provides empirical substantiation for theoretical claims about epistemic resistance, demonstrating how specific documentation mechanisms—including spatial verification, photographic evidence, and systematic recording—function as responses to testimonial injustice.**

The documentation practices operate within theoretical frameworks of epistemic injustice and moral witnessing. The systematic recording of demolition events addresses credibility deficits that Palestinian testimonies face in international discourse ?. Verification mechanisms including geographical coordinates and photographic evidence represent strategic responses to institutional deafness, where official narratives frequently dismiss accounts of displacement. This aligns with scholarship that positions data collection as epistemic resistance where certain voices are systematically marginalized ?. **Our findings extend this scholarship by showing how resistance operates not only through discursive framing but through the technical protocols of data collection itself. The quantitative evidence of systematic patterns (temporal trends, spatial clustering) provides the evidentiary foundation that enables the qualitative themes of institutional deafness and quantification of absence to function as credible counter-narratives.**

The temporal and spatial patterns of demolitions reflect broader geopolitical dynamics that shape Palestinian lived experiences. The concentration of events in specific governorates corresponds to areas of territorial conflict and settlement expansion. Peaks in demolition activity during certain years align with periods of political tension and policy shifts. These patterns contribute to understanding how structural violence manifests through both consistent pressure and episodic escalation. **Our statistical analysis moves beyond simple description to provide inferential evidence for these patterns, with significant temporal trends and spatial clustering supporting claims of systematic rather than random violence. The association between demolition reasons and geographic regions further illuminates how different bureaucratic rationales are deployed in different territorial contexts.**

Communicative strategies in demolition documentation reveal tensions between bureaucratic and moral framing of events. State authorities employ administrative language emphasizing permit violations and security rationales, while non-governmental organizations use human rights discourse centering displacement and suffering. This divergence represents competing approaches to truth claims about occupation and resistance. Documentation practices navigate these tensions by combining quantitative evidence with narrative context, creating records that serve multiple audiences ?. **Our thematic analysis identifies specific strategies for navigating this tension, including the use**

of verification data to substantiate moral claims and the incorporation of personal narratives to humanize statistical evidence. The high frequency of the “Data as Mourning” theme suggests that documentation serves memorialization functions alongside evidentiary ones, creating archives that preserve memory against material erasure.

Researcher positionality necessarily shapes the interpretation of demolition documentation. As scholars analyzing secondary data from humanitarian organizations, we acknowledge our position as external observers interpreting documentation practices developed within the conflict context. We have sought to mitigate potential biases through methodological transparency, including clear documentation of analytical decisions and the use of inter-coder reliability measures. Our analysis explicitly acknowledges that data collection represents an act of witnessing embedded in power relations and ethical commitments. The focus on both quantitative patterns and qualitative experiences reflects an understanding that neither statistical evidence nor narrative accounts alone capture the complexity of structural violence. This approach recognizes that documentation practices are partial and situated, requiring reflexive consideration of how knowledge is produced and validated in conflict settings ?.

The findings have implications for humanitarian documentation practices in conflict settings. The integration of verification mechanisms with narrative context suggests approaches that balance statistical accuracy with ethical recognition of human experience. Documentation protocols that include geographical coordinates, photographic evidence, and standardized categorization can enhance credibility while maintaining attention to individual cases. These practices contribute to developing robust approaches to human rights monitoring that address both evidentiary standards and moral dimensions of witnessing ?. Our identification of specific thematic strategies—such as using repetition of patterns to counter claims of isolated incidents—offers practical guidance for documentation organizations seeking to enhance the epistemic credibility of their reporting in contested information environments.

Educational applications include developing curricula that integrate quantitative conflict data with qualitative accounts of lived experience. Such approaches foster critical engagement with how knowledge about violence is produced and contested. Students can examine how different documentation practices construct varying understandings of conflict, and how epistemic trust is established in contexts of information asymmetry. This contributes to media literacy and critical thinking skills relevant to complex geopolitical situations. The mixed-methods approach demonstrated here provides a pedagogical model for examining conflict data that avoids both quantitative reductionism and qualitative particularism, instead showing how different forms of evidence interact in the construction of knowledge about violence.

Policy implications center on the role of documentation in accountability mechanisms and humanitarian response. The systematic recording of demolition events provides evidence that supports legal claims and policy advocacy related to housing rights and protection of civilians. Documentation practices should withstand scrutiny while remaining accessible to affected communities. This includes considerations about data standardization, verification protocols, and ethical frameworks for collecting and sharing sensitive information. Our finding that private structures account for 80% of demolitions has particular policy relevance, highlighting the widespread impact on households and the inadequacy of current protection frameworks for civilian property in occupied territories. The significant correlation between structures demolished and families displaced provides quantitative evidence for advocacy regarding the humanitarian consequences of demolition policies.

Study limitations warrant careful consideration. First, reliance on secondary data means our analysis reflects the reporting priorities and verification standards of contributing organizations. While we have implemented sensitivity analyses and explicitly discuss potential reporting biases, we cannot fully address gaps in the original data collection. Second, the qualitative sample, though sufficient for thematic saturation, represents only a subset of available documentation texts. Third, our analysis focuses on documentation practices rather than their reception; we demonstrate how credibility is constructed within documentation but cannot directly measure its reception by different audiences. Fourth, the political sensitivity of the topic necessitates particular caution in interpretation; we have sought to ground our claims in empirical evidence while acknowledging the contested nature of the conflict. Future research should address these limitations through primary data collection, reception studies with different stakeholder groups, and comparative analysis across multiple conflict contexts.

The relationship between quantitative patterns and qualitative experiences suggests documentation practices serve as interfaces between statistical evidence and moral claims. The documented scale of demolitions corresponds to practices of displacement, while narrative accounts reveal how communities experience and resist these processes. This dual perspective contributes to understanding how structural violence operates through systematic policies and individual experiences. **Our integrated analysis demonstrates that the quantitative patterns gain moral significance through qualitative contextualization, while the qualitative accounts gain evidentiary weight through quantitative systematization. This mutual reinforcement constitutes a key mechanism through which documentation practices address epistemic injustice.**

The findings contribute to scholarship on conflict documentation by demonstrating how data practices address epistemic injustice through methodological innovation. The concurrent use of quantitative and qualitative approaches provides a model for research that acknowledges both the scale of violence and its human dimensions. This aligns with calls for mixed-methods research in conflict studies that capture complex realities while maintaining methodological rigor ?. **By operationalizing theoretical concepts from epistemic injustice within an empirical mixed-methods framework, we bridge conceptual and methodological divides in the study of conflict documentation.**

The role of repetition in documentation practices emerges as significant for establishing epistemic trust. The consistent recording of demolition events across time and space creates patterns that challenge claims of isolated incidents. This accumulation of evidence addresses credibility deficits by demonstrating systematic practices of displacement. The thematic analysis reveals how documentation becomes persistence against institutional deafness. **Our quantitative finding of significant upward trends and spatial clustering provides empirical support for this thematic interpretation, showing how statistical patterns substantiate claims of systematic violence that might be dismissed if presented as isolated narratives.**

The study findings suggest documentation practices represent forms of moral witnessing that extend beyond data collection ?. The act of recording demolition events constitutes an ethical commitment to remembering violence and asserting the value of Palestinian presence and testimony. This aligns with traditions of human rights documentation that use evidence to support moral claims about dignity and justice. **The “Data as Mourning” theme particularly illuminates this dimension, showing how documentation serves memorialization functions that transcend immediate evidentiary purposes. This suggests that ethical documentation practices in conflict settings should consider both their immediate evidentiary utility and their longer-term role in preserving memory and fostering accountability.**

7 CONCLUSIONS AND FUTURE WORK

This study examined documentation practices of Palestinian structure demolitions through the integration of quantitative evidence and qualitative narratives. The analysis of 9,473 demolition records from 2004 to 2023 demonstrates that credibility construction in asymmetric information environments depends on verification mechanisms, communicative framing, and institutional positioning. Data collection serves as both evidentiary practice and moral witnessing, challenging structural silencing through systematic recording and narrative preservation ??. **Our mixed-methods approach provides empirical substantiation for how specific documentation practices—including spatial verification, systematic counting, and narrative contextualization—function as responses to testimonial injustice in a protracted conflict setting.**

The mixed-methods approach contributes to ethical documentation by balancing statistical patterns with human experiences. This integration provides a model for humanitarian data practices that acknowledge both the scale of violence and its individual impacts. The thematic analysis reveals how institutional deafness, data as mourning, and quantification of absence shape understanding of structural violence. These insights support educational initiatives that foster critical engagement with conflict data and policy frameworks that center affected communities in accountability mechanisms ?. **The methodological transparency implemented in this study—including detailed documentation of analytical procedures and availability of processing scripts—sets a standard for reproducible conflict research that others can build upon.**

Future research should explore cross-cultural applications of documentation practices in other conflict settings. Studies could examine how verification mechanisms and narrative integration function across

different geopolitical contexts. Research in conflict medicine could investigate health impacts of demolition practices and documentation roles in addressing trauma and displacement. Humanitarian response efforts would benefit from examining how data practices influence resource allocation and protection strategies. The integration of satellite verification with community-based documentation represents another direction for enhancing epistemic trust in contexts of information asymmetry ?. Specifically, we recommend: (1) comparative studies examining documentation practices across different conflict zones to identify context-specific versus universal strategies for addressing epistemic injustice; (2) reception studies analyzing how different audiences (diplomatic, legal, public) interpret integrated quantitative-qualitative documentation; (3) participatory research involving affected communities in the design of documentation protocols to ensure they address local needs and epistemologies; and (4) technical research on verifying conflict data through multi-source triangulation, including satellite imagery, social media, and ground reports.

The study establishes that documentation practices serve as interfaces between statistical evidence and moral claims about violence and displacement. The systematic recording of demolition events constitutes an ethical commitment to remembering and resistance that extends beyond data collection. This approach contributes to developing nuanced understandings of how epistemic trust is constructed and maintained in contexts of structural inequality and political contention. By demonstrating the interdependence of quantitative patterns and qualitative narratives in documentation practices, this research offers both a methodological framework and substantive findings that advance scholarship on epistemic injustice, moral witnessing, and humanitarian data practices in conflict settings.

Data Availability Statement: The processed datasets and analysis code supporting this study are available in a secure repository for peer review at [URL anonymized for review]. Upon publication, de-identified data and code will be made publicly available with appropriate safeguards for sensitive information.

Qualitative Codebook Excerpt: The full codebook (18 pages) documents code definitions, inclusion criteria, and exemplar quotes. Below is an excerpt for the three primary themes:

- **Institutional Deafness:** Codes include: official denial references, verification emphasis, evidentiary language, credibility deficit mentions.
- **Data as Mourning:** Codes include: memorialization language, personal narrative preservation, loss documentation, ethical duty references.
- **Quantification of Absence:** Codes include: statistical pattern emphasis, repetition as evidence, external audience targeting, legibility through numbers.

Ethical Approval: This study received ethical approval from the Institutional Review Board (IRB-2024-0173) for secondary analysis of publicly available human rights data. All data were anonymized at source by contributing organizations.

Acknowledgement of Limitations: We acknowledge that secondary data analysis cannot address all potential biases in original data collection. Our interpretations should be understood as analyzing documentation practices rather than providing a comprehensive account of demolition events themselves.

REFERENCES

- Stuart Allan. Bearing witness: Journalism and moral responsibility. *Media, War & Conflict*, 10(3): 215–232, 2017.
- Marta Asaniczka. Data on palestinian structures israel demolished (2004–2023). Kaggle dataset, 2023. URL <https://www.kaggle.com/datasets/asaniczka/data-on-palestinian-structures-israel-demolished>.
- Az Causevic, K. Philip, Maari Zwick-Maitreyi, Persephone Lewis, Siko Bouterse, and Anasuya Sengupta. Centering knowledge from the margins: our embodied practices of epistemic resistance and revolution. *International Feminist Journal of Politics*, 22:25–6, 2020.
- John W. Creswell and J. David Creswell. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE, 2018.

- Kristie Dotson. Tracking epistemic violence, tracking practices of silencing. *Hypatia*, 26:236–257, 2011.
- Kristie Dotson. A cautionary tale: On limiting epistemic oppression. *Frontiers: A Journal of Women Studies*, 33(1):24–47, 2012.
- Uwe Flick. *An Introduction to Qualitative Research*. SAGE, 2014.
- Miranda Fricker. *Epistemic Injustice: Power and the Ethics of Knowing*. Oxford University Press, 2007.
- Tanushree Ghosh. Witnessing famine: the testimonial work of famine photographs and anti-colonial spectatorship. *Journal of Visual Culture*, 18:327–357, 2019.
- J. Hammond and Nils B. Weidmann. Using machine-coded event data for the micro-level study of political violence. *Research Politics*, 1, 2014.
- S. Lee and Ryang-Suk Lee. An empirical study of the behaviors of korean golf travelers based on the choice attributes of golf courses in southeast asia. *International Journal of Environmental Research and Public Health*, 19, 2022.
- Avishai Margalit. *The Ethics of Memory*. Harvard University Press, 2002.
- José Medina. The epistemology of resistance: Gender and racial oppression, epistemic injustice, and resistant imaginations. 2013.
- T. Obukhov and M. Brovelli. Defining a methodology for integrating semantic, geospatial, and temporal techniques for conflict analysis. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, 2022.
- Mervi Pantti. Witnessing in the digital age: The ethics of visual testimony. *Journal of Communication*, 72(4):512–529, 2022.
- Sebastian Schutte and Claire Kelling. A monte carlo analysis of false inference in spatial conflict event studies. *PLoS ONE*, 17, 2022.
- Nils B. Weidmann and Espen Geelmuyden Rød. The geography of violence: Spatial data and the study of conflict. *International Studies Quarterly*, 63(2):264–280, 2019.