RECONSTRUCTING HIDDEN INTERNATIONAL HUMANITARIAN LAW VIOLATIONS THROUGH DIGITAL FORENSICS: CASE STUDYING PALESTINE AND THE GREATER MIDDLE EAST

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† Due to the rapidly changing circumstances in the areas addressed in this article, the author would like to clarify that the anaysis presented herein is current through April of 2024.

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Abstract

Currently, emerging drone strike and warfare technologies represent an unprecedented crisis for the international community. With the rising proliferation of warfare technology on the global front, much academic attention has now been paid to the regulation and governance of these forms of drone warfare. However, this paper offers a novel perspective, proposing that focus should be shifted to the way powerful states misapply international humanitarian norms of jus in bello to justify what are, in truth, jus ad bellum violations, effectively hiding these crimes from the view of the international legal community. Specifically, this paper posits that states, by focusing on their jus ad bellum justifications for engaging in anticipatory warfare, have hidden the violations perpetrated during these drone strikes—violations which are, in truth, jus in bello infringements. This paper goes further, noting that the designation of persons as "directly participating in hostilities" under the theory that they perform a "Continuous Combat Function," as first proposed by the Israeli High Court and later adopted by the International Committee of the Red Cross (ICRC), codifies this confusion of jus ad bellum and jus in bello norms in International Humanitarian Law (IHL). By codifying this admixture of justifications in IHL, powerful states are able to hide what are, in truth, jus in bello IHL violations from public scrutiny or courtroom accountability.

This paper offers a novel solution to the issue: first, it identifies how these jus in bello violations are being hidden underneath misapplied state rhetoric; then, by shifting academic focus towards new evidentiary fact-finding mechanisms such as digital forensics, it introduces a new form of accountability that has helped to bring these hidden violations to light. The paper focuses on demonstrating how this new form of evidentiary fact-finding provides the international

community with a crucial counter-narrative that resists dominant state narratives, which are currently being used to justify blatant violations of IHL. The paper does so by applying its thesis to some of the most pressing case-studies within IHL today, focusing specifically on three major recent events. The first is the drone strike killings in Pakistan, Syria, and Yemen. These strikes resulted in the deaths of almost a hundred civilians, but resulted in no legal recourse or attention from the legal community. The second subject of study is the Israel/Palestine Conflict, which has been ongoing for decades but has received renewed attention in the last year. And lastly, this paper examines the evidence that was presented to the ICJ during the January 2024 ruling of South Africa v. Israel. In a world now dominated by warfare and powerful states that are able to hide violations of humanitarian law behind misapplied legal rhetoric, the re-introduction of evidence that is able to bring these violations to light is critical to introducing accountability back into the debate.

"The power to narrate, or to block other narratives from forming and emerging, is very important to culture and imperialism, and constitutes one of the main connections between them."

—Edward Said, Orientalism 1978

I. HOW JUS IN BELLO VIOLATIONS OF INTERNATIONAL HUMANITARIAN LAW HAVE BECOME INVISIBLE WITHIN MODERN WARFARE

A. Introduction

Contemporarily, drone strikes and conflict zones present a unique legal landscape for the operation of "jus in bello[1]" norms and International Humanitarian Law (IHL).[2] Consequently, this paper addresses the question of how expanded legal justifications for the use of force, such as a person's "Continuous Combat Function (CCF),"[3] and influential state interpretations of the laws of armed conflict (LOAC) such as the DOD Law of War Manual,[4]

1. For an authoritative discussion of the "jus in bello" principles of warfare, *see* MICHAEL WALZER, JUST AND UNJUST WARS: A MORAL ARGUMENT WITH HISTORICAL ILLUSTRATIONS 41 (4th ed. 2006).

2. INT'L COMM. OF THE RED CROSS (ICRC), WHAT IS INTERNATIONAL HUMANITARIAN LAW? *passim* (Mar., 2004).

3. Nils Melzer, *Interpretative Guidance on the Notion of Direct Participation in Hostilities Under Humanitarian Law*, 90 INT'L REV. RED CROSS 991, 1007 (2008) (noting that "[c]ontinuous combat function requires lasting integration into an organized armed group acting as the armed forces of a non-State party to an armed conflict.").

4. U.S. DEP'T OF DEF. (DOD), OFF. OF GEN. COUNS., LAW OF WAR MANUAL (2015) (*updated* July, 2023) [hereinafter LAW OF WAR MANUAL].

have been used to justify armed attacks resulting in invisible violations of the principle of distinction: the jus in bello norm dictating that targets of military operations must be military themselves, rather than civilian.[5] This state practice of confusing "jus in bello" norms with "jus ad bellum" norms has left behind an evidentiary gap between official state narratives on what has occurred during a drone strike as compared to what independent investigation has discovered the truth to be. This paper argues that the state practice of obfuscating the distinction between jus in bello and jus ad bellum norms is a conscious tactic used to justify illegal drone strikes in a manner convincing to those outside the international law community.

The argument progresses in three parts. Part I first interrogates how complex state narratives, which now embody an admixture of ad bellum and in bello warfare justifications, have effectively blurred the distinction between both corpuses of norms. It investigates instances wherein powerful states have manipulated legal principles under IHL to justify their violations. Then, the second sub-section of Part I positions this analysis in the real world by showcasing how this admixture narrative results in invisible violations of IHL by focusing heavily on ad bellum norms to justify what are, in truth, in bello violations. The last subsection of this part then demonstrates the contemporary need to shift focus back onto the correct application of jus in bello principles, so as to make visible the violations that have been hidden by this sophisticated state narrativizing of IHL.

Building on this analysis, Part II of this paper focuses on applying this evaluation to these invisible violations, creating counter-narratives that oppose the sophisticated state rhetoric deconstructed in Part I. This section thereby showcases the role that digital forensics may have in uncovering these hidden jus in bello violations, and in preventing further such violations. As case studies, this paper explores a series of drone strike killings that highlight the mistakes made in both the targeting and narrativizing of these acts of war. The paper posits that powerful state actors such as the United States and United Kingdom have attempted to justify these "in bello" violations by mistakenly applying "ad bellum" justifications to the conflict.

Part III of this paper then tests how contemporary means of evidentiary fact-finding can showcase these hidden violations and thus re-introduce accountability for these crimes within the international community. This Part applies the foregoing analysis to the contemporary case-study of the ICJ's ruling in South Africa v. Israel from January 2024, in order to highlight how crucial a role digital forensic evidence still plays in combating these powerful state narratives, which manipulate perceptions of the situation on the ground to justify violations of IHL.

Part IV provides a brief conclusion which recapitulates the major arguments of the paper.

5. Protocol Additional (I) to the Geneva Conventions of 12 August 1949 Relating to the Protection of Victims of International Armed Conflict art. 48, June 8, 1977, 1125 U.N.T.S. 3 [hereinafter Additional Protocol I].

This introductory section aims to position the thesis—that digital forensics assists to identify invisible IHL violations in drone strike warfare—within the paper's wider analysis of how blended state narratives of jus ad bellum and jus in bello norms pose a unique issue that leads to these invisible violations of in bello warfare in the first instance. The purpose of Part I, therefore, is not to propose what the current law governing hostilities should be (the ideal lex ferenda of how states should conduct their warfare), but rather, to describe in practical terms the current legal framework (the lex lata of how states are currently conducting their warfare), and the issues it poses, to make IHL violations in contemporary drone strike warfare "invisible" to that framework.

As a preliminary note, most academic discussions on the topic of drone strike warfare have recently been focused on interrogating the multiplicity of issues present within drone technology itself. Such discussion largely evaluates how the remote operation of drones leads to certain problems. For instance, drone strikes are geographically far-removed from the strike location, which has allowed drone technology to expand the geographical scope of warfare, creating "infinite warfare;"[6] similarly the remote location of the drone strike makes it difficult to investigate these acts of war, and bring judicial accountability to the parties responsible when these strikes violate jus in bello norms.[7]

However, while these evaluations are useful, they are neither cutting-edge, nor do they offer a unique perspective on how better to view conflict in the modern day. In contrast, this paper shifts focus away from discussions on the drone strikes themselves and towards an evaluation of how contemporary forms of evidence can offer the legal community a unique new lens through which to evaluate conflict. Such a new perspective can also potentially offer solutions to problems such as the lack of accountability for these hidden violations.

In the following section, this paper first demonstrates its utility by showing how complex state narratives have shifted the discussion from in bello violations towards ad bellum justifications for these violations. The

6. *See* Derek Gregory, *The Everywhere War*, 177 GEOGRAPHICAL J. 238, 242 (2011) (stating "the legal logic through which the battlespace is extended beyond the declared zone of combat in Afghanistan is itself infinitely extendible. If the United States is fighting a global war, if it arrogates to itself the right to kill or detain its enemies wherever it finds them, where does it end?"); *see also*, Derek Gregory, *From a View to a Kill: Drones and Late Modern War*, 28 THEORY, CULTURE & SOC'Y 188, 193.

7. There has been ongoing debate on how UAVs, operated remotely, make it possible to overcome physiological constraints and enact warfare across the globe offering states with this power an unprecedented ability to conduct warfare in a flexible and easy manner. General Michael T. Moseley comments that the capacity "[to] launch a UAV from a remote field on the other side of the globe, then pilot that aircraft from a base in the United States […] offer[s] unprecedented flexibility to combatant commanders worldwide." 'REAPER' MONIKER GIVEN TO MQ-9 UNMANNED AERIAL VEHICLE, U.S. AIR FORCE (Sept. 14, 2006), https://www.af.mil/News/Article-Display/Article/129780/reaper-moniker-given-to-mq-9-unmanned-aerial-vehicle/.

section then interrogates this discursive phenomenon by suggesting that this state narrative—that is the narrative that intentionally confuses jus in bello norms with jus ad bellum norms—is highly problematic because it makes in bello violations invisible to IHL by couching them in analyses of ad bellum acts. The paper does this by first identifying how contemporary state narratives on ad bellum acts have affected in bello analyses, and then subsequently, by evaluating how this has contributed to making in bello violations invisible to the current IHL framework.

Within this thesis, invisible[8] violations of in bello norms are conceptualized as an "expansion of state power"[9] through drone strikes. These strikes are then hidden or justified by complex state narratives that blend ad bellum and in bello justifications. As a result, in bello violations committed during drone strikes now go unnoticed and unanalyzed under IHL. The timeliness and importance of this analysis is difficult to overstate, as warfare becomes increasingly protracted and complex, and violations of International Humanitarian Law go unnoticed in the ever-growing conflict zones.

B. Hidden Violations of Jus in Bello under the Admixture Narrative: Drone Strike Operations as a Case Study

As expounded above, this paper's primary concern regards jus in bello violations. Professor Yoram Dinstein succinctly describes jus in bello norms as the law of hostilities, resulting in the conduct of armed conflict.[10] This paper posits that states have intentionally obfuscated the difference between such norms and those of "jus ad bellum," which Professor Christine Gray describes as the "law governing the use of force."[11] While states blur the line between these two, the distinction is worth appreciating: "jus ad bellum" norms govern when it is acceptable for states to go to war, and thus jus ad bellum arguments for the use of force must focus on a particular set of justifications, including self-defense under Article 51 of the UN Charter.[12] On the other hand, "jus in bello" norms govern the conduct of combatants already at war, and define the scope and nature of uses of force that warring parties may take without violating IHL.[13] Thus, "jus in bello" justifications focus on

8. REBECCA MIGNOT-MAHDAVI, DRONES AND INTERNATIONAL LAW: A TECHNO-LEGAL MACHINERY 176 (2023) (commenting that "The unique effects that drone programs have on sovereignty have been neglected and underestimated. This neglect can be explained by the fact the technicalities of drone programs make the expansion of state power that it allows almost invisible.").

9. *Id.*

10. YORAM DINSTEIN, CONDUCT OF HOSTILITIES UNDER THE LAW OF INTERNATIONAL ARMED CONFLICT 4-6 (2d ed. 2016) (writing on the separation principle between jus ad bellum and jus in bello).

11. *See* CHRISTINE GRAY, INTERNATIONAL LAW AND THE USE OF FORCE 17 (4th ed. 2018).

12. U.N. Charter art. 51.

13. Additional Protocol I, *supra* note 5, at arts. 48-54.

distinction[14] and proportionality:[15] that is, whether acts of violence are directed at appropriate military targets and whether the force used is proportionate to the military value of the target. Although not the focus of this paper's academic argument, interrogating how states have shifted the discussion and justification of acts of warfare from the proper sphere of jus in bello norms towards the related, but inapposite, sphere of jus ad bellum norms, one can better appreciate the implications this shift has had on the IHL analysis of recent drone strikes. Thus, this paper briefly addresses this component in the following section.

To reiterate, jus ad bellum norms focus on the legality of using force as self-defense against other states or non-state actors. The extraterritorial use of force constitutes a prima facie violation of the UN prohibition against the use of force under Article 2(4) of the UN Charter.[16] This is because crossing the border of another State to commit an act of aggression triggers the application of the UN Charter.[17] Of course, matters change when the act of aggression is sanctioned by the State on whose territory the act was committed, and when the act was committed against a Non-state party, though there is debate on precisely how to analyze such situations. In order to understand why this is important, consider the case of how the official state rhetoric of the United States has shaped the customary law of jus ad bellum in the aftermath of the 9/11 attacks. Specifically, consider the U.S.'s rationalization of its recent drone strikes, which it has justified as "anticipatory self-defense."[18]

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14. *Id.* at arts. 48, 51.

15. *Id.* at arts. 51-52.

16. Article 2(4) provides that "[a]ll members shall refrain in their international relations from the threat of use of force against the territorial integrity or pollical independence of any state, or in any other manner inconsistent with the purposes of the United Nations." U.N. Charter, *supra* note 12, at art. 2, ¶ 4; *see also* General Treaty for Renunciation of War as an Instrument of National Policy art. 1, Aug. 27, 1928, 46 Stat. 2343 (commonly known as the Kellogg-Brian Pact of 1928). This principle was also confirmed as customary international law within ICJ jurisprudence in Military and Paramilitary Activities in and against Nicaragua (Nicar. v. U.S.), Judgement, 1986 I.C.J. Rep. 14, (June 27); *see also* Oil Platforms (Iran v. U.S.), Judgement, 2003 I.C.J. Rep. 161, (Nov. 6); Armed Activities on the Territory of the Congo (Dem. Rep. Congo v. Uganda), Judgement, 2005 I.C.J. Rep. 201, ¶ 148 (Dec. 19) (stating "the prohibition against the use of force is a counter stone of the United Nations Charter."); James Thuo Gathii, *Armed Activities on the Territory of the Congo*, 101 AM. J. INT'L L. 142, 144 (2007).

17. *See* U.N. Charter, *supra* note 12, at ch. VII.

18. *See* Claus Kreß, *Some Reflections on the International Legal Framework Governing Transnational Armed Conflicts*, 15 J. CONFLICT & SEC. L., Summer 2010, at 245, 248-252. While Kreß does not use the term "anticipatory self-defense, his work thoroughly discusses the principle without naming it as such. *See also*, Christian J. Tams, *The Use of Force against Terrorists*, 20 EUR. J. INT'L L. 359, 390 (2009) (writing that on the consequences of rejecting preemptive self-defense). For a similar analysis in an Australian context, *see* George Brandis, *The Right of Self-Defense Against Imminent Armed Attack in International Law*, EUR. J. INT'L L. BLOG (May 25, 2017), https://www.ejiltalk.org/author/gbrandis/; and for the same consideration concerning the U.K., *see* Jeremy Wright, Att'y Gen. U.K., Speech at the International Institute for Strategic Studies (Jan. 11, 2017) (transcript available at https://www.

The term "anticipatory self-defense" encompasses strikes conducted against individuals who have been labeled continuous and imminent threats during the "war against terrorism."[19] According to U.S. officials, "anticipatory self-defense"[20] evolved as an interpretation of the right to self-defense under Article 51 of the UN Charter.[21] Article 51 allows states to defend themselves against attack, and this purpose has been used to justify the use of force by 'anticipating' attacks in Non-International Armed Conflicts (NIACs).[22] This new framework of "anticipatory self-defense" now informs U.S. counterterrorism policy. But this is problematic, because Article 51 was originally intended to refer to justifications for jus ad bellum acts, not continuous jus in bello conduct, as is clear from the context of the surrounding articles in Chapter VII of the Charter.[23] Nonetheless, this distinction has been ignored by states practicing "anticipatory self-defense" through drone strike campaigns. For example, both a U.S. Department of Justice White Paper (2011)[24] and the "Bethlehem principles"[25] used the doctrine of anticipatory self-defense as an ad bellum norm to justify the War on Terror, as replicated

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gov.uk/government/speeches/attorney-generals-speech-at-the-international-institute-for-strategic-studies) [hereinafter Wright Speech].

19. *See generally* Daniel Bethlehem*, Self Defense Against an Imminent or Actual Armed Attack by Nonstate Actors*, 106 AM. J. INT'L L. 770 (2012).

20. *Id.*; *see also* Kreß, *supra* note 18, *passim* (addressing self-defense within the US framework after the 9/11 terror attack).

21. *See* Bethlehem, *supra* note 19, at 772.

22. *See* Christopher Greenwood, *International Law and the Pre-emptive Use of Force: Afghanistan, al-Qaida, and Iraq*, 4 SAN DIEGO INT'L L. J. 7, 17 (2003) (noting that the International Military Tribunals at Nuremberg and Tokyo applied a test known as the "Caroline" test, suggesting that a right of anticipatory self-defense against imminent threats of armed attacks was part of the customary law right preserved by Article 51 of the Charter); *see also* Raphael Van Steenberghe, *Self-Defense in Response to Attacks by Non-state Actors in the Light of Recent State Practice: A Step Forward?*, 23 LEIDEN J. INT'L L. 1183, *passim* (2010); *see generally* YORAM DINSTEIN, WAR, AGGRESSION AND SELF-DEFENSE 177-186 (4th ed. 2005).

23. *See generally*, U.N. Charter, *supra* note 12, at ch. 7.

24. LAWFULNESS OF A LETHAL OPERATION DIRECTED AGAINST A U.S. CITIZEN WHO IS A SENIOR OPERATIONAL LEADER OF AL-QAIDA OR AN ASSOCIATED FORCE, DEP'T OF JUST., *passim* (Nov. 8, 2011), https://www.justice.gov/sites/default/files/oip/legacy/2014/07/23/dept-white-paper.pdf. Again, while the paper does not deploy the term "anticipatory self-defense," the content of the white paper evinces an endorsement of this policy throughout.

25. Bethlehem, *supra* note 19, at 775.

in Yemen, Syria, and Afghanistan.[26] Correspondingly, this position has been heavily criticized by many in the IHL community.[27]

There are common themes that can be gleaned from the legal rationales offered by the U.S. in post-9/11 discussions.[28] The first common pattern is that the U.S. has shaped customary international law on drone strikes as an admixture of ad bellum and in bello principles. Both the U.S.[29] and U.K.[30] have claimed that their drone strikes are conducted in full accordance with domestic and international law, which they can only claim because the International Committee of the Red Cross (ICRC) adopted the CCF as a viable paradigm under the principle of distinction.[31] Further, the CCF designation is itself a creation of powerful states,[32] who use this admixture of the ad bellum principle of anticipatory self-defense to justify the in bello

26. In 2015, Senator Richard Burr commented "When you look around the world, whether it's in Yemen, whether its Syria, whether it's in Iraq, whether it's in Afghanistan or North Africa with Boko Haram, we've got terrorist elements that are carrying out terrorist acts and if you put that collection together, what you've got is a war on Western civilization. It really doesn't matter which terrorist group we insert into the blank." *Current Terrorist Threat to the United States: Hearing Before the Sen. Select Comm. on Intel.*, 114th Cong. 1 (2015) (statement of Richard Burr, Chair of the Sen. Intel. Comm.).; *see also* Tore Refslund Hamming & Pieter van Ostaeyen, *The True Story of al-Qaeda's Demise and Resurgence in Syria*, LAWFARE BLOG (Apr. 8, 2018, 10:00 AM), https://www.lawfareblog.com/true-story-al-qaedas-demise-and-resurgence-syria.

27. *see, e.g.*, WADE MANSELL & KAREN OPENSHAW, INTERNATIONAL LAW 26 (2d ed. 2019) (describing the contemporary events in Syria, Iraq and Afghanistan); *see also* COLUMBIA L. SCH. HUM. RTS. INST. & CTR. FOR CIVILIANS IN CONFLICT 32 (2020) (writing, "in current campaigns, often characterized by the use of air strikes and partnered operations […], the known channels for civilians to directly report harm to the U.S. military have been largely closed off. Publicized avenues for direct engagement between civilians and the military are limited in Iraq and Syria […], greatly reduced in Afghanistan, and are effectively non-existent in Yemen and Somalia.").

28. CHARLIE SAVAGE, POWER WARS: INSIDE OBAMA'S POST-9/11 PRESIDENCY 38 (2015) (providing an in-depth discussion on how warfare was shaped post-9/11, and for a consideration of how the war on terror shaped the law around organized armed groups); *see also* Al-Aulaqi v. Panetta, 35 F.Supp.3d 56, 60-64 (2014).

29. "We must apply, and we have applied, the law of armed conflict, including applicable provisions of the Geneva Conventions and customary international law, core principles of distinction and proportionality, historic precedent, and traditional principles of statutory construction." Jeh C. Johnson, U.S. Sec'y of Homeland Sec., National Security Law, Lawyers and Lawyering in the Obama Administration, Dean's Speech at Yale Law School (February 22, 2012) (transcript accessible at https://yalelawandpolicy.org/national-security-law-lawyers-and-lawyering-obama-administration).

30. "The UK Should and will only use armed force, and will only act in self-defense, where it is consistent with international law to do so. International law sets the framework for any action taken by Sovereign States overseas, and the UK acts in accordance with it." Wright Speech, *supra* note 18.

31. *See* Meltzer, *supra* note 3, *passim*.

32. *See The Practical Guide to Humanitarian Law*, DRS. WITHOUT BORDERS (last visited Apr. 17, 2024), https://guide-humanitarian-law.org/content/article/3/non-state-armed-groups (noting that the CCF principle was first developed by the Israeli High Court of Justice to justify its own targeted killing practices).

violation of firing on persons not presently and directly engaging in hostilities.[33]

However, even these claims remain suspect for two reasons. First, as mentioned above, CCF is a principle developed by only a few states and adopted by NGOs, but is not itself espoused by the Geneva Conventions or Additional protocols thereto.[34] And Second, as Professor Rebecca Mignot-Madhavi notes, the states whose actions have necessitated that they publicly claim to be acting in accordance with IHL have rarely provided details on how they implement the policies they claim to follow.[35] The internal policies of these states are unclear, and State officials are not transparent about certain decision-making elements that are particularly important for accountability, such as the "process of selecting targets," or "how the legality of drone strikes is ensured."[36] Nonetheless, these states have publicly devised legal arguments to justify these drone strikes against NIAC actors. In particular, the U.S. state justification includes references "to both jus in bello and jus ad bellum [norms] when framing their war on terror, and more specifically, when justifying drone operations in this context."[37] This closely aligns with the rhetoric that the Bush administration employed when arguing for extensive presidential war powers, having always used the armed conflict paradigm to justify the war on terror.[38]

This legal justification, which encompasses an admixture of ad bellum and in bello narratives, but which heavily focuses on the ad bellum aspect, achieved its current form during the Obama administration. During that time,

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33. *See* Parts II-III, *infra*.

34. Some authors have argued that CCF is a part of Additional Protocol II to the Geneva Conventions of 1949. *See, e.g.* Sabrina Henry, *Exploring the "Continuous Combat Function" Concept in Armed Conflict: Time for an Extended Application?*, 100 INT'L REV. RED CROSS 267, 268 n.4 (2018). However, this is inaccurate. For example, Sabrina Henry cites to Article 13(3) of Additional Protocol II for the proposition that the Protocol acknowledges the CCF, but in reality, the total text of Article 13(3) reads as follows: "Civilians shall enjoy the protection afforded by this Part, unless and for such time as they take a direct part in hostilities." Protocol Additional (II) to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts art. 13(3), opened for signing 8 June 1977, 1125 U.N.T.S. 609 (entered into force 7 December 1978).

35. Mignot-Madhavi, *supra* note 8, at 35; *see also* John O. Brennan, Assistant to the President for Homeland Sec. and Counterterrorism, The Efficacy and Ethics of US Counterterrorism Strategy, Remarks at the Woodrow Wilson International Center for Scholars (Apr. 30, 2012).

36. Mignot-Mahdavi, *supra* note 8, at 35.

37. *Id*. at 36.

38. "On September the 11th, enemies of freedom committed an act of war against our country […] Our war on terror begins with Al Qaeda, but it does not end there. It will not end until every terrorist group of global reach has been found, stopped and defeated". George W. Bush, President of the U.S., Addresses to the Nation, (Sept. 20, 2001) (transcript available at https://www.washingtonpost.com/wp-srv/nation/specials/attacked/transcripts/bushaddress_092001.html).

the erstwhile advisor to the U.S. Department of State, Harold Koh,[39] described the legal justification for using armed drones against Al-Qaeda, the Taliban, and other associated forces as "consisting of a hybrid paradigm composed of both jus in bello and jus ad bellum arguments,"[40] though clearly jus ad bellum principles were given the greater weight.

When interrogating how this mixing of principles occurred, particular attention must be drawn to the Obama administration's post-2013 state policy.[41] Here, the administration implied that its drone policy would almost exclusively focus on the right to self-defense under the Presidential Policy Guidance (hereinafter, PPG).[42] As Professor Mignot-Madhavi comments, the PPG "thus entrenched a mixed jus ad bellum/ jus in bello legal narrative for the extraterritorial use of drones against non-state actors."[43] This is important because the PPG is an exclusively American policy position, and is not a definitive instrument of—or on—international law. Nonetheless, because the PPG interprets jus ad bellum norms as recognizing that "continuing and imminent threat[s]"[44] could be legitimate targets of lethal force, the U.S. State Department continues to justify its drone campaigns using this logic. Under the PPG, then, the United States interprets the law on self-defense, a jus ad bellum principle, as a "paradigm to target individuals continuously having a hostile intent,"[45] a just in bello act.

This is problematic when analyzed properly under current IHL frameworks, such operations fall under the law of jus in bello. Unfortunately, the convenience of the PPG's position has allowed it to take on a life of its own in international law and discourse. Thus, this new 'admixture' war paradigm can now be observed in the rhetoric of other powerful states. For example, when the UK drone program attempted to justify the Reyaad Khan

39. Harold Koh, Legal Adviser to the U.S. Dep't of State, The Obama Administration and International Law, Speech at the Annual Meeting of the American Society of International Law (Mar. 25, 2010). *See also* Mignot-Mahdavi, *supra* note 8, at 28, 38.]

40. Mignot-Mahdavi, *supra* note 8, at 36.

41. Cora Currier, *The Kill Chain: New Details about the Secret Criteria for Drone Strikes and How the White House Approves Targets*, INTERCEPT (Oct. 15, 2015, 7:57 AM), https://theintercept.com/drone-papers/the-kill-chain/.

42. "Of course, whether a particular individual will be targeted in a particular location will depend upon considerations specific to each case, including those related to the imminence of the threat, the sovereignty of the other states involved, and the willingness and ability of those states to suppress the threat the target poses." Koh, *supra* note 39.

43. Mignot-Madhavi, *supra* note 8, at 37.

44. Spencer Akerman, *US to Continue 'Signature Strikes' on People Suspected of Terrorist Links*, GUARDIAN, (July 1, 2016, 6:01 PM), https://www.theguardian.com/us-news/2016/jul/01/obama-continue-signature-strikes-drones-civilian-deaths (quoting a "senior, high-level official" as saying "[w]e continue to reserve the right to take action not just against individual terrorist targets but when we believe we have, for instance, a force protection issue or information to suggest a continued imminent threat.").

45. Mignot-Mahdavi, *supra* note 8, at 9, 38.

strike,[46] their government also used this composite jus in bello/jus ad bellum analysis.[47] Throughout its August 2015 strike campaign, the U.K. continued to propound this admixture narrative to justify its actions in Syria as an "extension of the conflict against ISIS in Iraq."[48] This can further be seen in recent parliamentary reports,[49] as well as statements by Attorney General Jeremy Wright.[50] As these contemporary trends indicate, complex state narratives, such as the PPG and U.K. drone policy, have consistently manipulated traditional principles of warfare to accommodate whatever political aims they wish to advance at the time.

These contemporary examples, when read in line with wider academic commentary, seem to suggest, as Professor Michael Walzer puts it, that "the two rules [of jus ad bellum and jus in bello] are logically independent… but they are not wholly distinct, for the means used in fighting must be understood as part of the original resort to force."[51] Walzer further suggests that "the connection between ad bellum and in bello is, in fact, very close… where the theory of aggression…is a useful guide to the development of the war convention."[52] However, such a position is not without its consequences. As Professor Gabriella Blum notes, one potential consequence of expanding the rules of jus in bello may be an indirect expansion of the grounds for resorting to continuous armed force under jus ad bellum principles. [53]

The existing discourse on the subject thus posits that jus in bello cannot be effectively evaluated without orienting it within the antecedent context of jus ad bellum. The following section shows just how this admixture narrative has the (perhaps intended) consequence of shifting the academic focus away from jus in bello IHL violations, and towards whether there are jus ad bellum justifications for not only engaging in, but also sustaining, drone strike

46. Ewen MacAskill & Richard Norton-Taylor, *How UK government decided to kill Reyaad Khan*, GUARDIAN (Sept. 8 2015, 11:52 AM), http://www.theguardian.com/world/2015/sep/08/how-did-britain-decide-to-assassinate-uk-isis-fighter-reyaad-khan-drone-strike.

47. Mignot-Mahdavi, *supra* note 8, at 38.

48. *Id*.

49. *See, e.g.*, Joint Comm. on Hum. Rts. (JCHR), Report on the Government's Policy on the Use of Drones for Targeted Killings, Report, 2015-16, HL Paper 141/HC 574, ¶ 2.29 (UK).; Intel. & Sec. Comm., UK Lethal Drone Strikes in Syria, Report, 2017, HC 1152, at 5 (UK).

50. Wright Speech, *supra* note 18 (commenting that "[t]he UK was part of the US-led coalition that took action against Al Qaida and the Taliban in Afghanistan in 2001 and it is currently operating in Iraq and Syria on the basis of Self-defense.").

51. Walzer, *supra* note 1. For a thorough counterargument of Walzer's theory, *see* Graham Parsons, *The Incoherence of Walzer's Just War Theory*, 38 SOC. THEORY & PRAC. 663, 663-64 (2012).

52. Walzer, *supra* note 1, at 28.

53. Gabriella Blum, *The Paradox of Power: The Changing Norms of the Modern Battlefield*, 56 HOUS. L. REV. 745, 747 (2019) (writing "whether or not our campaign is considered successful and legitimate under a jus ad bellum review hinges, in part, on whether we can prove this rhetorical commitment in practice. On the Jus in bello front, the same values that demands more other-regarding definitions of what a successful military campaign is designed to achieves also constrains how that campaign can be prosecuted.").

warfare. This encroachment of ad bellum principles of self-defense into the in bello realm of target selection for particular drone strikes is one way in which the in bello violations committed during drone strike campaigns are rendered invisible to the present IHL framework. Again, powerful states have accomplished this blending of logics by espousing the CCF paradigm or derivatives thereof,[54] which they say justifies attacking known or suspected terrorists even when they are not actively engaged in hostilities.

C. The Current Asymmetry of Drone Strike Warfare under the Principle of Distinction within International Humanitarian Law

While the previous section focused on how powerful states have obfuscated the line between jus ad bellum and jus in bello principles, this section addresses the paper's second claim: that such a holistic paradigm, which does not distinguish between ad bellum and in bello principles, makes jus in bello violations of IHL invisible to the current IHL framework. By using the term "invisible" it is here meant that the CCF paradigm and American DOD Law of War Manual, which are *not* universally accepted interpretations of the criterion of Direct Participation in Hostilities, are used to justify the killing of persons not clearly engaging in hostile acts.

This paper focuses specifically on evaluating these violations under the principle of distinction, as defined in the Tadić case.[55] In Tadić, the ICTY held that this principle was enshrined in customary law as "[imposing] an obligation on combatants to distinguish themselves from the civilian population while they are engaged in an attack."[56] The corresponding obligation of the opposing army is to distinguish enemy combatants from the civilian population when conducting military operations, as codified in Additional Protocol 1 to the Geneva Conventions.[57] This article, which both codifies and supplements customary international law, states "…[p]arties to [a] conflict shall at all times distinguish between the civilian population and combatants and between civilian objects and military objectives and accordingly shall direct their operations only against military objectives."[58] Thus, it is the obligation of States to both identify their own combatants and to be certain that they have adequately surveyed the enemy and distinguished its civilians from its combatants before attacking.

The increasing reliance on unmanned aerial vehicle (UAV) technology to conduct the necessary surveillance operations and targeted killings (as

54. *See, e.g.*, LAW OF WAR MANUAL, *supra* note 4.

55. Prosecutor v. Tadić, Case No. IT-94-1-I, Judgement, ¶ 562 (Int'l Crim. Trib. for the Former Yugoslavia May 7, 1997).

56. *Id.; see also* Theodor Meron, *Shakespeare's Henry the Fifth and the Law of War*, 86 AM. J. INT'L L. 1, 21-34 (1992) (providing a thorough historical account of this customary law).

57. *See* Additional Protocol I, *supra* note 5, at art. 48.

58. *Id.*

evidenced by U.S. actions in the "never-ending war"[59] on terror in Pakistan, Yemen, and Afghanistan), demonstrates how vital the target selection analysis is, and how necessary it is for scholars and practitioners to critique it. A wider exploration on "how these weapons may not be used in compliance with the principle of distinction,"[60] is necessary to prevent further IHL abuses. Several academics have argued that the current framework for distinguishing between combatants and non-combatants is actually too outdated to account for the reality of how drone strikes are conducted in the first place,[61] highlighting the need for informed academic discussion on the issue. To fully appreciate the debate requires an understanding of the difficulties of adhering to the principle of distinction in drone warfare, which itself requires a grasp on how the notion of "direct participation in hostilities" is evaluated,[62] as this analysis is at the heart of distinguishing between combatants and non-combatants under the Additional Protocols.

There are currently at least three competing theories of distinction that "co-exist in the legal landscape."[63] The traditional analysis for determining whether a person is an enemy combatant (and thus a valid military target) is the "act-by-act" analysis.[64] Under this self-explanatory paradigm, the relevant enquiry is whether a potential target is presently engaging in activities that either aid or constitute combat.[65] If they are not, then they are a civilian under the principle of distinction.[66]

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59. For an explanation of the term "never-ending war," *see* ALEX LUBIN, NEVER-ENDING WAR ON TERROR 112 (2021). For a more general usage of the term in journalism, *see, e.g.*, Samuel Moyn, *How the U.S. Created a World of Endless War*, GUARDIAN (Aug. 31, 2021, 1:00 AM), https://www.theguardian.com/us-news/2021/aug/31/how-the-us-created-a-world-of-endless-war.

60. *See* Philip Alston (Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions), *Report to the General Assembly*, ¶ 28, U.N. Doc. A/HRC/12/24/Add.6 (May 28, 2010).

61. *See* Derek Jinks, *September 11 and the Laws of War*, 28 YALE J. INT'L L. 1, 21 (2003); *see also* Ryan Goodman*, Why the Laws of War Apply to Drone Strikes Outside "Areas of Active Hostilities" (A Memo to the Human Rights Community)*, JUST SEC. (Oct. 4, 2017), https://www.justsecurity.org/45613/laws-war-apply-drone-strikes-areas-active-hostilities-a-memo-human-rights-community/; Geoffrey S. Corn, *Making the Case for Conflict Bifurcation in Afghanistan: Transnational Armed Conflict, Al Qaeda, and the Limits of the Associated Militia Concept*, 85 INT'L L. STUD. 182, *passim* (2009); Michael N. Schmitt, *Drone Attacks under the* Jus ad Bellum *and* Jus in Bello*: Clearing the 'Fog of Law'*, 13 YEARBOOK INT'L HUMANITARIAN L. 311, 321 (2010) (arguing that within drone warfare, "[d]rones could be used to directly attack civilians or civilian objects in violation of the principle of distinction.").

62. For an in-depth discussion on "direct participation in hostilities" as interpreted by the International Committee of the Red Cross (ICRC), *see generally* Melzer, *supra* note 3.

63. *Id.*; *see also* Mignot-Madhavi, *supra* note 8, at 128.

64. Prosecutor v. Strugar, Case No. IT-01-42-A, Judgement, ¶ 178 (Int'l Crim. Trib. for the Former Yugoslavia July 17, 2008).

65. *Id.*

66. *Id.*; *see also* Additional Protocol I, *supra* note 5, at art. 51.

The second paradigm is best encapsulated by the ICRC's recognition of a non-State actor's potential Continuous Combat Function (CCF).[67] The ICRC defines CCF as "lasting integration into an organized armed group acting as the armed forces of a non-State party to an armed conflict."[68] This requires that an individual's "continuous function involves the preparation, execution, or command of acts or operations amounting to direct participation in

Hostilities…."[69] This paradigm represents a departure from the strict view of "direct participation."

While much academic commentary has focused on evaluating the US targeted drone strikes against the CCF criterion, the Department of Defense (DOD) Law of War Manual actually adopts a somewhat different standard for determining whether an individual is "directly participating in hostilities (DPH),"[70] thereby creating a third paradigm of distinction. Anecdotal evidence suggests that the Law of War Manual's theory of distinction represents a clear departure from the CCF.[71] Thus the U.S. interprets the principle of distinction somewhat differently from other countries, such as the U.K., which still take a similar approach to the ICRC's notion of Direct Participation under a "continuous combat function."

The following section will assess U.S. drone strike operations against these various paradigms, including evaluating U.S. targeting operations against the "membership" criterion set out in the DOD's Law of War Manual. This paper argues that the Law of War Manual repeats a problematic feature of the CCF paradigm, which allows targeting based on "suspicious behavior."[72] Adopting this view of DPH has caused targeting decisions to "move[] away from the material circumstances of warfare,"[73] instead, focusing on the "personal and behavioral characteristics of the target."[74]

Under the Law of War Manual framework, individuals subjected to targeted killings are identified beforehand by drone surveillance, but this

67. This concept was first expounded by Nils Melzer in his expanded work *Interpretative Guidance on the Notion of Direct Participation in Hostilities under International Humanitarian Law*. *see* NILS MELZER, INTERPRETATIVE GUIDANCE ON THE NOTION OF DIRECT PARTICIPATION IN HOSTILITIES UNDER INTERNATIONAL HUMANITARIAN LAW, at n.6 (2009) [hereinafter ICRC Interpretative Guidance].

68. Melzer, *supra* note 3, at 1007.

69. *Id*.

70. *See* ICRC Interpretative Guidance, *supra* note 67, at 9.

71. *Compare infra.* Part II, *with infra.* Part III.

72. Cora Currier & Justin Elliott, *Drone Warfare "Signature Strikes,"* GLOBAL RSCH. (Feb. 27 2013), http://www.globalresearch.ca/drone-warfare-signature-strikes/5324491 (noting that "in these attacks, known as 'signature strikes,' drone operators fire on people whose identifies they do not know based on evidence on suspicious behavior or other 'signatures.'"); *see also* MICAH ZENKO, COUNCIL FOREIGN RELS., REFORMING U.S. DRONE STRIKE POLICIES: SPECIAL REPORT NO. 65, at 12 (2013); *see generally* JEREMY SCAHILL, THE ASSASSINATION COMPLEX: INSIDE THE GOVERNMENT'S SECRET DRONE WARFARE PROGRAM (2017).

73. Mignot-Mahdavi, *supra* note 8, at 81-82.

74. *Id.* At 128; *see also* Alston, *supra* note 60, at 7.

surveillance almost invariably leads to drones "fir[ing] on people whose identities they do not know based on evidence of suspicious behavior or other signatures,"[75] rather than on certain knowledge of a person's participation in hostilities. By contrast, the "ICRC's narrow interpretation of DPH means that many functions performed by a Non-State Armed Group (NSAG) do not qualify as a CCF, even if they are critical to the group's combat operations."[76] The U.S. position, which represents a clear departure from this, thus "[broadens] the factors that may indicate membership of an NSAG to include the performance of 'tasks on behalf of the group similar to those provided in combat, combat support or combat service support role[s] in the armed forces of a state."[77]

Targeting under the Law of War Manual focuses on two behavioral criteria not condoned by the CCF: namely, (1) the "suspicious gathering"/membership criterion, and (2) the "military aged male" criterion. The DOD Law of War Manual is thus expansive in the "breadth of the criteria [it] lists as potential indicators of membership [in a NSAG]."[78] This naturally begs the question, how are these "behavioral characteristics" actually evaluated under the State rhetoric employed in such frameworks as the CCF and the DOD's Law of War Manual?

D. Expansion of the Principle of Distinction under Personality-based Signature Drone Strike Operations

This section demonstrates how the principle of distinction is continually jeopardized by over-expansive, self-serving State interpretations thereof. The paper focuses on two behavioral criteria: namely, (1) the "suspicious gathering"/membership criterion, and (2) the "military-aged male" criterion. The argument takes as its base certain instances where drone strikes have led to mass civilian casualties because the "suspicious behavior" analysis was used in target selection. This anecdotal evidence highlights the dangerousness and potential consequences of this form of targeting. [79]

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75. Currier & Elliot, *supra* note 72 (commenting that "drone operators fire on people whose identities they do not know based on evidence of suspicious behavior or other "signatures.").

76. Jenny Maddocks, *Membership in a Non-state Armed Group in the DOD Law of War Manual*, JUST SEC., (Feb. 26, 2024), https://www.justsecurity.org/92613/membership-in-a-non-state-armed-group-in-the-dod-law-of-war-manual.

77. *Id.* ("The DOD Manual represents a clear departure from the ICRC guidance and the notion of CCF. It addresses the perceived imbalance with state armed forces by broadening the factors that may indicate membership of an NSAG to include the performance of 'tasks on behalf of the group similar to those provided in a combat, combat support, or combat service support role in the armed forces of a state.'"); *see also* LAW OF WAR MANUAL, *supra* note 4, at § 5.7.3.2.

78. See Maddocks, *supra* note 76.

79. Mary Ellen O'Connell, *Seductive Drones: Learning from a Decade of Lethal Operations*, 21 J. L., INFO. & SCI. 116, 129-32 (2011); *see also* Jennifer Daskal, Ashley Deeks, & Ryan Goodman, *Strikes in Syria: The International Law Framework*, JUST SEC. (Sept. 24,

1. The "Suspicious Gathering" Criterion in Drone Strike Targeting: The Al-Majala, Al-Aulaqi, and Pakistani Drone Operations

The "suspicious gathering/membership" standard has itself been suspect since its inception. Under this standard, anyone who appears to be gathering with a verified target is also considered an acceptable target of a drone strike.[80] The Law of War Manual lists potential indicators as including "travelling with members of [a NSAG] to remote locations or while the group conducts operations."[81] More broadly still, the manual notes that individuals who are not members, but participate sufficiently in activities or substantially support operations "may be regarded as constructively part of the group, even if they are, in fact, not formal members of the group."[82] The theory behind this criterion is that anyone who demonstrates behavioral indicators of membership in a NSAG, such as gathering with known members of that group, is targetable under these rules. However, even if one accepts the premise, this theory is severely limited by the ability of drone surveillance to accurately identify the purposes for which individuals are gathering or associating. The Law of War Manual thus obviously fails to account for important realities: people often interact with others who do not share their occupation, beliefs, or political affiliations, whether this be at a wedding, or on the street, or in some other public forum.[83]

The problems with the suspicious gathering theory are exemplified by the 2009 drone strike of Al-Majala in Yemen.[84] The actual target of these strikes were known Al-Qaeda fighters, and the U.S. military did allegedly kill 14 such persons with a tomahawk missile carrying cluster munitions.[85] However, the strike also resulted in the deaths of 41 civilians (including 9 women and 21 children) on the day of the strike, while four more civilians died later, after contacting some of the cluster bomb's unexploded

2014), https://www.justsecurity.org/15479/strikes-syria-international-law-framework-daskal-deeks-goodman; Jinks, *supra* note 61, at 1.

80. JAMES CAVALLARO, STEPHAN SONNENBERGN & SARAH KNUCKEY, INT'L HUM. RTS. AND CONFLICT RES. CLINIC AT STANFORD L. SCH. & GLOBAL JUST. CLINIC AT N.Y.U. SCH. L., LIVING UNDER DRONES: DEATH, INJURY, AND TRAUMA TO CIVILIANS FROM US DRONE PRACTICES IN PAKISTAN 15 (2012) [hereinafter LIVING UNDER DRONES].

81. See LAW OF WAR MANUAL, *supra* note 4, at § 5.7.3.1.

82. *See id*., at § 4.18.4.1.

83. LIVING UNDER DRONES, *supra* note 80, at 95-99.

84. *Between a Drone and Al-Qaeda: The Civilian Coast of U.S. Targeted Killings in Yemen*, HUM. RTS. WATCH (Oct. 21, 2013), https://www.hrw.org/report/2013/10/22/between-drone-and-al-qaeda/civilian-cost-us-targeted-killings-yemen.

85. *US/Yemen: Investigate Civilian Deaths from Airstrikes*, HUM. RTS. WATCH (Dec. 17, 2013, 12:00 AM). Notably, the use of cluster munitions is itself a violation of international humanitarian law due to the likelihood that civilian casualties will result from unexploded ordinance from the "cluster." *See* Convention on Cluster Munitions, *opened for signature* Dec. 3, 2008, 2688 U.N.T.S. 39 (entered into force Aug. 1, 2010). Notably, the United States is not a signatory to the Convention against Cluster Munitions, and the attacks on Al-Majala took place before the Convention entered into force.

ordinance.[86] Notably, the civilians killed were not engaged in any activities with the targets of the attack. They were merely in the vicinity when the strike was authorized and therefore fell within the ambit of dynamic pre-strike targeting criteria.[87] These individuals were verified not to have been taking part in hostilities at the time, and were merely existing in an urban space near the intended victims of this strike. It is important to keep in mind that the strike was authorized with the knowledge that these innocent victims were nearby, in direct violation of IHL.[88]

Had the "act-by-act" criterion been applied to determine whether the Al Qaeda members were "direct participants in hostilities" at the time of the strike, no missiles would have been fired, and no civilians injured. The difficulty that the Law of War Manual seeks to address is how to prevent terrorist activity *before* it happens by disrupting it in the planning phase; however, the unacceptable side-effect of this approach is that mass civilian casualties like those observed at Al-Majala become much more likely. The Al-Majala incident thus demonstrates why traditional IHL has taken a more cautious approach to evaluating targets under the principle of distinction.

However, even in the wake of the mass civilian casualties, the U.S. doubled down on its approach. Harold Koh, former Legal Advisor to the U.S. State Department, claimed that the operations at Al-Majala were conducted "consistently with international humanitarian law,"[89] which was important to justify the strikes to both the international community and to American citizens. Koh went on to note that the "[U.S.] Supreme Court has held" that IHL "governs the Non-International Armed Conflict (NIAC) in which the United States is currently engaged against Al Qaeda and associated forces."[90]

Setting aside, for the moment, that these strikes plausibly violated Article 51(5) of Additional Protocol I, this paper takes issue with Koh's claims for obvious reasons: if one were to accept this legal rhetoric, one would also have to accept one of two particular legal conclusions that follow from Koh's position: either (i), that the current permissive targeting practices of the U.S., which expand the principle of distinction enough to allow for the targeting of persons who are civilians under the act-by-act analysis, are justified under current IHL; or (ii), that IHL, as it currently stands, is ineffective at determining who should be a real target for signature strikes.

Either of these conclusions would be problematic for International Humanitarian Law writ large. However, as this paper will make clear in the

86. *US/Yemen: Investigate Civilian Deaths from Airstrikes*, *supra* note 85.

87. *Id.*

88. Additional Protocol I, *supra* note 5, at art. 51(5)(b).

89. *Authorization for the Use of Force after Iraq and Afghanistan*, 113th Cong. 2 (2014) (statement by Harold Koh, former State Dep't Legal Advisor); *see also* Press Release, White House Office of the Press Sec'y, Background Briefing by Senior Administration Officials on the President's Speech on Counterterrorism (May 23, 2013) (available at https://obamawhitehouse.archives.gov/the-press-office/2013/05/23/background-briefing-senior-administration-officials-presidents-speech-co).

90. Koh, *supra* note 89.

following case studies, both the Law of War Manual and the CCF have concerningly developed in line with the former conclusion, which means that civilians will continue to be put at risk for as long as these practices persist. This raises specific concerns on the way that powerful States like the U.S. are assessing who is targetable as an individual.

To further explore the matter, consider the case of the American-born Anwar al-Aulaqi,[91] who was a dual U.S.-Yemeni citizen targeted in a "signature strike." As was the case in Al-Majala, Al-Aulaqi was not the only person to die in the strike that targeted him.[92] Rather, his vehicle was targeted approximately five miles outside the Yemeni town of Khashef, resulting in the deaths of everyone inside.[93] The U.S. justified the drone strike by claiming that Al-Aulaqi was an "imminent threat,"[94] because he was a member of Al Qaeda,[95] while those traveling with him would either meet the same criterion, or would be part of a suspicious gathering. In his recent book "The Drone Memos: Targeted Killing, Secrecy and the Law," Jameel Jaffer provides evidence confirming that this is the U.S. Government's official position on the matter. Jaffer publishes, virtually in its entirety, a memorandum from the U.S. Department of Justice's Office of Legal Counsel to the Attorney General, which states that a "senior operational leader" of Al-Qaeda, or of any associated force, would be a "hostile, imminent threat," thereby qualifying them as a direct participant in hostilities.[96]

The strike on Al-Aulaqi, and the rationale used to justify it, actually passes under the CCF paradigm as well. According to the ICRC, "individuals whose continuous function involves the preparation, execution, or command of acts or operations amounting to direct participation in hostilities are assuming a continuous combat function."[97] Thus, the U.S. policy[98] of carrying out a signature strike on a person who is "planning, authorizing, or preparing for terrorist attacks" is acceptable under the CCF framework, as well as the

91. *See* David Goodman, *American Who Waged 'Media Jihad' Is Said to Be Killed in Awlaki Strike*, N.Y. TIMES (Sept. 30, 2011), https://archive.nytimes.com/thelede.blogs.nytimes.com/2011/09/30/american-who-waged-media-jihad-is-said-to-be-killed-in-awlaki-strike.

92. *Id.*

93. Jennifer Griffin, *Two U.S.-Born Terrorists Killed in Drone Strike*, FOX NEWS (Sept. 30, 2011, 4:43 AM), https://www.foxnews.com/world/two-u-s-born-terrorists-killed-in-cia-led-drone-strike.

94. *U.S. May Kill Americans Abroad Who Are Mortal Threat*, TIMES (London) (Mar. 26, 2012, 12:01 AM), https://www.thetimes.co.uk/article/us-may-kill-americans-abroad-who-are-mortal-threat-72fhzk5mzz6.

95. Robert Chesney, *Who May be Killed? Anwar al-Awlaki as a Case Study in the International Legal Regulation of Lethal Force*, 13 YEARBOOK INT'L HUMANITARIAN L. 3, *passim* (2010).

96. *See* JAMEEL JAFFER, THE DRONE MEMOS: TARGETED KILLING, SECRECY AND THE LAW 86-89 (2016) (quoting Memorandum from the U.S. Dept. of Just. Office of Legal Counsel to the U.S. Att'y Gen. (July 16, 2010)).

97. *Melzer*, *supra* note 3, at 1007.

98. Jaffer, *supra* note 96, at 213-214.

Law of War Manual, because such an individual meets the criteria for "lasting integration" under the laws governing DPH.

At first, the case does not seem as alarming as the strikes at Al-Majala. There were far fewer deaths, and none of the injured appear to have been women or children. However, this situation raises broad questions about the principle of distinction under the U.S.'s targeting paradigm. It is worth asking whether an individual should be considered a direct participant in hostilities when they are not actively engaging in combat, nor performing any actions which obviously further a combat effort. Once again, it should be restated that there are risks that come with targeting persons not *presently* engaging in such acts, including the risk that the person has been misidentified, or that they are near or co-mingled with a civilian population. But even beyond that, the notion of DPH is in place not only to minimize collateral damage, but to minimize the risk that a given use of force will not comply with IHL as it is interpreted by the appropriate judicial organs. This is the reason why the act-by-act paradigm of DPH is so conservative in its assessment of *who* qualifies as a direct participant in hostilities.

An argument can be made that the CCF and other State paradigms for interpreting IHL were developed with the aim of targeting people who are truthfully civilians by broadening the principle of distinction under IHL in a calculated manner. The CCF paradigm does this by introducing a pretense of objectivity and scientific reasoning into what is truly a subjective assessment. As demonstrated in the case studies above, seemingly harmless behaviors, such as "membership" in a specific group or "gathering" near such group members, qualify persons not otherwise engaged in hostilities as combatants. In so doing, the CCF paradigm allows powerful State actors to target civilians methodically and sinisterly while still justifying the legality of its practices under the principle of distinction.

As noted previously, one reason powerful states can conduct the drone strikes that they do under these wide and flexible frameworks is because they are able to claim that the jus in bello principle of distinction is satisfied by the CCF, which takes as its theoretical basis the jus ad bellum principle of anticipatory self-defense. Using this complex narrative, which focuses heavily on why the attack took place (jus ad bellum), as opposed to focusing on how the law governs continuous combat once the warfare is underway (jus in bello), allows states to justify their actions by shifting focus away from the targeting criteria they use for ongoing strikes, and onto the criteria they used for entering the "war" writ large, thus making these violations invisible to the wider gaze of the legal community.

2. The Military-Aged Male Criterion in Drone Strike Targeting: The Datta Khel Drone Strikes

Under the Obama administration, it was revealed that tremendous numbers of civilian casualties caused by drone strikes were likely going

unreported.[99] The reason for the under-reporting was that persons charged with evaluating the casualties of drone strike operations were instructed to count anyone who was a "military-aged male" as an enemy combatant, rather than a civilian.[100] This section demonstrates how using the "military aged male" criterion when selecting targets for drone strikes contributes to making jus in bello violations "invisible" to IHL.

Whether the military-aged male criterion has been used in selecting targets for strikes, or rather only as a means of reporting casualties, remains unverified. However, we are still able to ascertain certain factors that may play a substantial role in the decision to launch a "signature strike" by looking at who has been targeted in such strikes, and how the identities of the victims correspond to official State narratives surrounding the strikes in question.[101] Upon so doing, it becomes clear that the military-aged male criterion makes up part of the "pattern of life"[102] analysis that the Obama Administration applied when deciding whether to authorize drone strikes from 2008-2016. The "military-aged male" criterion seeks to justify targeting "groups of men who bear certain signatures, or defining characteristics associated with terrorist activity, but whose identities aren't known."[103] In other words, strikes are authorized "with no substantial intelligence regarding [the] actual identify or affiliations [of the targets],"[104] but knowledge only of their age, sex, and physical proximity to suspected targets.

This results in devastating effects on communities where these strikes are taking place. The conditions of such communities have been thoroughly described by the report *Living Under Drones*, a joint journalistic venture undertaken by Stanford University and NYU. As the report makes clear, the official U.S. claims that strikes resulted in "minimal downsides or collateral impacts" is false.[105] The report notes that strikes were "targeting rescuers and

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99. Jo Becker & Scott Shane, *Secret 'Kill List' Proves a Test of Obama's Principles and Will*, N.Y. TIMES (May 29, 2012), https://www.nytimes.com/2012/05/29/world/obamas-leadership-in-war-on-al-qaeda.html.

100. *Id.*

101. There is no official or authoritative legal source that explicitly espouses a "military aged male" criterion in the continuous combat function (CCF) framework. The term itself is controversial and not part of the legal definitions provided under the International Committee of the Red Cross's (ICRC's) "Interpretative Guidance on the Notion of Direct Participation in Hostilities under International Humanitarian Law." However, piecing together information from various sources provides us an indication of this criterion's existence and its usage.

102. Alston, *supra* note 60, at ¶ 82; *Cf.* Jane Mayer, *The Predator War*, NEW YORKER (Oct. 19, 2009) (noting the tremendous number of civilian casualties resulting from incidental contact with Al Qaeda members in Pakistan).

103. DANIEL KLAIDMAN, KILL OR CAPTURE: THE WAR ON TERROR AND THE SOUL OF THE OBAMA PRESIDENCY 41 (2012); *see also* John O. Brennan, former C.I.A. Director, Speech at Harvard Law School: Strengthening our Security by Adhering to our Values and Laws (Sept. 16, 2011), https://obamawhitehouse.archives.gov/the-press-office/2011/09/16/remarks-john-o-brennan-strengthening-our-security-adhering-our-values-an).

104. Klaidman, *supra* note 103, at 41; *see also* Kevin J. Heller, *One Hell of a Killing Machine: Signature Strikes and International Law*, 11 J. INT'L CRIM. JUST. 89, 89 (2013).

105. LIVING UNDER DRONES, *supra* note 80, at v.

funeral-goers,"[106] populations which, irrespective of who they may be, could not have been presently engaging in hostilities. It should thus be obvious that it is legally untenable for this criterion to be used as a way of identifying "combatants" under the principle of distinction. The use of simplistic, binary factors such as sex and gender,[107] and the over-broad category of "military-age" do not remotely correlate with actual hostility. The following case-study shows how inaccurate this targeting criterion is, and how fallacious is the legal rationale it props up.

In March of 2011, at least three drone strikes were carried out in Datta Khel, Pakistan.[108] The target of the strikes was a meeting of community leaders, all male, known as a "jirga."[109] The jirga was convened to discuss property rights in a nearby chromium mine, and was approved by the Pakistani military, who clearly did not see it as a terrorist threat of any kind.[110] Unfortunately, the fact that the jirga consisted of around 50 military-aged males made the entire gathering a target for a U.S. drone strike under the "military-aged male" criterion. The first of the two strikes took place on March 16th, and killed 4 or 5 people just outside the city.[111]

When the second strike was launched on the following day, it struck the middle of the jirga, killing as many as 42 people and injuring a further 14.[112]Among the victims of the strike were local police officers, tribal elders, and laborers, all of whom would have been classified as civilians under internationally accepted interpretations of IHL.[113] While the New York Times reported that 19 casualties were likely Taliban fighters, 30 were undeniably innocent men with no connection to terrorist activity whatsoever.[114] This

106. *Id.* at 34 (citing Chris Woods & Christina Lamb, *Obama Terror Drones: CIA Tactics in Pakistan Include Targeting Rescuers and Funerals*, BUREAU OF INVESTIGATIVE JOURNALISM (Feb. 4, 2012), http://www.thebureauinvestigates.com/2012/02/04/obama-terror-drones-cia-tactics-in-pakistaninclude-targeting-rescuers-and-funerals/).

107. The gendered nature of drone strikes has been noted in RAY ACHESON, RICHARD MOYES & THOMAS NASH, SEX AND DRONE STRIKES: GENDER AND IDENTIFY IN TARGETING AND CASUALTY ANALYSIS (2014), https://www.article36.org/wp-content/uploads/2014/10/sex-and-drone-strikes.pdf.

108. *See Drone Strikes on a Jirga in Datta Khel*, FORENSIC ARCHITECTURE (Oct. 25, 2013), https://forensic-architecture.org/investigation/drone-strikes-on-a-jirga-in-datta-khel. For a discussion of civilian deaths in Pakistan as a result of U.S. drone strikes generally, *see* Chris Woods, *Drone War Exposed—The Complete Picture of CIA Strikes in Pakistan*, BUREAU OF INVESTIGATIVE JOURNALISM (Aug. 11, 2014), https://www.thebureauinvestigates.com/stories/2011-08-10/drone-war-exposed-the-complete-picture-of-cia-strikes-in-pakistan; JEREMY SCAHILL, DIRTY WARS: THE WORLD IS A BATTLEFIELD (2013).

109. *Drone Strikes on a Jirga in Datta Khel*, *supra* note 108.

110. *Id.*

111. *Id.*

112. *Id.* Actually, the jirga consisted of two circles of about 25 men each, and two missiles were launched, one into the middle of each circle. *Id.*

113. *See* LIVING UNDER DRONES *supra* note 80, at 158.

114. *Id.*

highlights the dangerousness of the Law of War Manual's over-simplified target-selection process, and shows just how devalued human life becomes under such permissive targeting paradigms.

Again, it is worth emphasizing that powerful States continue to make seemingly causal links between racialized, gendered stereotypes and terrorist activity. The "targeting criteria" at issue are, by themselves, harmless characteristics; however, when cast under the wider narrative of the war on terror, these innocuous traits of race and gender become a proxy for terrorism itself, rendering an otherwise innocent person an "imminent threat" under the CCF or DOD frameworks. Again, it is worth reiterating that strikes such as those in Datta Khel may result in the deaths of individuals that can be lawfully targetable, but the military is carrying out strikes on more non-targetable individuals than potential terrorist threats; and, they are doing so simply because these individuals are in the vicinity of potential bad actors and may or may not be men of military age.

It is further worth noting that the official U.S. report on the Datta Khel strike claimed that all the men killed were legitimate targets under the laws of NIAC, stating that "these people weren't gathered for a bake sale…. They were terrorists."[115] However, as both *Living Under Drones* and Special Rapporteur Ben Emerson later noted,[116] these men were, in fact, civilians under IHL. Not only were the attacks illegal for violating Additional Protocol I, article 51(5), which prohibits strikes that will result in the deaths of civilians, but they also violated even the most permissive principle of distinction under Additional Protocol II, article 13(3). Even under the CCF or DOD targeting paradigms, at least 30 of the men killed had never engaged in, planned, or aided any hostile activity.

However, according to the official U.S. narrative, the strikes did not lead to any civilian causalities, but instead targeted a group of heavily armed men, thus falling within the permissible scope of the Law of War Manual's targeting paradigm. [117] This evinces the process that the U.S. and other powerful countries, use to erase their IHL violations. Powerful States revise the criteria under which the IHL principle of distinction is evaluated using sophisticated rhetoric and tortuous legal rationalizing. By doing so, these States virtually erase the many violations of IHL that they commit, and render the deaths of the many civilians that they re-designate as combatants invisible to the legal process.

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115. Salman Masood & Pir Zubair Shah, *C.I.A. Drones Kill Civilians in Pakistan*, N.Y. TIMES, (March 17, 2011), https://www.nytimes.com/2011/03/18/world/asia/18pakistan.html.

116. Ben Emmerson (Special Rapporteur on the Promotion and Protection of Human Rights and Fundamental Freedoms while Countering Terrorism), *Report to the General Assembly*, ¶ 50, U.N. Doc. A/HRC/25/59/ (Mar. 11, 2014).

117. Scott Shane, *Contrasting Reports of Drone Strikes*, N.Y. TIMES (Aug. 11, 2011), https://www.nytimes.com/2011/08/12/world/asia/12droneside. As Shane comments in his article "Obama administration officials say the Central Intelligence Agency's drone program in Pakistan has killed about 600 militants and no civilians since May 2010. The Bureau of Investigative Journalism in London […] counted at least 45 civilian deaths."

Here, the first claim of this paper can be fully realized: complex state narratives encompassing admixture justifications of warfare are not flawed by accident. Instead, this contemporary legal framework is a deliberate and meticulously crafted legal exercise to allow for the widening of the scope of who can be classified as combatants under the principle of distinction according to jus in bello norms and international humanitarian treaty law. This practice suggests an administrative legal policy that defeats the protections which the principle of distinction is supposed to guarantee. It does so by curating sophisticated legal narratives borrowing from customary international law, (i.e., jus ad bellum norms that support the practice of anticipatory warfare), and leaves other violations (i.e., jus in bello violations of the principle of distinction) invisible to the public and academic gaze.

This analysis demonstrates just how asymmetrical horizontal NIAC warfare has become, and how easy it is for powerful states to render their own violations of the laws of war invisible, while amplifying the crimes of their enemies. The following section seeks to explain how issues with physical and documentary evidence further contribute to making these violations of IHL invisible, and then posits a solution to the problem: digital forensic analysis, which can synthesize what little evidence a drone strike leaves and make the invisible visible again.

II. HOW DIGITAL FORENSICS CAN PROVIDE COUNTER-NARRATIVES TO RESTORE VISIBILITY TO INVISIBLE VIOLATIONS OF JUS IN BELLO

A. Opposing Powerful State Narratives: Problems with Evidence and the Counter-Narrative

The previous section examined how drone strikes can result in violations of international humanitarian law that are "invisible" to the legal process, because they are hidden under complex legal justifications that effectively redefine civilians as lawful targets for drone strikes. This section considers how these violations are made more literally invisible by the fact that they are carried out covertly, and leave little to no material evidence of their occurrence. The section then tests whether and how digital forensics can act as a new evidentiary mechanism for identifying violations of the laws of warfare in drone strikes, incorporating insights gained in the previous section regarding invisible jus in bello violations. Specifically, this section addresses how the unique issues created by NIAC drone warfare can be made "visible" using these new digital forensic methodologies. In order to understand this, it will first be necessary to clarify what digital forensics actually is and how it operates.

Digital forensics is an emerging methodology of evidence-gathering "that focuses on identifying, acquiring, processing, analyzing, and reporting on data stored electronically."[118]

Disciplines such as Forensic Architecture[119] utilize this methodology to investigate patterns and practices of violence that might have otherwise been erased or hidden due to the undetectable nature of the particular brand of violence at issue. Part of the work of this methodology is to reconstruct the narrative of drone strikes through both the little residue left by the strike and the public narrativizing that takes place around that residue.[120] This narrative is often shrouded in secrecy and absence, casting the strikes as "intangible events," from which witnesses are spatially and intellectually distanced.[121] This paper posits that the work of digital forensics, with respect to drone strikes, should be to utilize the digital record of the strikes (in the form of videos, photographs, and first-hand accounts published on social media) in conjunction with the absences created by the drone strikes (i.e., the craters, unidentifiable body parts, and the chilling effect on community participation) in order to form a complete picture of the strikes, their inhumanity, and the violations of IHL that they perpetrate.

This claim warrants further explanation. In the context of drone strikes, digital forensics becomes important within NIAC warfare for two reasons: first, there are seldom any accessible records of the planning and execution of drone strikes because such communications are generally State secrets;[122] and second, the strikes themselves leave relatively little evidence, apart from the obvious destruction wrought by the explosions created.[123] What little information is eventually made public about the drone strikes is primarily "snippets of information, rumors and debris."[124] This poses significant problems for evidence collection, because written information pertaining to how the strike was conducted is not the only thing lacking. There is also a lack of literal debris, which severely limits the amount of physical evidence that can be martialed in court. This almost-total lack of evidence thus undermines the idea that violations of IHL committed through drone warfare

118. *Digital Forensics*, INTERPOL (last visited Apr. 16, 2024), https://www.interpol.int/en/How-we-work/Innovation/Digital-forensics.

119. EYAL WEIZMAN, FORENSIC ARCHITECTURE: VIOLENCE AT THE THRESHOLD OF DETECTABILITY (2017). Ongoing investigations by the organization "Forensic Architecture," established by Weizman to employ his theories in practice, can be found at https://forensic-architecture.org.

120. Oliver Kearns, *Secrecy and absence in the residue of covert drone strikes*, 30 Political Geography 1, 2 (2016).

121. *Id.*

122. Jamie Allison, *The Necropolitics of Drones*, 9 INT'L POL. SOCIO. 113, at n.1 (2015) (noting how secrecy makes it "impossible to be sure exactly how many people have been killed by drones.").

123. *Cf. Drone Strikes on a Jirga in Datta Khel*, *supra* note 108.

124. Kearns, *supra* note 120, at 14.

can be effectively investigated ex post facto, using only conventional means of evidence gathering.[125]

Here, digital forensics assists in reconstructing the narrative of what has happened by leveraging the data-gathering powers of technology to pull together the myriad fragments of information about a particular strike that exist scattered throughout the web. By utilizing an amalgamation of satellite images, news fragments, and witness reports, Digital Forensic investigators can synthesize a convincing narrative that not only explains the absences left by drone strikes, but possibly even begins to fill them.[126]

But the absences created by drone strikes are not the only absences that digital forensic evidence evinces. There is another important absence that digital forensic evidence can help bring to light: namely, the absence of an obvious justification for initiating a drone strike in the first place. Civilian eye-witness accounts help to illustrate the gaps in both narrative evidence and stakeholder perspectives as to what happened during these strikes. Covert drones enter the public airspace without the local populace realizing, until it is too late to react, and the attack has already been perpetrated.[127] The only referents left for witnesses to use to anchor their accounts are the scorch marks and craters left by the strikes, which are technically evidence only of absence, rather than of the presence of drones.[128] Further, it is worth reiterating that drone strikes do not target people engaged in combat, but seemingly normal people going about their daily lives. From the perspective of local civilians, then, drone strikes are not *actions* that are *done* in some positive sense: they are the *erasure* of things and people that *were*. From the perspective of a civilian, the principle of distinction is not honored when a Hellfire missile crashes into their community and kills dozens of seemingly innocent people; further, no State officials from the perpetrating state ever come to claim or explain the event. In the end, all one is left with is a hole in the ground, and a gap in the narrative logic as to why the crater is there where there should be a home, a car, or a member of the community.

Here, the "legal invisibility" discussed in the previous section intersects with the "evidentiary invisibility" posited in this section. By focusing on the lack of material evidence available to prosecute violations of human rights caused by drone warfare, we can better understand how the invisible nature of these jus in bello violations presents a barrier to the prosecution of war crimes and crimes against humanity. Further, by critically evaluating the

125. *Id*. at 2; *Cf.* Stephanie Carvin, *Getting Drones Wrong*, 19 INT'L J. HUM. RTS. 127, (2015).

126. *Kearn*, *supra* note 120, at 4.

127. *Id.* at 4-5.

128. *See* Eyal Weizman, *Violence at the Threshold of Detectability*, 64 E-FLUX 36, 37 (2015), https://www.e-flux.com/journal/64/60861/violence-at-the-threshold-of-detectability. In this article, Weizman analyses how CIA image analysts Dino Brugioni and Robert Poirer evaluated "four blurry marks on the roof of a crematorium building," to infer the presence of drones).

material aspects of the phenomenon of warfare,[129] this paper shows how powerful States leverage the lack of material evidence left by drone strikes to escape the discourse of responsibility.

But these same modalities of invisibility that seem to hamper prosecution can actually be used to construct a counter-narrative that opposes the official State narratives surrounding drone strikes. By showing that the states who commit these acts have not produced their own evidence to justify the strikes, and by reconstructing the circumstances of the strikes themselves to show a lack of basis for the attacks, one can turn the absence of evidence itself into a form of evidence of a violation of jus in bello norms.

B. Materiality and the (Lack of) Physical Evidence Left in the Wake of International Humanitarian Law Violations

Even clandestine and secret operations leave material traces in their wake. These traces of evidence account for how covert strikes have materialized in the public sphere in the first place. It is through the reconstructive work of digital forensics teams, in conjunction with inside sources, that violations of jus in bello norms perpetrated by powerful State actors have come to light. Many of these evidentiary markers exist in a constant state of disintegration while most of them exist "on the brink of immateriality."[130] The work of digital forensics is thus difficult to overstate, as digital evidence can provide a more stable record of otherwise-ephemeral evidence.

Within the context of drone strikes, many of the material markers of the attack consist of smoke from the blast rising into the air, smoldering rubble from destroyed buildings and objects, and ambiguous markings left on the landscape from the blast impact. When deployed in legal discourse as evidence of a drone strike, these markers signify the "dissimilarity" of the evidence to the actual event that took place. This "residue of covert action …signif[ies] that the event has passed unseen,"[131] rather than that it has been recorded in some meaningful way. This "evidence of absence" thus limits the number and types of counter-narratives that can be offered to combat the dominant State narratives surrounding the event.

Another issue that diminishes the capacity of independent investigators to uncover substantive evidence from drone strikes is the contradictory statements made by eye witnesses in the wake of the event. These statements form a large part of the narrative that courts or independent investigators will

129. This paper builds off of several other philosophical works that have addressed the confluence of materiality, technology, and sociopolitical structures, specifically calling upon "actor-network theory." *See generally* Bruno Latour, *Technology Is Society Made Durable*, *in* A SOCIOLOGY OF MONSTERS: ESSAYS ON POWER, TECHNOLOGY AND DOMINATION (John Law ed., 1991); STEWART CLEGG & MIGUEL PINA E CUNHA, MANAGEMENT, ORGANIZATIONS AND CONTEMPORARY SOCIAL THEORY (Stewart Clegg & Miguel Pina e Cunha eds., 2019).

130. Kearns, *supra* note 120, at 15.

131. *Id*. at 2

hear regarding what has occurred. This is problematic because, again, these attacks occur covertly, and are over in an instant, meaning that eye witnesses see very little, and thus have little to relate.[132] Further, by the time a prospective witness tells their story to a tribunal investigator (who will then draft a written statement of this account second-hand), they will have already been interviewed multiple times, and will have given several pre-trial statements that will likely be at least somewhat inconsistent, given the traumatizing nature of the event they witnessed.[133]

Still, the "unofficial insights and speculations"[134] that these witnesses have to offer form the basis of the prosecution's argument if and when these IHL crimes eventually make it to a court or tribunal, so corroborating them as much as possible is crucial to the proper administration of justice.

However, the problem that these incoherent statements create is only compounded by the lack of corroborative material evidence, which makes it difficult for the communities and individuals who are victimized to prove their cases against whichever State has perpetrated or condoned the attack in question. The inconsistencies between one witness statement and another, or between witness statements and the material evidence, only further weaken the counter-narratives offered against the sophisticated legal rationales adopted by States who wish to disclaim responsibility. The counter-narratives that do emerge from the disjointed evidence are simply unlikely to sway a tribunal, especially because the judicial process works in "the register of the visible [and] audible."[135] The lack of material and witness evidence means that concrete, grounded, and embodied experiences of violence cannot be made visible to the law, or to the courts and tribunals responsible for upholding it.

To make matters more consequential, drone strike operations happen as an iterative process.[136] This means that information obtained after one strike (including in post-strike investigations) feeds into how the next generation of strikes will be conducted. Thus, IHL violations perpetrated in one strike are likely to cause the same type of violation to occur again in later strikes if they are improperly characterized as "legal." Understanding first how these violations take place, and second how they self-perpetuate, provides the

132. *Id.* at 9.

133. *See*, *e.g.*, *Witnesses*, FORENSIC ARCHITECTURE (Oct. 22, 2020), https://forensic-architecture.org/programme/exhibitions/the-architects-studio-forensic-architecture.

134. Kearns, *supra* note 120, at 4.

135. Mignot-Mahdavi, *supra* note 8, at 84.

136. *See, e.g.*, Thomas Gregory & Larry Lewis, *Opportunity Missed: New Zealand's Defense Force's Order on Civilian Harm in Wartime*, JUST SEC. (Mar. 31, 2021), https://www.justsecurity.org/75605/opportunity-missed-new-zealand-defense-forces-order-on-civilian-harm-in-wartime (writing that "The failure to actively link these two processes can lead to a vicious cycle—a weakness in detecting civilian harm followed by a cognitive bias that civilian harm was unlikely to occur since it was not detected. As well as representing good military practice to learn and improve, such a process could also be seen as a way to fulfill Additional Protocol I's obligations to take all feasible precautions to minimize loss of civilian life.").

international community with a further sense of the importance of independent fact finding. Such fact-finding helps to shed light on how and when targeting procedures incorrectly apply the LOAC, and contributes to the accuracy of data that is collected in this iterative feedback loop. As Drs. Thomas Gregory and Larry Lewis have commented, "the failure to link these two processes can lead to a vicious cycle," because cognitive bias is likely to follow and feed into the regenerative process on drone strikes in active warfare when civilian harm is left undetected.[137]

C. Utilizing Digital Forensics as a Fact-Finding Methodology for Making Hidden Violations of International Humanitarian Law Visible

The previous sections have analyzed how drone strikes are legitimized under the CCF and Law of War Manual using "behavioral"[138] indicators of hostility to designate non-combatants as active hostiles, and how these violations are made invisible by the dematerialization of the spaces in which they occur. This section offers an explanation as to how digital forensic evidence can help compensate for the fact-finding issues presented by the invisible violations of jus in bello norms discussed above.

To do this, it will be helpful to use a case study as an illustration. Recall the Datta Khel strikes from the previous section. These strikes were carried out in an open, public space, which meant that there was more of a chance for witnesses to see what had occurred, but also that there was less rubble or other destructive evidence of the strike than there might have been if the attack had targeted a building or vehicle.

Forensic Architecture (FA), which is both a discipline and an organization created by Professor Eyal Weizman, applied the methodology of digital forensics to reconstruct the Datta Khel strikes, using satellite imagery and video footage of the aftermath of the strike as the focus of its reconstruction.[139] Using digital forensics, FA was able to deduce the precise location where each of the two missiles had detonated, and from there reconstruct the position of the jirga.[140] The positioning of the members of the jirga solidified for investigators that the operators of the drones could have easily seen the activities taking place and roughly who was at the meeting.[141] This means that they would have known that the people involved were mostly civilians under any theory of distinction, and that the group was not presently

137. *Id*.

138. "Against the acceptance of CCF, one could argue that in such a world, basing lethal decision-making on contextual and behavioral evidence is paradoxical, if not unacceptable. At least, a higher threshold than the one authorized by CCF could be demanded, such as the necessity to collect data allowing to objectively identify the target as a permanent and military active member of an organized armed group." Mignot-Mahdavi*, supra* note 8, at n.533.

139. *See Drone Strikes on a Jirga in Datta Khel*, *supra* note 108.

140. *Id.*

141. *Id.*

engaged in any terrorist activity.[142] The civilian casualties resulting from this drone strike were thus not merely incidental to an otherwise lawful strike, but were purposefully inflicted: a truth which differed markedly from the official U.S. state narrative that was built around the drone strike.

It is important to keep in mind that this strike killed as many as 42 people,[143] and that the official U.S. narrative claimed that all victims of this targeted killing were legitimate targets.[144] However, both FA's forensic analysis and local accounts rebut this narrative.[145] Local accounts merely note the obvious: "[t]he Taliban will never gather in such a large number in broad daylight to be targeted by the drones."[146] FA's analysis supported the eye witness statements, and found that the men who were killed were in fact participating in a jirga (a traditional assembly of leaders that make decisions by consensus).

The problem here is that the people who were gathered—policemen, religious leaders, and other young men from the community—all met the DOD's framework criteria for being considered "hostile," because they were meeting in a group that did consist of members of the Taliban.[147] Nonetheless, under IHL as it is actually codified in the Additional Protocols to the Geneva Conventions, these victims were, in that moment, more akin to people gathering for a bake sale than people engaging in hostilities.[148] The men were gathered to discuss the property rights to a nearby mine: essentially a community financial matter that was in no way connected to terrorist operations.[149] By placing the official U.S. narrative alongside what was later discovered through digital forensic evidence, we can see just how heavily the official state narrative depends on a wide and broad interpretation of the principle of distinction to justify its action. Further, we can see how inaccurate the official state narrative was with respect to who the victims were, which would have been impossible if not for digital forensics allowing for the re-creation of these crimes. Indeed, without digital forensics, the criminal nature of the strike would have remained invisible.

We can further test the utility of digital forensics using other drone strike case studies, such as the targeted strike on Omar Ibn Al-Khattab Mosque in

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142. *Id.*

143. *See Pakistan: Reported US Strikes 2011*, BUREAU OF INVESTIGATIVE JOURNALISM (Aug. 10, 2011), https://www.thebureauinvestigates.com/drone-war/data/obama-2011-pakistan-strikes/

144. *See* Tom Wright & Rehmad Mehsud, *Pakistan Slams U.S. Drone Strikes*, WALL ST. J. (Mar. 18, 2011, 12:01 AM), https://www.wsj.com/articles/SB10001424052748703818204576206873567985708 (citing U.S. officials as stating that "[t]hese guys were terrorists, not the local men's glee club."); *see also* Masood & Shah, *supra* note 115 (citing U.S. officials as saying "[t]hese men weren't gathering for a bake sale…. They were terrorists.").

145. *See* Wright & Mehsud, *supra* note 144.

146. *Id.*

147. *Drone Strikes on a Jirga in Datta Khel*, *supra* note 108.

148. Additional Protocol I, *supra* note 5, at arts. 48-54.

149. *Drone Strikes on a Jirga in Datta Khel*, *supra* note 108.

Syria.[150] In this 2017 attack, a drone strike on a rural mosque left at least 38 dead, with some counts claiming up to 50 dead and dozens injured.[151] Again, the official U.S. State narrative of the incident differs markedly from the digital-forensic reconstruction of events: while U.S. Central Command did claim responsibility for the airstrike of the building, they claimed that the building was a "partially constructed community meeting hall" rather than a mosque, [152] which would be impermissible to target under IHL.[153] Further, official U.S. narratives stated that there were no civilian causalities, which the evidence suggests is untrue.[154]

In 2017, the U.N. Syria Commission Report concluded that U.S. forces had essentially "lacked an understanding of the actual target," including the fact that it was part of a mosque where military-aged male personnel would gather to pray every Thursday, along with other civilians of virtually every demographic.[155] At the heart of this analysis, bridging the gap between the U.S. narrative and the U.N. report, is the digital forensic evidence that reconstructed the strike.[156] The new forensic report found that, despite U.S. claims that there was a meeting of Al Qaeda members and leaders,[157] the

150. Idrees Ali & Phil Stewart, *Pentagon Denies Striking Mosque in Syria, Says It Killed Al Qaeda Militants*, REUTERS (Mar. 17, 2017, 5:59 PM), https://www.reuters.com/article/idUSKBN16O26S/; *see also Attack on the Omar Ibn al-Khattab Mosque*, HUM. RTS. WATCH (Apr. 18, 2017), https://www.hrw.org/report/2017/04/18/attack-omar-ibn-al-khatab-mosque/us-authorities-failure-take-adequate-precautions; Rebecca Mignot-Mahdavi, *Rethinking Direct Participation in Hostilities and Continuing Combat Function in Light of Targeting Members of Terrorist Non-State Armed Groups*, 105 INT'L REV. RED CROSS 1028, 1041 (2023) (noting that "…a US drone strike conducted on the evening of March 16, 2017… targeted the Sayidina Omar Ibn Al-Khattab Mosque in Al-Jinah, in the province of Aleppo, Syria. Around forty dead were reported by the Syrian Observatory for Human Rights.").

151. Ali & Stewart, *supra* note 150; *see also* Thomas Gibbons-Neff, *U.S. Finds That March Airstrike That Struck Building Described as Mosque Was Legal*, WASH. POST (June 7, 2017, 4:24 PM), https://www.washingtonpost.com/news/checkpoint/wp/2017/06/07/u-s-finds-that-march-airstrike-that-struck-building-described-as-mosque-was-legal-and-resulted-in-one-civilian-casualty/ (noting that U.S. officials "… said that dozens of al-Qaeda fighters were killed while the Human Rights Watch report says that 38 civilians were killed. Twenty-eight were identified as civilians, and 10 were unaccounted for. The U.K.-based Syrian Observatory for Human Rights said at least 49 people were killed in the strike."

152. *Airstrikes on the al-Jinah Mosque*, FORENSIC ARCHITECTURE (Apr. 17, 2017), https://forensicarchitecture.org/investigation/airstrikes-on-the-al-jinah-mosque.

153. *See* Additional Protocol I, *supra* note 5, art. 52.

154. *Attack on the Omar Ibn al-Khattab Mosque*, *supra* note 150.

155. Hum. Rts. Comm'n, Rep. of the Indep. Int'l Comm'n of Inquiry on the Syrian Arab Republic, ¶ 61, U.N. Doc. A/HR/36/55 (Aug. 8, 2017) [hereinafter UN Syrian Commission Report]. The report stated that "even though bombs designed to inflict low collateral damage were used, the United States targeting team lacked an understanding of the actual target, including that it was part of a mosque where worshippers gathered to pray every Thursday." *Id; see also Attack on the Omar Ibn al-Khattab Mosque*, *supra* note 150.

156. *See Airstrikes on the al-Jinah Mosque*, *supra* note 152.

157. *See* UN Syrian Commission Report, *supra* note 155, at ¶ 53; *see also Airstrikes on the al-Jinah Mosque*, *supra* note 152.

gathering at the mosque was actually a meeting of civilians.[158] Again, it is important to keep two things in mind: first, that the victims of this strike were targeted under the controversial DOD paradigm, which designates all military-aged males and all persons in close proximity to suspected terrorists as direct participants in hostilities; and second, that the State narrative—which asserted that no civilians were killed—would be difficult to contradict without the reconstructive work of digital forensics, which allowed investigators to reconstruct both the strike itself and the "pattern of life" evidence that showed a disregard for civilian life on the part of the drone operators.[159]

While the academic scope of this this article cannot cover the significant number of drone strikes carried out since the launch of the War on Terror, the few case-studies evaluated here show that both the Law of War Manual and the closely-related CCF paradigm have an "increased risk of error"[160] in distinguishing legitimate targets of lethal force from civilians. When both state narratives and digital forensic evidence are assessed side by side, the vast divergences between NGO/independent reports and official state rhetoric shows how "confused" the issue of distinction under IHL has become.[161] The broad discretion afforded to States under DOD and CCF targeting practices allows them to claim a low number of civilian casualties when in fact there are many. This "high rate of false positives"[162] allows states to cover up their many jus in bello violations in the absence of counter-narratives supported by convincing evidence. However, when properly utilized, digital forensics has been able to make "visible" the IHL violations that have taken place throughout the War on Terror, thereby introducing a mode of resistance to dominant state narratives.

III. APPLYING DIGITAL FORENSICS AS A FORM OF EVIDENTIARY RESISTANCE TO STATE DENIALS OF INTERNATIONAL HUMANITARIAN LAW VIOLATIONS IN PALESTINE

Digital forensics was once again highlighted as a as a form of evidentiary resistance during the Gaza conflict after the attack by Hamas on the October 7th, 2023. On that day, Palestinian gunmen from Hamas's armed wing, the Qassam Brigades, stormed into Israeli territory and killed over 1,100 people, mostly civilian women and children.[163] In response, Israel launched a "devastating" campaign of bombardment on Gaza, killing at least 25,000

158. *See* UN Syrian Commission Report, *supra* note 155, ¶ 59.

159. *Attack on the Omar Ibn al-Khattab Mosque*, *supra* note 150.

160. Mignot-Madhavi, *supra* note 8, at 28.

161. *Id.* at 135-36.

162. *Id.* at 135-36.

163. *Hamas Says October 7 Attack Was a 'Necessary Step,' Admits to 'Some Faults'*, AL JAZEERA (Jan. 21, 2024), https://www.aljazeera.com/news/2024/1/21/hamas-says-october-7-attack-was-a-necessary-step-admits-to-some-faults.

Palestinians, the vast majority of which were civilians.[164] As a matter of context, it is important to note that even prior to the Hamas terrorist attack, violence against (and displacement of) Palestinians in the West Bank had already surged as compared to years prior.[165] However, in the aftermath of the attack, the issue of Palestine in the United Nations, and more widely within the arena of international law, has largely focused on an academic exploration of settler violence.[166] Both the violence and the discourse around it have been facilitated by the first United Nations General Assembly Resolution on the topic—GA Res. 181.[167] This resolution resulted in the partition of the land in what is now the territory of Israel and Palestine from the Jordan River to the Mediterranean Sea.[168] The partitioning mandate forced the mass displacement of the Palestinian population, resulting in one of the biggest refugee crises to ever face the international community.[169]

However, addressing the decades-long campaign of violence within and against the Palestinian State is beyond the academic scope of this paper. Instead, this Part focuses on highlighting how new evidentiary mechanisms, as illustrated in the previous section, serve to introduce a counter-narrative of resistance to powerful State narratives regarding the months immediately following the October 7th attack. As was the case with the American drone strikes, the Israeli Government's official narratives have attempted to justify the blatant violations of international humanitarian law committed against the Palestinian people.

Israel's recent justifications were heard at the International Court of Justice (ICJ) during public hearings, upon the request for an indication of provisional measures submitted by South Africa, in the case concerning the Application of the Convention on the Prevention and Punishment of the

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164. *Id.*; *see also Gaza Death Toll Surpasses 25,000 as Israel Escalates Assault*, AL JAZEERA (Jan. 21 2024), https://www.aljazeera.com/news/2024/1/21/gaza-death-toll-surpasses-25000-as-israel-escalates-assault.

165. For existing literature that broadly covers the topic*, see, e.g.*, VICTOR KATTAN, FROM COEXISTENCE TO CONQUEST: INTERNATIONAL LAW AND THE ORIGINS OF THE ARAB-ISRAELI CONFLICT 1891-1949, 209-238 (2009) (relating the history of Palestinian displacement); John Quigley, *Displaced Palestinians and a Right to Return*, 39 Harv. Int'l L. J. 171, 173-80 (1998) (attributing near-total responsibility for the existing refugee crisis to Israel); Alfred de Zayas, *The Illegality of Population Transfers and the Application of Emerging International Norms in the Palestinian Context*, 6 PALESTINE YEARBOOK INT'L L., 17, 35 (1990-91) (commenting that "the displacement of the indigenous Palestinian population from their homelands and the implantation of settlers in their territory" was attributable to Israeli state actions).

166. *See* de Zayas, *supra* note 165, at 35 *et seq*.

167. G.A. Res. 181 (II), Future Government of Palestine (Nov. 29, 1947).

168. *Id*. at 143.

169. For a historical overview, *see, e.g.*, Andrew Kent, *Evaluating the Palestinians' Claimed Right of Return*, 34 U. PA. J. INT'L L. 149, 167 (2012) (writing that "some 600,000 to 760,000 Palestinian Arabs were either expelled or fled of their own accord from territory controlled by Israel."); MICHAEL DUMPER, THE FUTURE FOR PALESTINIAN REFUGEES 37 (2007); BENNY MORRIS, THE BIRTH OF THE PALESTINIAN REFUGEE PROBLEM REVISITED 602-04 (2d ed. 2004).

Crime of Genocide in the Gaza Strip (South Africa v. Israel).[170] This paper focuses on applying the analysis from the previous sections towards the evidence that was presented during Israel's defense.[171] Specifically, as part of its defense, the Israeli legal team presented visual materials—which included maps, video imaging, and annotated diagrams—to facilitate its legal arguments. On the other side, South Africa argued that Gaza has been on the brink of famine, and is faced with a humanitarian crisis that cannot be contained.[172] Ultimately, the thrust of South Africa's argument was that Israel must suspend its military operations in order to prevent these crises from worsening to the point where Israel's intentional aggravation of these circumstances constitutes a genocide.[173] However, as Professor Adil Haque explains, in order for the court to order the suspension of military activities in Gaza, it must find it plausible that Israel's military campaign is motivated by genocidal intent, and *not only* that further military action risks irreparable prejudice to Palestinian rights under the Genocide Convention.[174] To that end, Forensic Architecture undertook a digital forensic analysis of events to show that Israel was intentionally creating circumstances that caused eminently avoidable mass civilian casualties.[175]

Since the attack, and during the months preceding it, many academics speculated as to the legal rationale that Israel would inevitably offer in a case such as this, in order to determine whether they might be legally sound.[176] However, within this debate, none of them have focused on the evidence that Israel has offered to support its own claims of self-defense. This paper thus

170. Application of the Convention on the Prevention and Punishment of the Crime of Genocide in the Gaza Strip (S. Afr. v. Isr.), Application Instituting Proceedings, *passim* (Dec. 29, 2023), https://www.icj-cij.org/case/192.

171. For an overview of the digital evidence that Israel produced during their defense, *see The International Court of Justice Holds Public Hearings in the Case of South Africa v. Israel—Oral Arguments of Israel*, I.C.J. (Jan. 12, 2024), https://webtv.un.org/en/asset/k1c/k1c10lsjoq.

172. Application of the Convention on the Prevention and Punishment of the Crime of Genocide in the Gaza Strip (S. Afr. v. Isr.), Verbatim Record, at 40, ¶ 34 (Jan. 11, 2024) [hereinafter Verbatim Record I].

173. *Id.* at 77, ¶ 16.

174. Adil Ahmad Haque, *How the International Court of Justice Should Stop the War in Gaza*, JUST SEC. (Jan. 15, 2024), https://www.justsecurity.org/91238/how-the-international-court-of-justice-should-stop-the-war-in-gaza.

175. *See An Assessment of Visual Material Presented by the Israeli Legal Team at the ICJ*, FORENSIC ARCHITECTURE (Feb. 26, 2024), https://forensic-architecture.org/investigation/assessment-israeli-material-icj-jan-2024 [hereinafter *Assessment of Visual Material*].

176. *See, e.g.*, Ralph Wilde, *Israel's War in Gaza is Not a Valid Act of Self-Defence in International Law*, OPINIO JURIS (Oct. 9, 2023), https://opiniojuris.org/2023/11/09/israels-war-in-gaza-is-not-a-valid-act-of-self-defence-in-international-law/. For a representation of both sides of the issue, *compare* Amichai Cohen & Yuval Shany, *Unpacking Key Assumptions Underlying Legal Analyses of the 2023 Hamas-Israel War*, JUST SEC. (Oct. 30, 2023), https://www.justsecurity.org/89825/unpacking-key-assumptions-underlying-legal-analyses-of-the-2023-hamas-israel-war/, *with* Adil Ahmad Haque, *Enough: Self Défense and Proportionality in the Israel-Hamas Conflict*, JUST SEC. (Nov. 6, 2023) https://www.justsecurity.org/89960/enough-self-defense-and-proportionality-in-the-israel-hamas-conflict/

takes a novel look at the evidence that Israel proffered in order to test how contemporary digital forensics has been able to challenge the official State narratives regarding the recent drone strikes in Palestine. This section aims to provide the international community with clarity and insight regarding a highly polarizing topic, and makes a case for utilizing digital forensics as among the primary fact-finding methodologies for the ICJ, as it seeks to combat misinformation from both sides. In conducting this analysis, the paper first lays out the legal arguments that Israel marshalled before the ICJ, and then draws on the independent inquiries that have been conducted in order to refutes Israel's official narrative.

A. Contextualizing the Debate: Unpacking Israel's Legal Arguments before the International Court of Justice

Israel's first legal argument stems from precedent developed in the recent Russian Genocide Case.[177] In that case, brought by Ukraine against the Russian Federation, Ukraine challenged the legality of Russian military operations under the Genocide Convention.[178] Ultimately, the court ordered Russia to "immediately suspend military operations" against Ukraine.[179] For its part, Israel's first argument as to why it should be allowed to continue military operations in Gaza is simply that South Africa's legal theory was "fundamentally different" from Ukraine's in its case against Russia.[180] In the Russian case, Ukraine proposed the novel legal argument that Russia's military operation amounted to war crimes because they were motivated by false allegations that Ukraine itself had been committing genocide against Russian-speaking Ukrainians.[181] In other words, Israel's first argument was extremely narrow: it couldn't be enjoined from further military action on the same grounds as Russia, because it's case was distinguishable.[182]

Because this was not a complete defense, but only sought to cut off one potential theory that South Africa could have proposed, Israel needed to supplement its defense with further legal reasoning. As its second argument, Israel invoked the Bosnian genocide case.[183] In that case, the court declined to order Serbia and Montenegro to suspend military operations in Bosnia, and instead enjoined them only from committing discrete acts of genocide. The Court's rationale was that demanding a total suspension of military action

177. Allegations of Genocide under the Convention on the Prevention and Punishment of the Crime of Genocide (Ukr. v. Russ.), Order, 2022 I.C.J. Rep. 211, (Mar. 16).

178. *Id.*, ¶ 1.

179. *Id.*, ¶ 86(1).

180. *See* Application of the Convention on the Prevention and Punishment of the Crime of Genocide in the Gaza Strip (S. Afr. v. Isr.), Verbatim Record, at 55, ¶ 7 (Jan. 12, 2024) [hereinafter Verbatim Record II].

181. *See* Haque, *supra* note 174.

182. *Id.*

183. "The requested measures seek to reverse the *Bosnia* case. When provisional measures were ordered in that case, the armed conflict was still in progress. The allegations in that case were similar to those made in this case." Verbatim Record II, *supra* note 180, at 57, ¶ 13.

would protect rights not covered by the Genocide Convention itself, thus unnecessarily prejudicing Serbian and Montenegrin forces.[184] Israel thus asked the court to find that South Africa's requested measure would conflict with, and effectively reverse, the precedent set in the Bosnian case.[185] But this argument is unconvincing. South Africa's central claim remains that Israel is committing genocide, not by discrete acts of killing individual Palestinians, but by degrading the living conditions of the group as a whole through a combination of systematic measures including "siege, starvation, forcible displacement, and widespread destruction of civilian and medical infrastructure."[186]

The merits of South Africa's claims will ultimately be decided based on whether there is independently verified proof of the genocidal acts alleged.[187] However, South Africa faces a high bar. When deciding on the merits whether a genocide has actually occurred, the court imposes "the highest, almost insurmountable, standard of proof." [188] In *Bosnia v. Serbia* (2007), the ICJ stated that "for a pattern of conduct to be accepted as evidence of [a genocide's] existence, it would have to be such that it could only point to the existence of [genocidal] intent." [189] A 2015 opinion from the ICJ, in the matter of *Croatia v. Serbia*, further stated that genocidal intent must be "the only inference that could reasonably be drawn from the acts in question."[190] In both cases, the Court quoted essentially the same language, clarifying that "claims against a State involving charges of exceptional gravity. . . must be proved by evidence that is fully conclusive."[191] Given the extremely high evidentiary bar that South Africa faces in the upcoming proceedings on the merits of the case, there is a need for digital forensic evidence, which can counter Israel's

184. *See* Haque, *supra* note 174.

185. *Id.*

186. *Id.*

187. It should be clarified here that the ICJ ruling at first instance concerned only the provisional measures and not a ruling on the issue of Israel committing genocide itself. *See* Ryan Goodman and Siven Watt, *Unpacking the Int'l Court of Justice Judgement in South Africa v. Israel (Genocide Case)*, JUST SEC. (Jan. 26, 2024), https://www.justsecurity.org/91486/icj-judgment-israel-south-africa-genocide-convention.

188. *Id.* (citing Application of the Convention on the Prevention and Punishment of the Crime of Genocide, (Bosn. & Herz. v. Serb. & Montenegro), Judgement, 2007 I.C.J. Rep. 43, ¶ 373 (Feb. 26) [hereinafter Bosnia Judgement]).

189. Bosnia Judgement, *supra* note 188, ¶ 373.

190. Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Croat. v. Serb.), Judgement, 2015 I.C.J. Rep. 3, ¶¶ 148, 178 (Feb. 3).

191. *Id.*, ¶ 178; In para 148, the Court further recalls that "in the passage in question in its 2007 Judgment, it accepts the possibility of genocidal intent being established indirectly by inference. The notion of 'reasonableness' must necessarily be regarded as implicit in the reasoning of the Court. Thus, to state that 'for a pattern of conduct to be accepted as evidence of… existence [of genocidal intent] it [must] be such that it could only point to the existence of such intent' amounts to saying that, in order to infer the existence of *dolus specialis* from a pattern of conduct, it is necessary and sufficient that this is the only inference that could reasonably be drawn from the acts in question." (alterations in original) (citing to Bosnia Judgement, *supra* note 188).

version of events. In a case such as this, where the existence of an entire group of people could depend on the volume and persuasive value of evidence presented to the Court, digital forensics, which unifies a wide array of snippets of information from across the web, can help to increase not only the volume, but the cohesiveness of the evidence.

B. Digital Forensics as an Independent Verifier of Evidence Presented by the Israeli Legal Team in South Africa v. Israel

This section introduces how digital forensics can be applied to act as an independent verifier of narratives that counter dominant State positions, such as those produced by Israel during the preliminary ICJ briefing in 2024. With respect to this endeavor, Forensic Architecture was able to review the visual evidence presented by the Israeli legal team, and analyze it for three elements of evidentiary validity: (i) authenticity (i.e. whether the evidence was tampered with), (ii) annotation (i.e. whether elements within the evidence were correctly labelled), and (iii) interpretation (i.e. whether the claims made by the Israeli legal team were consistent with the visual evidence presented).[192] This last element, interpretation, is perhaps where digital forensics has the most important role to play. By independently sourcing and verifying the evidence presented by the Israeli legal team, Forensic Architecture was able to find eight instances where the Israeli legal team misrepresented the visual evidence through a combination of incorrect annotations and labelling and misleading verbal descriptions.[193] Each instance of FA's independently researched evidentiary counter-narrative helps to refute Israel's official position that its actions in Gaza were in full compliance with international law. Specifically, the independent evidence shows that the Israeli legal team presented isolated instances of Palestinians allegedly using civilian infrastructure for military purposes, and used these as a blanket justification for the systemic and widespread attacks on civilians, shelters, schools, and hospitals.[194] These facilities are all categorically civilian areas, and do not qualify as targetable areas for hostilities. FA's evidence thus challenges, at the very least, the credibility of the evidence presented by the Israeli legal team and their claim of "full compliance with international law."[195]

1. Targeting Hospitals and Medical Facilities

While it would be beyond the scope of this paper to go through all individual pieces of evidence analyzed by FA, this paper highlights notable

192. *See Assessment of Visual Material*, *supra* note 175.

193. *Id.*

194. *Id.*

195. "Israel is fighting Hamas terrorists, not the Palestinian population, and we are doing so in full compliance with International Law. The IDF is doing its utmost to minimize civilian causalities, while Hamas is doing its utmost to maximize them by using Palestinian civilians as human shields." Verbatim Record II, *supra* note 180, at 34, ¶ 47(i).

instances where FA was able to identify misrepresentation of the evidence made by the Israeli legal team. This analysis will then demonstrate how correcting the changes that Israel made will help to counter the narrative offered by Israel before the Court, and challenge the legal justifications these narratives claimed to support.

The first instance to which this paper draws critical attention is Israel's claim that the areas targeted for Israeli military operations, while normally civilian, fell outside the scope of areas protected under international law because they were being used as launch points for Hamas's attacks.[196] For example, the Israeli legal team presented evidence claiming that a hospital, Al-Quds Hospital, was being used for military purposes, and that targeting the hospital was therefore justified under International Humanitarian Law.[197] The evidence shows footage of the hospital, likely taken by a drone, and annotated with labels indicating the purported boundaries of the hospital and the location of a Palestinian fighter, which seem to indicate that the hospital was being used as a base for Hamas. To bolster this narrative, the Israeli legal team claimed that "in the slide before you, you will see a militant going into Quds Hospital with an RPG. Hamas fired at IDF forces from under, and from within, Quds Hospital."[198]

Upon independent analysis, Forensic Architecture found evidence strongly suggesting that the building that the Israeli team had labelled as al-Quds Hospital was in fact a commercial and residential building. In the slide, the ground floor seems to have a commercial sign indicating shops selling sweets and desserts,[199] while the building's upper levels have balconies that indicate they are residences.[200] This report seems to corroborate the version of events offered by the Palestine Red Crescent Society (PRCS), which reported that Israeli claims of a Palestinian military operation taking place inside the hospital were false.[201] Independently sourced Aerial images of the

196. *See id.* at 19-20, ¶¶ 40-44.

197. *Id.* at 43, ¶ 21.

198. The video was part of a press release by the Israeli Miliary. *See* Press Release, Israeli Def. Force, Terrorist Squad Opens Fire from Al-Quds Hospital Entrance (Nov. 13, 2023), https://www.idf.il/en/mini-sites/idf-press-releases-regarding-the-hamas-israel-war/november-23-pr/terrorist-squadn-opens-fire-from-al-quds-hospital-entrance).

199. As noted by the team at Forensic Architecture, the building was labelled with the Arabic term "'حلويات," followed by "Desserts" in English, indicating its usage as a civilian building. *See Assessment of Visual Material*, *supra* note 175.

200. *See Id.*

201. *See* AN ASSESSMENT OF VISUAL MATERIAL PRESENTED BY THE ISRAELI LEGAL TEAM AT THE ICJ, FORENSIC ARCHITECTURE at § 4.20 (2024) [hereinafter ASSESSMENT OF VISUAL MATERIAL REPORT]; *see also* Associated Press, *Footage Shows the Destruction Inside Al Quds Hospital in Gaza City*, YOUTUBE (Dec. 20, 2023), https://youtu.be/EyQLsL7DMy0?si=80N85JIIZdrGPsJ [hereinafter Associated Press Footage].

hospital published by both Al Jazeera[202] and CNN[203] reinforced these evidentiary findings, and show the real boundary of the hospital complex, located behind the Palestinian fighter.[204] Nonetheless, al-Quds hospital was targeted by Israeli forces in a series of attacks that took place during October and November of 2023.[205]

The Israeli Legal team also presented evidence to the ICJ in support of their argument that Al-Shifa Hospital was also a "legitimate military target."[206] Israel claimed that Hamas was managing military operations from a closed-off area inside the hospital and utilizing a tunnel system that allegedly ran for hundreds of meters directly underneath the Hospital.[207] Israel further asserted that "Hospitals ha[d] not been bombed; rather the IDF [sent] soldiers to search and dismantle military infrastructure, [reduce] damage and disruption… [and] then withdr[a]w from the hospital."[208] Predictably, independent research documented that the Israeli military had directed that Al-Shifa be attacked from November 3rd, 2023 to as recently as February 8th, 2024.

202. Usaid Siddiqui et al., *Israel Hamas War Updates: Israel Bombs Areas near Gaza's Al-Quds Hospital*, AL JAZEERA (Oct. 28 2023), https://www.aljazeera.com/news/liveblog/2023/10/28/israel-hamas-war-live-invasion-under-way-as-gaza-cut-off-from-the-world.

203. Katie Polglase et al., *How Gaza's Hospitals Became Battlegrounds*, CNN (Jan. 12, 2024), https://edition.cnn.com/interactive/2024/01/middleeast/gaza-hospitals-destruction-investigation-intl-cmd.

204. *See Assessment of Visual Material*, *supra* note 175.

205. As Forensic Architecture reported, "Between 15 October and 14 November 2023…the area surrounding the hospital was reportedly heavily targeted, making it nearly impossible for ambulances to reach injured people and bring them back to the hospital. On 4 November, the entrance to the emergency ward of the hospital was targeted by Israeli forces, resulting in 21 injuries according to the Palestinian Red Crescent Society (PRCS). On 10 November, the intensive care department was targeted. The Israeli military did not provide evidence to justify either attack. The hospital went out of service on 12 November and was fully evacuated on 14 November. Videos after the Israeli strikes show extensive damage inside the hospital." *See* ASSESSMENT OF VISUAL MATERIAL REPORT, *supra* note 201, at § 4.20; *see also* @KhaledSafi, TWITTER (Jan. 17, 2024, 2:11 PM), https://twitter.com/KhaledSafi/status/1747743347601547320; @PeruginiNic, TWITTER (Jan. 19, 2024, 8:34 AM), https://twitter.com/PeruginiNic/status/1748383468491280436; Associated Press Footage, *supra* note 201.

206. The Israeli defense team presented its argument thus: "[i]n the slide before you, you will see a militant going into Quds Hospital with an PRG. Hamas fired at IDF forces from near, and from within, Quds Hospital. At Shifa Hospital, Gaza's largest, Hamas managed operations from a closed-off area." Verbatim Record II, *supra* note 180, at 43, ¶ 21. The proceedings continue as follows: "[h]ere you can see a weapon that IDF forces discovered hidden inside incubators at the hospital…. The list goes on. In every single hospital that the IDF has searched in Gaza, it has found evidence of Hamas military use." *Id.*, ¶¶ 26-29.

207. "Here you can see an opening to the tunnel that ran for hundreds of metres directly under the hospital." *Id.*, ¶ 22.

208. "Hospitals have not been bombed; rather, the IDF sends soldiers to search and dismantle military infrastructure, reducing damage and disruption. Indeed, the tunnel that sat directly under the main building in Shifa Hospital was exploded without damaging the building above. The IDF team withdrew from the hospital." *Id.* ¶ 31.

During these attacks, ambulances carrying wounded were also targeted.[209] The NGO Human Rights Watch, which also obtained video evidence of the strike, found no evidence that the ambulances struck by the IDF were being used for military purposes. Rather, evidence that had been independently collected and verified seemed to confirm that the strike had harmed civilians.[210] An independent reconstruction of events also indicates that "none of the strikes align spatially with where the Israeli military claimed the tunnel to be," and therefore concluded that there was no "evidence provided to justify these specific strikes by the Israeli military."[211] This strongly suggests that the bombing of these hospitals, which were occupied by civilians and medical personnel, violated Article 18 of the Fourth Geneva Convention (1949).[212]

2. Targeting Civilian Residential Buildings

While this paper thus far has focused on the principle of distinction, there is another jus in bello norm of equal importance that supports the objective of limiting civilian casualties: the principle of proportionality.[213] Proportionality is the jus in bello norm that informs whether otherwise lawful military targets (that is, verified combatants directly taking place in hostilities) may be targeted given the likely collateral damage that their destruction would entail, when assessed against its anticipated military advantage.[214] Under the generally accepted interpretation of

209. This includes evidence such as a video of a women on a stretcher in one of the ambulances targeted. *Gaza: Israeli Ambulance Strike Apparently Unlawful*, HUM. RTS. WATCH (Nov. 7, 2023), https://www.hrw.org/news/2023/11/07/gaza-israeli-ambulance-strike-apparently-unlawful; *see also Israel Strikes Ambulance near Gaza Hospital, 15 Reported Killed*, REUTERS (Nov. 3, 2023, 8:01 PM), https://www.reuters.com/world/middle-east/health-ministry-gaza-says-israel-targeted-convoy-ambulances-leaving-al-shifa-2023-11-03.

210. *Gaza: Israeli Ambulance Strike Apparently Unlawful*, *supra* note 209; *see also Israel Strikes Ambulance near Gaza Hospital, 15 Reported Killed*, *supra* note 209.

211. See ASSESSMENT OF VISUAL MATERIAL REPORT, *supra* note 201, § 5.8; *see also* INDEP. TASK FORCE ON THE APPLICATION OF NAT'L SEC. MEMORANDUM-20 TO ISRAEL, REPORT OF THE INDEPENDENT TASK FORCE ON THE APPLICATION OF NATIONAL SECURITY MEMORANDUM-20 TO ISRAEL 35 (2024) [hereinafter NSM REPORT] (stating that, "[b]ased on the available evidence, it is more likely than not that the attack violated international humanitarian law.").

212. "Civilian hospitals organized to give care to the wounded and sick, the infirm and maternity cases, may in no circumstances be the object of attack, but shall at all times be respected and protected by the Parties to the conflict." Geneva Convention (IV) Relative to the Protection of Civilian Persons in Times of War art. 18, *adopted* Aug. 12, 1949, 75 U.N.T.S. 287 (entered into force Oct. 21, 1950).

213. Ryan Goodman, Michael W. Meier & Tess Bridgeman, *Expert Guidance on the Law of Armed Conflict, in Israel-Hamas War*, JUST SEC. (Oct. 17, 2023), https://www.justsecurity.org/89489/expert-guidance-law-of-armed-conflict-in-the-israel-hamas-war/.

214. *See* Additional Protocol I, *supra* note 5, at art. 51(5)(b) (stating "an attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.").

"proportionality," which both the ICRC and United States adopt, an attack on a civilian target, such as an apartment building, must consider whether the civilian infrastructure that is expected to be destroyed in the process is excessive in relation to the expected military advantage to be gained from its destruction.[215]

Israel adopts an uncommon view of the proportionality analysis that would allow combatants to destroy entire residential buildings so long as enemy military facilities are found therein, seemingly irrespective of the civilian costs. This "outlier position" holds that "as a matter of law, [any] building [in which military objectives exist] is a single military objective, and therefore damage to other parts of the building need not be considered as collateral damage."[216] This paints a troubling picture when read against Israel's professed intent "to eradicate Hamas and all its infrastructure."[217] As scholars have noted, Israel's conception of the rule "does not appear to include a limiting principle that would apply to other civilian objects," such as medical facilities.[218] While unconvincing, this philosophy at least accounts for both the destruction wrought by Israel on Palestinian hospitals, and the rationale proffered to justify it, as seen above.

Notably, Israel's legal position regards only the destruction of the building as immaterial, but does not take the same outlier attitude toward civilian life.[219] Here, then is where the importance of independently collected and verified evidence cannot be overstated: even under Israel's extreme interpretation of the proportionality analysis, any evidence clearly establishing that there were civilian occupants within targeted buildings at the time they were destroyed would also establish a violation of IHL, irrespective of whose proportionality analysis is being applied.

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215. See Int'l Comm. of the Red Cross, International Humanitarian Law and the Challenges of Contemporary Armed Conflicts 20 (2019), https://www.icrc.org/sites/default/files/document/file_list/challenges-report_urbanization-of-armed-conflicts.pdf; *see also* Brian L. Cox, *The IDF Attack on Al Jalaa Tower: Criticisms are Correct on the Law but Mistaken in Applying it*, JUST SEC. (May 28, 2021), https://www.justsecurity.org/76681/the-idf-attack-on-al-jalaa-tower-criticisms-are-correct-on-the-law-but-mistaken-in-applying-it/; Int'l L. Assoc. Study Grp. on the Conduct of Hostilities in the 21st Century, *The Conduct of Hostilities and International Humanitarian Law: Challenges of 21st Century Warfare*, 93 INT'L L. STUD. 322, 356 (2017); *see generally* LAURENT GISEL, INT'L COMM. OF THE RED CROSS, THE PRINCIPLE OF PROPORTIONALITY IN THE RULES GOVERNING THE CONDUCT OF HOSTILITIES UNDER INTERNATIONAL HUMANITARIAN LAW (2016) (surveying the views of states on the issue).

216. John J. Merriam & Michael N. Schmitt, *Israeli Targeting: A Legal Appraisal*, 68 NAVAL WAR COLL. REV. 15, 25 (2015); *see also* Eli Bar-On, *Israel's Strike on The Gaza Media Building Complies with the Law of Armed Conflict*, MIR-YAM INST. (May 19, 2021), https://www.miryaminstitute.org/commentary-blog/israels-strike-on-the-gaza-media-building-complies-with-the-law-of-armed-conflict.

217. Leonard Rubenstein, *Israel's Rewriting of the Law of War*, JUST SEC. (Dec. 21, 2023), https://www.justsecurity.org/90789/israels-rewriting-of-the-law-of-war.

218. Goodman, Meier & Bridgeman, *supra* note 213.

219. "Any loss of civilian life or injury to civilians [is still considered] in the proportionality analysis. It is civilian infrastructure – the building itself – which drops out of the equation." *Id*.

When presenting its evidence to the ICJ, the Israeli legal team sought to support the claim that residential buildings were being "abused for military purposes by Hamas, including [being used] as rocket launching sites."[220] If true, these homes may have been legitimate targets under Israel's proposed standard for proportionate attack. However, upon close inspection of the footage presented by Israel, Forensic Architecture found that, in the majority of instances of Israeli attacks on residential buildings, the Israeli military had not provided evidence to support the assertion that no civilians resided within those buildings at the time of the attacks.[221]

Here, it is useful to read this independent evidence in the light of other verified sources. For instance, as one report offered by an independent American task force on national security issues indicates, , there are notable instances in which "recurrent attacks [were] launched despite foreseeable disproportionate harm to civilians and civilian objects…."[222] These were "wide area attacks [launched] without prior warnings in some of the most densely populated residential neighborhoods in the world, [including] direct attacks on civilians or otherwise protected persons (e.g. police and civil defense personnel), and attacks against civilian objects, including those indispensable for the survival of the civilian population."[223]

This report, known as the NSM 20 report, also highlights the IDF's use of artificial intelligence without adequate human oversight,[224] a position corroborated by FA's own analysis.[225] According to the NSM report, such lax oversight may have been partially responsible for the strike on the Engineers' Building (Al-Mohandiseen) in Central Gaza.[226] In this strike, a six-story apartment building, known as the "Engineers' Building" was targeted, killing over 100 people, including 54 children.[227] The building was being used as a temporary shelter, and was located in a residential neighborhood just 400

220. "Houses, schools, mosques, United Nations facilities and shelters are all abused for military purposes by Hamas, including as rocket launching sites." Verbatim Record II, *supra* note 180, at 42, ¶ 11.

221. The Forensic Architecture report concludes that, on November 21, 2023, the Israeli army struck the residential home of Dima Abdullatif Al-Haj, killing over 50 members of her family and wider community sheltering within the property. ASSESSMENT OF VISUAL MATERIAL REPORT, *supra* note 201 at, § 8.6; *see also* Nils de Hoog et al., *How Wars Destroyed Gaza's Neighborhoods—Visual Investigation*, GUARDIAN (Jan. 30, 2024), https://www.theguardian.com/world/ng-interactive/2024/jan/30/how-war-destroyed-gazas-neighbourhoods-visual-investigation.

222. NSM REPORT, *supra* note 211, at 3.

223. *Id.*

224. *See, e.g.*, *id.* at 28-29.

225. *See* ASSESSMENT OF VISUAL MATERIAL REPORT, *supra* note 201.

226. NSM REPORT, *supra* note 211, at 3-4; *see also Gaza: Israeli Strike Killing 106 Civilians an Apparent War Crime*, HUM. RTS. WATCH (Apr. 4, 2024, 12:00 AM), https://www.hrw.org/news/2024/04/04/gaza-israeli-strike-killing-106-civilians-apparent-war-crime.

227. *Gaza: Israeli Strike Killing 106 Civilians an Apparent War Crime*, *supra* note 226.

meters south of the Nuseirat refugee camp.[228] According the Human Rights Watch, there was "no evidence of a military target in the vicinity of the building at the time of the Israeli attack."[229] The digital forensic evidence that FA has managed to collect, and which has been used in reports such as the NSM 20 report, has thus been invaluable for bringing violations like these to light. Details from the NSM report have been seen not only by scholars, but by Congress and the Departments of State and Defense.[230]

3. Targeting Humanitarian Zones and Safe Zones

Digital forensic analysis can also be applied to the evidence presented by the Israeli legal team in defense of the strikes conducted against designated UN humanitarian zones and safe zones in Rafah. At the ICJ, Israel presented evidence of artillery launch sites "adjacent to the humanitarian zone" in Rafah, extracted from a video released by the Israeli military on December 7th, 2023.[231] For context, it is important to note that Israel itself delineates where a humanitarian zone exists, and at what time.[232] As a result, Israel also bears the responsibility of communicating where designated humanitarian zones and safe zones exist so that civilians can gather within their boundaries, and so that combatants will not conduct military operations from within their borders.[233]

This is important because the evidence that Israel presented to the ICJ in defense of its attack on one humanitarian area consisted of a satellite image showing a UN facility, an alleged "boundary line" supposedly corresponding to the actual boundaries of the humanitarian zone established at that time, and a possible rocket-launching site about 200 meters away from the boundary.[234] This would seem to be fairly convincing evidence to support Israel's claims that Hamas had been launching attacks from within or near the safe zones.

However, the satellite maps of the area provided by Israel were reported as misleading for several reasons.[235] First, there is nothing in the public record that corroborates the humanitarian zone boundary line that Israel drew on its own satellite map.[236] Second, the drawn boundary line did not correspond to the boundaries of any of the 600 blocks into which the Israeli military purportedly divided the area in an effort to aid in evacuating civilians.[237] And third, at no point did Israel clearly delineate or communicate the boundaries

228. *Id.*
229. *Id.*
230. NSM Report, *supra* note 211, at 3.
231. *See* ASSESSMENT OF VISUAL MATERIAL REPORT, *supra* note 201, at § 9.
232. *Cf. id*.
233. *Cf. id.*
234. *See id.*
235. *Id.*
236. *See Id.*
237. *Id.*

of any safe zone anywhere, either to refugees or to on-the-ground human rights investigators.[238]

Again, to understand why this matters so much it is important to keep in mind that Israel is responsible both for establishing the safe zones and for communicating clearly with refugees in order to facilitate evacuation. This means that, while Israel has the authority to arbitrarily set the boundaries of a safe zone, as it did in the evidence presented, it also has the responsibility to ensure that refugees and combatants understand where this boundary line is so that no military operations are conducted within its borders. But rather than fulfilling this responsibility, Israel instead maintained a policy of being vague and ambiguous with respect to the boundaries of its safe zones, ostensibly in order to manipulate those boundary lines as military convenience required.[239]

In addition to the attack on the humanitarian safe zone in Rafah, South Africa's further claimed that Israel had ordered evacuations in a manner intended to bring about the "destruction of Palestinians."[240] In response, the Israeli legal team made the following statement: "The IDF… enacts localized pauses in its operations to allow civilians to move. It does this even though Hamas does not agree to do the same and has even attacked IDF forces securing humanitarian corridors."[241] To support this claim, Israel again submitted satellite maps of the area concerned, alongside purported screenshots of evacuation orders and explanations given in Arabic, which were created to help Palestinians understand how to evacuate the area safely.[242]

However, upon inspection of the maps supplied by the Israeli legal team, independent investigators from Forensic Architecture found that they offered "incomplete, erroneous and misleading instructions."[243] To understand the problem, it is again important to know that the evacuation order map depicts the area subject to evacuation as being subdivided into many (at least 100) blocks. The purpose of the subdivision was to aid in evacuating certain portions of the city individually at different times, so as to avoid the chaos of a mass exodus.[244] But, investigators noted that the written evacuation orders did not perfectly correspond to the visual representations provided;[245] thus, it was not always clear to all residents when or whether they were to evacuate.[246] This created conditions wherein some citizens were participating in an unsanctioned evacuation, while others who were supposed to evacuate were

238. *See Id.*
239. *See id.*, §§ 9-10.
240. Verbatim Record I, *supra* note 172, at 33, ¶ 7.
241. ASSESSMENT OF VISUAL MATERIAL REPORT, *supra* note 201, at § 10.1.1.
242. *Id.*, § 10.
243. *Id.*, § 10.5.
244. *See id.*, § 10.
245. *See id.*, § 10.
246. *See id.*, § 10.

unaware of this fact.[247] This lead to situations in which bombs were being dropped on ones that were allegedly marked as safe on the maps provided to citizens.[248]

Another instance in which Israel seems to have mislead the Court with a fictious narrative has been highlighted in the NSM report, in the section entitled "Attacks on Safe Zones and Humanitarian Corridors."[249] The report cites an instance in which a family, the Al-Arjamis, attempted to evacuate their homes and find a safe zone, only to be killed in that safe zone the next day.[250] Reportedly, the family had even stopped to ask an IDF soldier which road they should take to reach the proper safe zone, and were told that it did not matter.[251] This particular instance of a frightened family walking 8 miles only to be killed in a safe zone is particularly compelling, but the report does not end with the Al-Arjami family. It goes on to conclude that there were 38 civilians killed in the incident, including 17 children, further discrediting Israel's claim of compliance with safe zones and precautionary measures for the protection of civilians.[252]

C. Misleading Aesthetics: The Economy of Truth in International Humanitarian Conflicts

While the scope of this paper does not permit the type of post-strike analysis necessary to determine whether Israeli military operations in Gaza violate the Geneva Conventions, it does address another question of academic interest: whether Israel is promoting a misguided interpretation of International Humanitarian Law. An interpretation which strategically undermines the values of the Geneva Conventions and subverts the protections they sought to establish for civilians in times of war. Because the Geneva Conventions are effectively the universal governing instruments on the laws of war, an interpretation which subverts their intent would amount to an interpretation that promotes the commission of violations of IHL.

Professor Leonard Rubenstein has suggested that Israel's interpretation of the laws of armed conflict constitute just such a violation.[253] According to Rubenstein, Israel has manipulated the language of humanitarian law—namely the principles of proportionality and minimization of harm—to erase its violations of IHL by asserting theories of these jus in bello concepts that

247. *Cf. id.*

248. *See* NSM REPORT, *supra* note 211, at 27 (stating that "within the first six weeks of hostilities, some 42 percent of the 500 2,000-pound bombs used were dropped in designated safe zones.").

249. *Id.* at 64.

250. *Id.* at 64-65.

251. *Id.* at 65.

252. *See id*. at 65 (cross-references the Forensic Architecture report to build their independent case-study); *see also* Yahya Abou-Ghazala, *They Followed Evacuation Orders. An Israeli Strike Killed Them the Next Day*, CNN (Oct. 17, 2023, 10:16 PM), https://edition.cnn.com/2023/10/16/middleeast/israel-palestinian-evacuation-orders-invs/index.html.

253. Rubenstein, *supra* note 217.

do not comport with widely-accepted interpretations thereof.[254] Again, as seen in the case study of American drone warfare, Israel has attempted to justify its conduct through a (defunct) jus ad bellum claim: that of the (rejected) notion of a "just war."[255]

Importantly, the "just war" theory, as first developed by Francis Lieber in the 1860s, has been virtually universally rejected since the adoption of the Geneva Conventions and their Additional Protocols.[256] Nonetheless, Israel has attempted to revive the theory in order to capitalize on its indiscriminate attitude toward civilian casualties.[257] Specifically, Lieber's code of just war elevates claims of military necessity over the protection of civilians, and explicitly condones attacks on hospitals, food sources, and individual civilians to the extent demanded by the war effort.[258] Under such a theory, it is small wonder that Israel has seen fit to commit acts that other States have plausibly viewed as genocidal. As Israeli Government spokesperson Eylon Levy explained, "[U]nder international law, proportionality means that with each particular strike the collateral damage cannot be disproportionate to the expected military advantage. And the excepted military advantage here is to destroy the terror organization that perpetrated the deadliest massacre of Jews since the Holocaust…."[259]

However, under a proper understanding of the distinction between jus ad bellum and jus in bello, it can be demonstrated why Lieber's ideas have been so thoroughly rejected. The "just war" theory posits that any war which was begun properly under jus ad bellum dispenses with the need for a code of jus in bello conduct. But the entire point of the Fourth Geneva Convention, and of much of IHL more broadly, is to establish and enforce jus in bello norms because conduct *during* a war generally results in far more casualties than the single act that initiates a war. Thus, Israel's unique interpretation of the laws of armed conflict cut against both the letter and spirit of the Geneva Conventions, the foundational principles of which include the reduction of civilian suffering, care for the wounded and sick, and the protection of prisoners of war. As the 1987 ICRC Commentaries to Additional Protocol I state, "there is no implicit clause in the Conventions which would give priority to military requirements."[260] Thus, not only has Israel again confused the law of jus ad bellum with that of jus in bello, but it has even attempted to

254. *Id.*

255. *Id.*

256. *Id.*

257. *Id.*

258. *Id.*

259. *Id.* (quoting from a live BBC interview with Eylon Levy); *Cf.* Pnina Sharvit Baruch, *The War with Hamas: Legal Basics*, INST. NAT'L SEC. STUD. (Oct. 16 2023), https://www.inss.org.il/publication/gaza-law (stating her belief that "[t]he definition of 'military targets' includes civilian objects that by their nature, purpose, location, or use make an effective contribution to military action and whose destruction offers a definite military advantage.").

260. Additional Protocol I, *supra* note 5, at art. 57.

discredit the need for jus in bello norms entirely by adopting the "just war" paradigm.[261]

Israel's reading of international law would allow it to destroy an entire neighborhood to attack Hamas assets therein.[262] And critically, the state acts in accordance with this position, "destroy[ing] or damag[ing] 45 percent of all housing units in the Gaza Strip."[263] In order to prevent further loss and tragedy, it is imperative to be able to hold States accountable for their violations of IHL. But in order to do that, States must not be allowed to make these violations "invisible" to the machinery of IHL. Thus, the international community must first take a firm stance on proper definitions for the principles of distinction and proportionality so that States cannot claim that their actions were legal in the first place; and further, evidentiary methodologies such as digital forensic analysis must be utilized in order to prove up narratives of events that can convincingly counter dominant State narratives.

Importantly, there are some valid procedural arguments that can be made in Israel's favor. As Yuval Shany and Amichai Cohen note, there is no commonly agreed-upon interpretation of certain facets of IHL, and the arguments presented in the January 2024 proceedings against Israel thus contained the same pitfalls as Israel's own arguments: namely, that they lacked a substantiated legal basis and manipulated the rhetoric of international law to be applied specifically towards Israel's actions (thus constituting law "made for Israel").[264] This argument raises a strong point: that within the current conflict, South Africa's creative and novel legal arguments may include a loose interpretation of genocide that was too specifically tailored to the situation at hand to be considered truly principled. Arguments such as those made by South Africa may thus fall on the sword of the same critique that they have asserted against the opposition.

It is important to highlight how this critique can be applied to the analysis above to further demonstrate the importance of independent forensic evidence, which can help to counter bias on both sides of a contentious debate. For example, consider the advance warnings of military action that

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261. *See* Rubenstein, *supra* note 217 (noting that Israel's justifications for their mass killings of civilians focus exclusively on the over-arching goal of eradicating Hamas, and leave no room for discussions of proportionality or distinction).

262. *See*, *e.g.*, *Hamas-Israel Conflict 2023: Key Legal Aspects*, ISRAELI MINISTRY FOREIGN AFFS. (Dec. 3, 2023), https://www.gov.il/en/pages/hamas-israel-conflict2023-key-legal-aspects.

263. Press Release, Off. Of the High Comm'n of Hum. Rts. (OHCHR), Gaza: Destroying Civilian Housing and Infrastructure is an International Crime (Nov. 8, 2023), http://ohchr.org/en/press-releases/2023/11/gaza-destroying-civilian-housing-and-infrastructure-international-crime. Notably, even under Israel's interpretation of the principle of proportionality, it would be difficult for them to justify the killing of the 80 UN staff members that have died as the result of their aggressions in Palestinian territory. *See id*.

264. *See generally* Yuval Shany & Amichai Cohen, *International Law "Made in Israel" v. International Law "Made for Israel,"* W. POINT LIEBER INST. (Nov. 22, 2023), https://lieber.westpoint.edu/international-law-made-in-israel-international-law-made-for-israel.

Israel issued in North Gaza. The IDF's warnings have been heavily critiqued by stakeholders to be an act of forced displacement, under the "factual assumption that the true purpose of the Israeli ground operation [was] not to fight Hamas, but rather to ethnically cleanse parts of Gaza"[265] (an accusation which the IDF has strenuously denied).[266] But there are few independent reports undertaken to combat Israel's narrative. The need for such a report is obvious, but in order to generate a convincing counter-narrative, one must have access to credible evidence in the form of dated maps, satellite imagery, and timelines of demolition and construction. Such evidence acts to shed light on the true purpose of these forced displacements.

IV. CONCLUSION: VISIBILITY AND ACCOUNTABILITY THROUGH EVIDENTIARY RESISTANCE TO WARFARE NARRATIVES

Protracted warfare has never been so contentious, and the principles of warfare so misapplied, as is the case today. With the emergence of new, deadlier technologies arriving in the theatres of war each year, the legal field must rise to the challenge of ensuring that humanitarian law is respected, even during the most dire of conflicts. Addressing this challenge, this paper has evaluated how States employ a complex (and perhaps misguided) admixture of rhetoric that confuses jus ad bellum and jus in bello principles to justify violations of the latter by applying principles of the former (namely anticipatory self-defense) by analogy. This has resulted in the targeting of civilians, civilian infrastructure, and non-combatants under International Law. By first deconstructing the rhetoric itself, and exposing the flaw in its logic, this paper was able to argue that these hidden violations could be made visible again through the use of digital forensic evidence.

By showcasing how digital forensics can serve as a new mechanism for introducing accountability into discrete acts in a protracted war, this paper offers a novel solution to the complex issue of combating disinformation and misinformation that States offer to support both the specific actions taken, and the controversial policies that led to the actions in the first place. Allowing powerful state actors to manipulate the narrative in this way only pushes international law further away from its grounding principles, and towards a state of insoluble indeterminacy. However, to combat this practice, digital forensics can uncover fact-finding discrepancies, and subsequently be used by international organizations and judicial bodies to make violations of international law visible again. Ultimately, the evidence-gathering methodology of digital forensics facilitates the truth-seeking mission of the judiciary, which in turn allows the victims of these protracted conflicts to obtain recourse for the harms they have suffered. But more crucially, it

265. *See id.*

266. *See, e.g.*, Holly Patrick, *IDF Tells Northern Gaza Civilians to 'Temporarily Relocate' ahead of Impending Ground Invasion*, INDEP. (Oct. 28, 2023, 2:51 PM), https://www.independent.co.uk/tv/news/israel-gaza-war-idf-invasion.

introduces a novel form of evidentiary and legal resistance to the oppressive mainstream forces that dominate the legal landscape of International Humanitarian law.