

Draft #1**A New Realism (Plausibility)? Exploring the Authenticity of Conflict
Representation in 360° VR and Photography****Part I****Methodology: Context & Rationale:**

In recent years, both photography and 360° virtual reality have become prominent means of documenting and conveying the realities. Photojournalists capture decisive moments in single frames—framing truth through composition, light and context—while immersive VR artists reconstruct entire environments, inviting viewers to navigate and inhabit virtual spaces.

Yet despite their shared goal of bearing witness, these two media are typically studied in isolation.

Photography has a long critical tradition around truth claims, ethical witnessing and the power of a single “decisive moment,” but lacks tools for assessing Presence, immersiveness, and embodiment.

Immersive VR researchers offer metrics for embodiment, place illusion and immersion, yet it seldom addresses the documentary ethics, attribution standards and narrative responsibilities that underpin journalistic practice.

As a result, there is currently no unified evaluation framework capable of comparing how still images and 360° VR each negotiate authenticity, plausibility and ethical integrity when representing reality. Traditional documentary theory addresses still images and film, while game-studies models (e.g. the MDA framework) target purely interactive experiences. Journalism guidelines cover ethics, but lack tools for comparing media with fundamentally different modes of engagement.

This gap makes it difficult to draw systematic conclusions—or to guide creators who wish to blend photographic rigor with immersive engagement. To address this, and to answer the question “A New Realism (Plausibility)? Exploring the Authenticity of Conflict Representation in 360 VR and Photography,”—we require a new, interdisciplinary framework that marries virtual reality theory, immersive-media science, journalistic principles.

Building on Established Theory

Introducing the “M + D + A + J + S + A²” Framework

To bridge the separate worlds of photography and VR, I root this evaluation tool in five established bodies of scholarship—each contributing to one or more of our six critical lenses on interaction, immersion, ethics, narrative, and fidelity.

This new framework—which I've called the M+D+A+J+S+A²—pulls from several places: game-studies (Hunicke, LeBlanc & Zubek 2004), immersive-media science (Slater & Usoh 1994), photojournalism ethics (Lindgren & McDonnell 2018),

documentary narrative (Nichols 2017), and cultural-heritage fidelity (Remondino & Campana 2014). By bring these ideas together, we can finally assess both authenticity and presence in a single model that works across still and immersive media.

In the next section, I'll introduce each of these core pillars—grounding it in its theoretical roots—and then demonstrate the framework's application to leading examples in 360° VR and conflict photography.

Here's a quick roadmap of what's to come:

Lens 1: MDA Framework

1.1 Mechanics (M)

1.2 Dynamics (D)

1.3 Aesthetics (A)

Lens 2: Journalistic Rigor (J)

Lens 3: Storytelling (S)

Lens 4: Authenticity & Plausibility (A²)

With that foundation laid, I'll now unpack each of the four “lenses” in turn—starting with Mechanics.

Lens 1: The MDA framework

The MDA framework—short for Mechanics, Dynamics, Aesthetics—was

proposed by Hunicke, LeBlanc, and Zubek (2004) as a formal model to bridge game design and analysis by highlights the contrast between the designer's and the player's perspectives. It illustrates how designers work from an inside-out approach, crafting foundational rules (Mechanics) that lead to gameplay actions (Dynamics), which are intended to produce a certain feeling or experience (Aesthetics). In contrast, players experience the game from the outside-in, first they perceiving the emotional and sensory feedback before inferring the underlying systems or rules.

One thing be noted is in adapting MDA to documentary media, I'm reframing this iterative process as producer-vs-viewer: producers (photojournalists or VR developers) establish affordances, and viewers perceive presence, agency and authenticity.

1.1 Mechanics (M)

Mechanics pinpoints the rules and affordances — perceived and actual possibilities for action—making visible how design choices shape people's interpretation. In still photography, Mechanics manifests as the technical and compositional tools a photographer uses — like choosing a lens, cropping an image, or using a specific panning and tilt technique. These choices determine what portion of reality is documented and how. In 360° VR, Mechanics contains both active controls (teleportation or rotation) and passive affordances (Initial camera framing or auto-pan sequences). By foregrounding Mechanics, I can systematically assess how the work guide attention and mediate agency even before considering narrative or aesthetic layers.

1.2 Dynamics (D)

Dynamics describe the narrative momentum and behaviors that emerge as mechanics interact over time.

In still photography, Dynamics is evident in the deliberate sequencing of images. The order of each frame generates anticipation, contrast or thematic juxtaposition, guiding the viewer's interpretation. With 360° VR, Dynamics unfold through system behaviors like shader transitions, spatial audio cross-fades or event triggers.

Evaluating Dynamics thus permits a comparison of pacing, viewer orientation and affective engagement, revealing how narrative flow shapes both presence and overall comprehension.

1.3 Aesthetics (A)

In the original MDA model, Aesthetics refers to the designer's intended emotional outcomes which broke down into eight "types of fun" — Sensation, Fantasy, Narrative, Challenge, Fellowship, Discovery, Expression and Submission (Hunicke, LeBlanc & Zubek, 2004).

For documentary media, however, "fun" gives way to presence and empathic resonance. Accordingly, I've adapted Aesthetics to foreground concepts from immersive-media:

Place Illusion & Plausibility Illusion:

The sense that viewers truly "are there" and that events unfolding could actually happen (Slater & Usoh, 1994);

Embodiment and Telepresence:

Embodiment measures how strongly users feel their virtual body is their own, while Telepresence captures the sensation of being displaced into another space entirely (Sanchez-Vives & Slater, 2005).

Amusiveness:

Borrowed from Lombard & Ditton (1997), this term measures the degree of emotional engagement — how compelling and “absorbing” the experience feels.

Sensory Fidelity:

The alignment of visual, auditory (and where applicable, haptic) cues that underpins all presence metrics.

When we look at still photography, aesthetics shows through high-fidelity details, tonal contrast, and compositional depth that trigger empathy or moral urgency in portraits of conflict. In 360° VR, it about high- resolution rendering, 360° spatial audio and a wide field- of- view to sustain place illusion and embodiment. By applying scales, we can rigorously compare how static and dynamic media each leverage visual and auditory fidelity to create a sense of immersion and authenticity.

Lens 2: Journalistic Rigor (J)

Grounded in the society of Professional Journalists’ Code of Ethics (SPJ, 2014) and the Ethics Guidelines for Immersive Journalism (Sánchez Laws & Utne, 2019), this lens evaluates ethical integrity and transparency in conflict representation.

The key criteria include:

Accurate and complete attribution of authorship (SPJ: Seek Truth and Report It;

IJG: Transparency of Source);

Provision of contextual metadata and precise captions (SPJ: Seek Truth; IJG: Contextual Integrity);

Documented informed- consent protocols for subjects (SPJ: Minimize Harm; IJG: Respect for Subjects);

Full disclosure of staging or digital manipulation (Sontag, 1977; Barthes, 1981; Azoulay, 2008; SPJ: Act Independently; IJG: Transparency of Production).

While the SPJ Code of Ethics contains eight principles and the Immersive Journalism Guidelines enumerate additional items (e.g., corporate sponsorship disclosure, accessibility), I've narrowed them down to the ones most directly relevant to evaluating conflict representation in both 360° VR and photography.

By rigorously auditing these factors, Journalistic Rigor ensures us to check whether the credibility is an inherent part of a work.

Lens 3: Storytelling (S)

For this lens, I am drawing on Nichols's taxonomy of documentary modes—expository, observational, participatory, reflexive, poetic and performative (2017) and key principles of interactive narrative design. My focus is on how structural and emotional arcs are constructed and experienced across different media.

In photo essays, narrative is build through sequenced beats—each one acting like

a cinematic "cut" that modulates tension and guides interpretation (Ryan, 2006). In 360°VR experiences, Storytelling often employs two-act or branching architectures that give viewers a sense of agency while still preserving a clear dramatic progression (Murray, 1997; Salen & Zimmerman, 2004).

Here's Key criteria I am using to evaluate this:

(a) Documentary Mode

Does the work consistently apply the conventions of a specific mode (e.g., expository vs. observational)? (Nichols, 2017)

(b) Narrative Architecture

Is the story structured as a clear two-act journey or a meaningful branching path, with each segment corresponding to exposition, conflict and resolution? (Murray, 1997; Salen & Zimmerman, 2004)

(c) Pacing & Emotional Beats

Are the "cuts" (in photo essays) or scene transitions (in VR) timed to build suspense and deliver catharsis? (Ryan, 2006)

(d) Affordance Integration

In VR, do elements like hotspots, branch points and optional detours enhance narrative flow and immersion, or do they risk disorientation the viewer? (Salen & Zimmerman, 2004)

By mapping each work against these criteria, the Storytelling lens reveals how effectively still and immersive media guide audiences through a coherent, emotionally resonant journey.

Lens 4: Authenticity & Plausibility (A²)

The lens quantifies technical markers that build user trust. I am drawing on research into cultural-heritage fidelity, particularly work on photogrammetric accuracy (Remondino & Campana, 2014) and LiDAR quality (Guidi et al., 2014). The goal is to translate "truthfulness" into a set of measurable criteria that lets us compare still photos and immersive media.

Here are the key criteria I'm looking at:

(a) Spatial Resolution

How much detail is captured per unit area? The level of detail captured per unit area (pixels/mm in photos; points/m² in scans) and its impact on the clarity of conflict scene elements (Remondino & Campana, 2014).

(b) Point-Cloud Completeness (VR)

The percentage of surfaces successfully reconstructed in 3D scans. This indicating data-hole frequency and overall scene coverage (Guidi et al., 2014).

(c) Color & Tonal Fidelity (Photography)

Dynamic range, color accuracy and noise levels, which influence emotional realism and image legibility.

(D)Artifact Prevalence

How often do visual errors—like lens distortion or stitching mistakes—appear? These can mislead viewers or make the scene feel less plausible. (Guidi et al., 2014).

By mapping these quantitative indicators onto measures of perceived trust—through standardized survey instruments—Authenticity & Plausibility provides

an objective yardstick for evaluating how faithfully both static photographs and reconstructed VR environments portray real-world conflict scenes.

Pillar	Theoretical Roots	Definition & Focus	Key Criteria & Examples
Mechanics (M)	Hunicke, LeBlanc & Zubek (2004)	Rules and affordances that govern viewer action	Lens choice, cropping, panning/tilt (photos); teleportation, rotation, initial framing, auto-pan (VR)
Dynamics (D)	Hunicke, LeBlanc & Zubek (2004)	Behaviors and narrative momentum emerging as mechanics play out over time	Sequencing (photo essays); shader shifts, audio cross-fades, scripted triggers (VR)
Aesthetics: Sensory Impact & Presence (A)	Hunicke et al. (2004); Slater & Usoh (1994); Sanchez-Vives & Slater (2005); Lombard & Ditton (1997)	Sensory and affective qualities that induce presence and empathic resonance	High-fidelity detail, tonal contrast (photos); spatial audio, wide FOV, realistic locomotion (VR); presence-scale scores
Journalistic Rigor (J)	SPJ Code of Ethics (2014); Sánchez Laws & Utne (2019)	Ethical integrity and transparency in conflict representation	Attribution, metadata & captions, informed consent, disclosure of staging/manipulation
Storytelling (S)	Nichols (2017); Murray (1997); Salen & Zimmerman (2004)	Narrative structure, pacing and emotional arcs	Mode adherence (e.g. expository vs observational), two-act vs branching architecture, pacing/beats, interactivity integration
Authenticity	Remondino &	Technical markers of	Spatial resolution,

&	Campana (2014);	truthfulness, mapped to	color/tonal fidelity
Plausibility	Guidi et al. (2014)	viewer trust	(photos); point-cloud
(A²)			completeness, mesh
			artifacts (VR);
			survey-based trust
			measures

Table 1. Summary of the M + D + A + J + S + A² Framework, Author’s own work
(2025)

With Table 1 summarizing our lenses, we can now move on to the detailed self-assessment questionnaire (see Appendix A) and the case-study analyses.

The Self-Assessment Questionnaire

To translate the six-lens model into repeatable, comparable data, I employed a structured self-assessment questionnaire (see Appendix A for the full form and detailed scoring guidelines). For each case study, I fill out one sheet, tickling the relevant evaluation boxes (for example, framing controls, temporal transitions, point-cloud completeness) and providing evidence found from the work.

Because each completed sheet is several pages long, they are archived separately as individual appendices:

- Appendix B — Clouds over Sidra (VR)
- Appendix C — Aftermath VR: Euromaidan (VR)
- Appendix D — The Falling Soldier (Photography)
- Appendix E — Syria (Photography) by Eddy Van Wessel

Each completed questionnaire is dated, initialed, and archived, providing a transparent audit trail for the analysis that follows.

Works to Be Analyzed

Applying the questionnaire begins with four primary case studies — two VR experiences and two photographic works—selected for their contrasting approaches to presence, authorship, ethics and narrative.

VR:

Clouds Over Sidra (UNVR, 2015) — A humanitarian baseline that builds presence without spectacle (on-location capture, spatial audio, child-height camera placements). It exemplifies how 360° VR can foster proximity to lived experience while preserving dignity.

Aftermath VR: Euromaidan (2019) — A reconstruction rather than passive capture. Its guided navigation, shader transitions and environmental interactions make it ideal for probing when stylised design choices enhance narrative understanding—and when they risk compromising accuracy.

Photography:

The Falling Soldier by Robert Capa (1936) – An iconic “decisive moment” that continues to raise questions about staging, timing and ethical transparency.

Eddy van Wessel, Syria (c. 2012 – 2016) – Contemporary conflict reportage with strong compositional clarity and contextual metadata, useful for testing journalistic rigor and tonal fidelity.

Taken together, these works span all six analytical lenses and allow for cross-media comparison.

In addition to the four primary case studies, I also applied the questionnaire to four further works.

VR: Home After War, Civil War 1864: A Virtual Reality Experience; (Appendix G, H)

Photography: Richard Mosse's, The Enclave, Euben Salvadori, Photojournalism Behind the Scenes. (Appendix F, I)

These secondary examples are not analysed in detail in the main chapters, but their full self-assessment sheets are included in separate appendices (Appendices F–I). They are revisited briefly in the Conclusion to contextualise the findings from the primary case studies, highlight limits of the framework, and suggest directions for future research. (Salvadori's project is discussed theoretically in Section 5: Photography & the Politics of Truth, rather than as a primary case.)



Figure 1: Still from *Clouds Over Sidra* (UNVR, 2015)

With the selection set in place, the analysis begins with Case Study 1: *Clouds Over Sidra* (Figure 1). It is a pre-recorded 360° documentary follows Sidra, a 12-year-old Syrian refugee girl, as she navigates her daily life in the Za'atari refugee camp in Jordan.

In mechanics (M), it's head-tracked only—no teleportation or selection—so the producers retain control while my agency is limited to gaze; child-height placement, centred blocking and spatialised VO gently steer attention. The dynamics (D) are a calm day-in-the-life sequence; soft cuts and narration keep me feel oriented, with no system-level emergence (pre-recorded 360). Aesthetically (A), on-location capture and human-scale staging yield strong place/plausibility illusions and felt telepresence; resolution and occasional seams are era-appropriate and low-salience. On journalistic rigor (J), authorship and provenance are clear; context is work-level rather than per-scene, and consent is reasonably inferred given UN collaboration; no manipulation is disclosed beyond editorial choices. The storytelling blends immersive, first-person elements with a clear, informative narrative, forming a cohesive arc that offers a quiet emotional release. For authenticity/plausibility (A²), there's no scan to audit; so the trust rests on capture continuity and naturalistic colour/tonal rendering.

Taken together, *Clouds Over Sidra* shows me that presence-led 360° VR can deliver a plausibility-driven realism—felt proximity and believable everyday events—when agency is deliberately low and guidance is high. For Part II (*Peace in Ruins*), I take a low-agency, high-guidance approach informed by *Clouds Over Sidra*, prioritising steady orientation and directed attention over interactive choice to maintain presence.



Figure 2: Screen capture from *Aftermath VR: Euromaidan*. (New Cave Media, 2019)

Now that's shift the pivot from *Clouds Over Sidra* to *Aftermath VR: Euromaidan* (Figure 2). It is a multi-layered, immersive virtual reality documentary that meticulously reconstructs the events of February 20, 2014, on Institutska Street in Kyiv, Ukraine. The project uses photogrammetry to create a 3D model of the scene, integrating archival photos, videos, and 360-degree videos.

In mechanics (M), audiences can walk in the photogrammetric environment and open geolocated testimonies and archival photos/videos; the agency feels genuine but remains bounded by a documentary brief—I can move, look and open evidence rather than alter events. The dynamics (D) are user-paced and legible. Orientation is

maintained by the street's topology and curated nodes, and interpretation accumulates through the order I choose and the time I spend at each witness point. Aesthetically (A), I find place and plausibility convincing. High detail scans, naturalistic colour and spatially anchored voices create co-presence, and while slight softness in occluded areas stays minor and never erodes my trust. On journalistic rigor (J), authorship and method are clearly identified, and the team is transparent about its use of photogrammetry and the engine. In Storytelling (S) the work stays coherent while remaining spatially non-linear; user have to assembling evidence rather than following a set plot, and that feels right for the subject and keeps the tone restrained. For authenticity/plausibility (A²), reconstruction adds checkable details that pre-recorded 360° lacks, including scan completeness, mesh quality and precise geolocation, while still preserving a strong sense of being there.



Figure 3: The Falling Soldier (Capa, 1936)

Where Aftermath VR: Euromaidan builds plausibility through auditable reconstruction and bounded agency, the next case compresses testimony into a single frame—Robert Capa's *The Falling Soldier* (Figure 3). The photograph, taken during

the Spanish Civil War, captures a Loyalist soldier at the moment he is presumably shot and falls backward. This image is a powerful symbol of the brutality nature of death in war.

From a mechanics perspective (M), the image is built on framing and timing. The soldier's body tracks a clean diagonal against open sky, the horizon sits low to heighten exposure and vulnerability, and the fast shutter pins the instant before the fall completes. At the level of dynamics (D), it freezes a moment in time but still feels dynamic. The before and after are withheld, but the viewer can supplies them, and the rhythm unfolds in thought rather than on the page. Aesthetically (A), the grain, firm contrast and a touch of motion blur create a sense of urgency and pull audience into empathy without any multisensory machinery.

On journalistic rigor (J) the byline is uncontested, it is Robert Capa's picture. But the surrounding record is uneven. When first published, this image appeared in print with minimal and occasionally inaccurate captioning.

At the moment, there is no contemporaneous notes clarifying whether the scene is staged or candid. Nor there is a continuous contact sheet sequence to audit the moments before and after the exposure; surviving material was compiled from cut-up contact sheets, which complicates reconstruction of the exact shooting context (Reuters, 2008).

The international Center of Photography's research around the "Mexican Suitcase"

(the cache of Spanish Civil War negatives rediscovered in 2007-2008) shows the extent to which negatives from Capa survived in fragmentary rolls rather than full, in ordered strips. This complicates efforts to reconstruct exact shooting circumstances frame by frame. Later witness statements and scholarly analyses similarly present conflicting versions. Richard Whelan (2003), Capa's biographer and long-time curator, argued in *Aperture* that the photograph is authentic, assembling eyewitness accounts and sequence logic to support the photo is an on-the-spot death rather than a staged fall.



Figure 4: (a) Reference panorama near Espejo with the valley sill; (b) Same view with the skyline contour traced; All panels reproduced from Susperregui (2016).



Figure 5: (a) Capa's frame; (b) Overlay showing mismatched ridge breaks; All panels reproduced from Susperregui (2016).

On the contrast, Susperregui who is a professor of audiovisual communication at

the Basque Country in northern Spain reach different conclusion. He traces the horizon in Capa's photograph and compares it with contemporary panoramas and cartographic data from candidate sites (see figure 4a-b). The skyline-matching test (compare Fig. 4a-b with Fig. 5a-b) shows that the ridge profile in Capa's frame does not align with Cerro Muriano, the traditionally cited location, which suggests the caption is likely inaccurate. Without a complete contact sheet to confirm the camera's position, the terrain's profile remains the most persuasive available evidence (Susperregui, 2016).

Read alongside the shifting captions and the missing frame sequence, Susperregui's terrain test reinforces the central tension, the image conveys a powerful sense of truth, yet its supporting evidence is insubstantial. In authenticity and plausibility (A²) terms, the emotional truth is strong, but verification is fragile.





Figure 4: The Fall of Saddam Hussein - Iraq

Instead of focusing on one highly contested icon, I turn to a sustained series where context unfolds image by image. Eddy van Wessel's Iraq work (Figure 4) stays close and tense that lets those judgments build across scenes. Wide lens, low vantage points and tight crops keep the viewer inside the zone of risk and foreground elements like, barbed wire, torn posters are up against the eye, so agency resides in the photographer's timing and framing. The monochrome approach simplifies scenes to light, texture, and gesture, boosting their agency and strong contrast and visible grain convey the tension of the situation, and close-up framing also creates an immediate sense of presence without needing additional sensory input.

On rigor, authorship is clear and captions anchor place and action. But the absence of publicly available frame sequences or original capture metadata means verification leans on outlet standards and professional reputation which is a familiar constraint of photojournalism. Narratively, the set holds together as an observational sequence that each image reads at a glance and emerges richer meaning in relation to its neighbors. In authenticity and plausibility terms, resolution and tonal fidelity are sufficient for environment, and the scenes feel lived. Yet, single frame limits remains, context may fall outside the crop.

Comparative Synthesis: VR vs Photography (across M + D + A + J + S + A²)

Stepping back from the individual readings, a clear pattern emerges. VR and photography arrive at authenticity by different routes, and the trade-offs repeat across throughout the entire body of work.

Mechanics (M)

Photography fixes the frame and hands agency control over to the photographer. Capa and van Wessel show how lens choice and time pre-structure what a viewer can know. VR shifts that balance. In *Clouds Over Sidra*, gaze is the only control and guidance is high, which keeps orientation steady. In *Aftermath VR: Euromaidan*, movement and object-level inspection are possible. Across the secondary VR examples the same thing holds: low or bounded agency reduces the risk of drift while preserving the sense of being there.

Dynamics (D)

Single images compress time into a decisive beat; it build rhythm by sequencing.

That gives photography instant readability, but context sits off-frame and must be supplied by captions or association. On the other hand, Virtual reality sacrifices instant impact for a gradual build up of experience. When agency is limited and guidance is explicit, the self-paced flow remains coherent instead of becoming disorganized.

Aesthetics (A)

VR's strength is felt co-location, such as, head tracked view, spatial audio, human-scale placement. Even with the era typical resolution limits or minor stitching, presence still carries. Photography's strength is iconic compression: grain, contrast and gesture create urgency and moral proximity in a single glance. Both media can be moving, they simply do it differently. VR leans on telepresence and plausibility illusion, photography rely on compositional intensity.

Journalistic rigor (J)

Photography comes with established newsroom habits: captions, credit lines, and (ideally) chain-of-custody. Yet it is still vulnerable to uncertainties of staging, vantage and context, which clearly demonstrated by the Capa controversy. VR is newer in newsrooms, so ethical scaffolding varies. Reconstructed projects can source explicitly about geolocation, scan notes placed where events occurred. That is quite promising, provided disclosures are visible to viewers and not only buried in press kits.

Storytelling (S)

Photography tends to produce tight micro-narratives, VR on the other hand can follow a guided two-act journey or a spatial, investigative assembly. The risk in VR is

cognitive load; the risk in stills is over-reliance on captions to carry meaning that the frame cannot contain. In the strongest examples on both sides, prioritizing moderation over ostentation leads to a consistently clear and logical development.

Authenticity & Plausibility (A²).

Here the media diverge most. A single photograph can offer captions, but verification beyond the frame remains difficult. I will discuss this issue in the later part Photojournalism Behind the Scenes as main example (See Appendix F). By contrast, a well-built VR reconstruction can add auditable markers on top of presence: mesh scan, precise geolocation, source clips anchored to place.

Using Photography to Stress-Test VR

Stepping back from the comparison, VR in journalism is still emerging, and the evidence base is thin, so I use photography's long record as a stress-test and reference class. If still images have struggled with truth claims for over a century, what does that history help us anticipate and avoid in VR?

In this section, I will trace how “truth” has been steered by mechanics, captions, editorial habit, and—more recently—computational tools. With that baseline in view, I can judge more precisely where VR genuinely adds accountability and where it risks repeating old problems under a new name.

If we look back through photographic history, it is clear that manipulation has been present from the start. Photographers altered what the camera recorded - through depth of field, exposure, focal length, shooting angle, darkroom techniques and later

digital editing - so that the correspondence between the original and the reproduced object was never one to one.

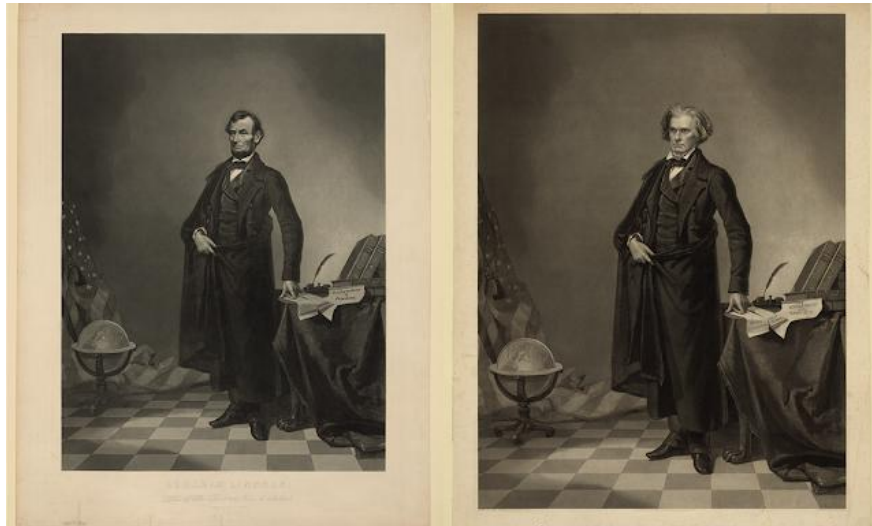


Figure 5: Abraham Lincoln's head composited onto John C. Calhoun's body (Anon, 2022)

A classic example is Figure 5 (Anon, 2022), it is a composite in which Lincoln's head was placed onto the body of Southern politician, John C. Calhoun. As Walia notes, Calhoun's figure derives from a woodcut while Lincoln's head comes from Mathew Brady's celebrated portrait - the same source later used for the U.S five dollar bill (Walia, 2018).



Figure 6: Soviet censorship with Stalin. (Cantons-de-l'Est, 2019)

In politics, manipulation becomes strategic. Under Stalin, officials who fell out of favor with Stalin were executed and those who had previously been photographed with Stalin would be literally removed from photographs to sustain the myth of an infallible leader; Figure 6 shows how cropping and retouching erased former allies from the visual record (Cantons-de-l'Est, 2019).

As photography shifted from black-and-white to color and from film to digital, such interventions only became faster and more pervasive. Even in domains that most prize authenticity, reliability and objectivity cannot be taken for granted.



Figure 7: Photojournalism Behind the Scenes (Salvadori, 2018).

Ruben Salvadori's project Photojournalism Behind the Scenes (Figure 7) makes this visible from within the field. By showing photographers at work, he demonstrates how angle choice and the exclusion of certain elements can direct meaning. In his work, challenges the notion of absolute truth and the idea that journalists are just witness that they have no influence on their images (Ruben, 16:05). As David

Hockney said, “Photography is all right if you don’t mind looking at the world from the point of view of a paralyzed Cyclops—for a split second.(The David Hockney Foundation, n.d.).” Salvadori’s example is a sharp reminder that both computational tools and human subjectivity shape what we take as evidence. Even inside journalism, those factors will complicating any claim that photography straightforwardly and infallibly delivers the truth.

The same pressures that trouble photographic “truth” reappear in VR, just with different levers. Capture and reconstruction are never neutral: Where I place the 360° rig, which scans I include or omit, how I light, denoise or stitch, and what I let the user see (and not see) all shape the story. The amount of agency I give a viewer quietly determines what becomes central and what what gets lost. That choice architecture is a bias itself, as it sets defaults, nudges attention, and hides dead-angle as surely as a photographer’s crop.

That said, VR can still present context in ways a still image struggles to do. A 360° sphere preserves what’s usually outside the crop; parallax and true scale let viewers judge distances and sight-lines rather than infer them. Spatial audio restores what’s off-camera, so events behind user still register. Walkable or guided movement exposes what was behind the truck, who stood by the doorway and lets cause-and-effect play out over time instead of relying on the audience's interpretation. Designers can layer multiple perspectives (Standpoints for each eyewitness), and align archival photos to their real locations. Of course, none of this makes VR inherently more “true”, but it does offer more places to put accountability (If we

design for it).

Conclusion to Part I:

This section built and tested the $M + D + A + J + S + A^2$ framework across four primary cases, with more in the appendices. The goal was simple, see what each medium can and cannot credibly claim.

Provisionally, the balance tilts toward VR's ability to provide promise, when agency is low or bounded, guidance is strong, and provenance is visible. In that configuration VR can feel more plausibly real in the moment. By contrast, a photographer's crop and composition can narrow context and, at times, undermine credibility. But I cloud not treating this as a fixed conclusion.

Finally, the scope is selective rather than exhaustive. I chose exemplars that stress different parts of the framework instead of attempting a complete survey of XR and war photography. Unavoidably, biases tied to language and geographical regions remain; future work should broaden to non-English corpora.

I now carry these insights into *Peace in Ruins*, testing a low-agency, high-guidance VR approach to see whether experiential plausibility can be upheld while strengthening accountability.

