

How to Touch the Elephant

Shifting Modes of Witnessing in
Attending to the Ecological Trauma
of post-Agent Orange Landscapes
in Vietnam

Keywords: Agent Orange, Multigenerational, Ecological Trauma,
Slow Violence, American War in Vietnam



Research Statement



Fig. 1: Hiền Hoàng, *Residue Transfer Study No. 1* (2025), archival photograph printed on paper, corrosion residue from aluminum plates reacting to copper sulfate, 5 x 9 cm. Original image source: Agent Orange Subject Files, The Vietnam Center and Archive, Texas Tech University.

This research proposes *shifting modes of witnessing* as a framework to attend to the *ecological trauma* of post-Agent Orange landscapes in Vietnam. It begins with a Vietnamese folklore I grew up with: five blind *thầy bói* (Vietnamese for fortune-tellers), each touching only a fragment of an elephant, mistake their part for the whole and each insists their claim is the truth. The fortune-tellers become the figure for domain-based systems of inquiry. The research argues that no single mode can hold the slow, diffuse, and multigenerational character of ecological violence of Agent Orange.

Agent Orange was one of the herbicides deployed by the U.S. military during Operation Ranch Hand in Vietnam from 1961 to 1971. It saturated the land and the bodies living on it with dioxin, one of the most toxic substances known. Decades later, the landscapes and the bodies still carry it.¹ Yet existing accountability mechanisms have failed to adequately address the harms caused by Agent Orange,² partly because the *slow violence*, as Rob Nixon theorizes, is characterized by a spectacle-deficit and a temporal scale that exceeds human perception and institutional memory.³ Operating at the intersection of artistic practice, ecological trauma, and more-than-human theory, the research turns to practice-based artistic inquiry as an alternative form of witnessing. It asks how artistic practice can generate *modes of witnessing* to attend to the ecological trauma in these landscapes.

This research carries personal stakes. My Vietnamese heritage is inseparable from the war's aftermath, which is not a past event in my family's life. The bomb fragments inside my father's body have never been removed. They are

¹ The history of Operation Ranch Hand, including the decision-making processes behind the deployment of herbicides and the development of the term *ecocide*, is documented in Zierler (2011). The chemical composition of Agent Orange, its dioxin content, and the documented effects on the Vietnamese landscape and population are detailed in Committee on the Effects of Herbicides in Vietnam (1974). Both sources confirm the persistence of contamination well beyond the cessation of spraying operations in 1971.

² Two landmark cases illustrate this failure. *In Re Agent Orange Product Liability Litigation* (597 F. Supp. 740, E.D.N.Y. 1984) resulted in an out-of-court settlement that excluded Vietnamese victims entirely and set no precedent for environmental liability. *Trần Tổ Nga v. Monsanto et al.* (Tribunal Judiciaire d'Évry, RG 14/04980) was filed in 2014 and has proceeded through multiple hearings; the 2021 ruling dismissed the case on jurisdictional grounds, though appeals have continued through 2024. Together, the two cases demonstrate that neither tort law nor civil

evidence of the war, *traces of trauma*, but also testimony to the capacity of matter and bodies to resist and refuse violence. Attending to the *trauma* of the landscapes is, in part, attending to that inheritance.

Drawing on Cathy Caruth's theorization of trauma, this research argues that the violence done to Agent Orange-affected landscapes operates according to a similar logic: inaccessible, resistant to linear narrative, and recursive return.⁴ Susan Schuppli's concept of *Material Witness* provides a foundation here: soils, waterways, flight paths, and spraying maps all carry evidentiary and affective weight.⁵ This research extends Schuppli's framework by arguing that the artist is equally implicated as witnesses. The movement between modes of practice constitutes the act of witnessing itself.

Shifting modes of witnessing names this movement: between material experimentation in the studio and embodied fieldwork in contaminated landscapes in Vietnam, between speculative reconstruction and direct ecological encounter. Drawing on Bruno Latour's *An Inquiry into Modes of Existence*, this research proposes the *double pass*: the artist is seen as the necessary transit point through which the network becomes legible, and through which the artist's own position is continually transformed.⁶



Fig. 2: Hiền Hoàng, *Corrosion Study No. 1* (2025), found aluminum plate, copper sulfate, 12 x 8 x 1,2 cm.

litigation has produced adequate accountability for the multigenerational and ecological dimensions of Agent Orange's harm.

³ Rob Nixon develops the concept of slow violence in *Slow Violence and the Environmentalism of the Poor* (2011), defining it as violence that occurs gradually and out of sight, dispersed across time and space in ways that defy the representational conventions of spectacle. Unlike the immediate, explosive violence that commands media attention and legal response, slow violence accumulates incrementally, making it resistant to both public perception and the evidentiary requirements of juridical institutions. Nixon argues that this temporal and representational gap is not incidental but structural. It is what allows such violence to continue unaddressed.

⁴ The theorization of trauma drawn on here derives from Cathy Caruth's *Trauma: Explorations in Memory* (1995). Traumatic memory is distinct from narrative memory: where ordinary memory is integrative and social, traumatic memory is inflexible, involuntary, and resistant to linguistic organization. It is structured by what is called *restitutio ad integrum*: the automatic, total return of a traumatic episode when any one of its elements is triggered. The Freudian lineage informing Caruth's framework concerns the compulsion to repeat: the traumatic event is not remembered so much as re-enacted, returning without being fully owned or narrativized. This research extends this logic from the human subject to the contaminated landscape, asking what the equivalent of trauma might be for soil, water, and forest.

⁵ Susan Schuppli develops the concept of *Material Witness* in her 2020 book of the same name, arguing that matter itself, for example film stock, satellite imagery, environmental residue, can function as a witness to events that human observers could not access or chose not to see. Materials are not passive records but active participants in the production of evidence: they register, retain, and ultimately testify to the conditions of their exposure. The spraying maps and aerial photographic surveys included in the 1974 National Academy of Sciences report (*The Effects of Herbicides in South Vietnam*) are precisely this kind of material witness: produced by the military



Fig. 3: Hiền Hoàng, *The Slow Sculpture: Ground* (2026–ongoing). Steel, corrosion. 90 x 90 x 40 cm

Research Context

This research sits at the intersection of three fields: the historiography and ongoing juridical contestation of Agent Orange; ecological trauma theory; and practice-based artistic inquiry into environments of military and chemical violence.

Within the legal and scientific literature, Agent Orange remains a site of unresolved accountability. Existing frameworks (tort law, environmental regulation, humanitarian law) have failed to address its multigenerational and ecological dimensions.⁷ Rob Nixon's theorization of *slow violence* provides the critical vocabulary for this failure: violence that is dispersed across time and space resists the evidentiary requirements of institutions built around spectacle and event.

The concept of *ecological trauma*, as developed here, extends Cathy Caruth's account of trauma to the landscape itself. While Caruth theorizes trauma as it operates in human subjects and narrative, this research proposes that contaminated landscapes exhibit an analogous structure: the harm is ongoing, diffuse, and not fully available to direct witnessing or forensic capture.⁸

Within artistic practice, several bodies of work constitute the immediate field. Harun Farocki's *Nicht lösches Feuer* develops the interscalar logic: the burning cigarette as portal to destruction in Vietnam.⁹ Farocki's work informs the proxy method of material intervention with metal and mycelium. Susan Schuppli's *Material Witness* and Jane Bennett's *Vibrant Matter* establish the theoretical ground for reading non-human matter as bearing

apparatus that deployed Agent Orange, they now carry evidentiary weight that exceeds their original administrative function, documenting the scale and distribution of contamination across the Vietnamese landscape in ways that juridical frameworks have consistently failed to act upon.

⁶ In *An Inquiry into Modes of Existence* (2013), Latour introduces NET (as for network) as a mode of inquiry that traces connections across elements without being confined to any single domain. Unlike domain-based inquiry, NET moves freely between elements but loses the ability to distinguish their differences. The network proceeds not smoothly but by leaps: 'Behind the concept of network, there is always that movement, and that surprise' (pp. 33). The pass is the transit point through which elements of the network cross over and come to exist in relation to one another. This research extends the concept in two directions: the artist as the pass through which the contaminated landscape becomes legible, and the network as the pass through which the artist's own position is continually transformed. Neither remains unchanged by the crossing. This reciprocal movement is what this research calls the double pass.

⁷ For a detailed analysis of both cases, see the footnote 2. Schuppli's chapter 'Toxic Tort' in *Material Witness* (2020, pp. 149–160) extends this analysis further. Examining the In Re Agent Orange trial, she identifies the central problem as causality under conditions of indeterminacy: the dispersed and multigenerational nature of dioxin contamination made it structurally impossible to establish the direct causal chains that tort law requires. The case was settled out of court, excluding Vietnamese victims entirely. Schuppli frames this not as a failure of individual legal proceedings but as a systemic condition: existing legal frameworks are structurally inadequate for harms that are dispersed across indeterminate actors and contexts. It is precisely this gap that this research takes as its starting point.

⁸ For details, see the footnote 4 about the theorization of *Trauma* by Cathy Caruth.

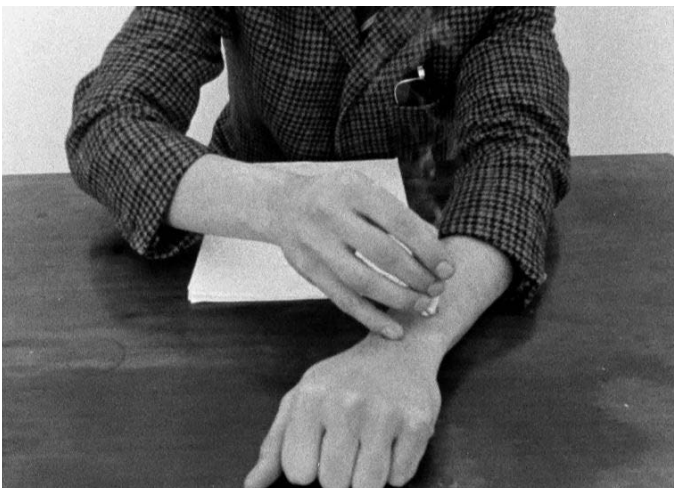


Fig. 4: Harun Farocki, *Nicht lösches Feuer* (1969)



Fig. 7: Hiền Hoàng, *Constellation I* (2026–ongoing).
3 corroded UV-printed plates, with motifs from
research trip in Vietnam 2026, steel frame. 60 x 120 x
40 cm. Plates dimension: 57 x 40 x 0.7 cm, 57 x 20 x
0.7 cm, and 40 x 27 x 0.7 cm.



Fig. 8: Hiền Hoàng. *Corrosion Study with UV Print No. 1* (2026), corrosion on UV printed aluminum, with motif captured from the site visit at Biên Hoà, one of the dioxin hotspot in Vietnam, 57 x 40 x 1 cm.

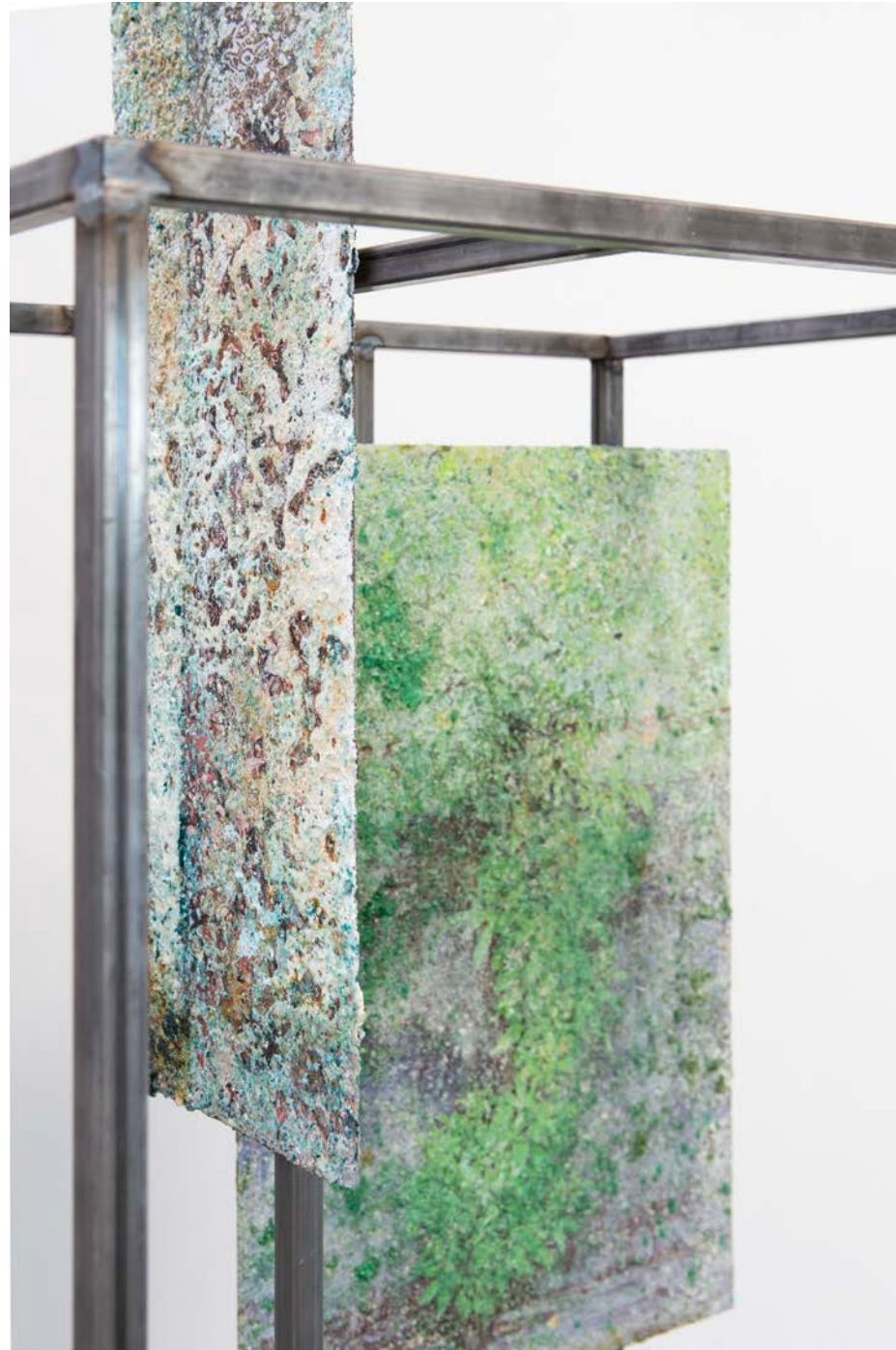


Fig. 9: Hiền Hoàng, *Constellation II* (2026–ongoing).
2 corroded UV-printed plates, with motifs from
research trip in Vietnam 2026, steel frame. 100 x 20
x 70 cm. Plates dimension: 57 x 40 x 0.7 cm, and 57 x
20 x 0,7 cm.

Research Methods

The methodology operates in two interconnected registers: a review of historical, juridical, and scientific literature, and a set of practice-based methods conducted across studio and field settings.

The literature review spans the historiography of Agent Orange, its contested juridical record, and the scientific literature on dioxin contamination and multigenerational effects. Its purpose is to establish the conditions under which the *slow violence* of Agent Orange operates as a methodological constraint on the research itself. It shapes what can be accessed, measured, or represented.

The practice-based methods consist of three activities: material intervention in the studio (corrosion experiments with metal plates and the introduction of corroded material to mycelium cultures); embodied drawing on-site in contaminated landscapes in Vietnam; and data work conducted both in the field and in the lab. The structural movement between studio and field gives rise to the three *modes of witnessing*:

- *See*: material intervention in the studio, in which non-human matter (metal, mycelium, corrosion) is positioned as witness to the violence processes.
- *Touch*: embodied presence on-site in Vietnam: durational drawing, physical contact with contaminated ground, and the sensing body as instrument of inquiry.

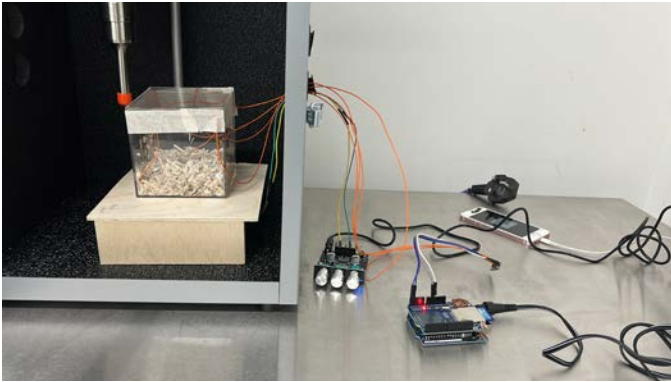


Fig. 10: Hiền Hoàng, *Mycelium Intervention No. 1* (2025–2026), mycelium experiment with electrical signal measurement, while exposing the organism to corroded metal plates and extracted tree's data, variable dimension.



Fig. 11: Hiền Hoàng (2026), soil mapping and drawing, while measuring the soil's electrical signal in Biên Hoà, one of the Dioxin hotspot in Vietnam.

- *Ngẫm*: a Vietnamese term for a sustained, slow working-through process, created by productive confrontation with accumulated material and experience. This is where data analysis, sonification, theoretical reflection, and engagement with artist interlocutors take place.

These three modes function as the umbrella methodology of the research. Knowledge is understood here as emerging not from within any single mode but through the act of shifting between them.

Significance of Research

Much like the bomb fragments that became part of my father's body, attending to the trauma of the post-Agent Orange landscapes is the way I can attend to the war's aftermath I was born into. This research is rooted in that inheritance.

Academically, this research makes three contributions. First, it develops *ecological trauma* as a category for practice-based research in post-toxic and post-military landscapes. This extends Caruth's framework beyond the human subject. Second, through the concept of the *double pass*, it proposes an original account of the researcher-artist as witness. This research extends Schuppli's *Material Witness* to implicate the artist within the networks under investigation. Third, the *shifting modes of witnessing* framework offers a methodological model for practice combining material, embodied, and archival approaches. It is applicable beyond Agent Orange to other post-violated landscapes and other forms of slow, diffuse harm.

Artistically, the research contributes a body of work: material interventions, embodied drawings, data sonification, and site-based performances. This expands the field of practice in relation to military ecocide and toxic inheritance. It also offers a navigational model for other practitioners who work across material, embodied, and historiographic methods at the same time. The research raises visibility of Agent Orange’s ongoing ecological and multigenerational dimensions through exhibitions, workshops, symposia, and published writing.

The significance extends beyond Vietnam. Military environmental violence has been systematically exempted from the international frameworks designed to address ecological harm, a structural condition of which Agent Orange is one instance.¹¹ What begins here as an inquiry into one landscape is also a contribution to a broader project: attending to violence that institutional systems have agreed not to see.

¹¹ Military actions were exempted from the 1997 Kyoto Protocol emission targets, and the Paris Climate Agreement created no legal obligation for militaries to reduce emissions (Crawford, 2019; Parkinson, 2020). The US Department of Defense is the world’s largest institutional producer of greenhouse gases, having produced over 3,685 million metric tonnes of CO₂ between 1975 and 2018 (Crawford, 2019). Combined global militaries are estimated to contribute 6% of the total global carbon footprint (Parkinson, 2020), yet remain largely unaccounted for in international climate policy.



Fig. 12: Hiền Hoàng, *Corrosion on Sculpture Study No. 3* (2025–2026), corroded aluminum stripes, found tree log, plant, variable dimension, photo taken during the elective exhibition *Capital Shadow* at Royal College of Art London.

Annotated Bibliography

Juridical and historical literature about Agent Orange:

- Committee on the Effects of Herbicides in Vietnam, National Academy of Sciences, Washington, D.C. . 1974. *The Effects of Herbicides in South Vietnam, Part A - Summary and Conclusions*. Washington D.C: National Academy of Sciences.
- *In Re Agent Orange Product Liability Litigation*, 597 F. Suppp. 740 (E.D.N.Y. 1984). 1984.
- *Tran To Nga c. Monsanto et. al.* 2021. RG 14/04980 – DB3Q-W-B66-JT73 (Tribunal Judiciaire D’Evry, May 10).
- Zierler, David. 2011. *The Invention of Ecocide Agent Orange, Vietnam, and the Scientists who Changed the Way We Think about the Environment*. University of Georgia Press.

These sources form the historical, and juridical foundation of the research. The 1974 NAS report documents the chemical composition of the herbicides, their effects on the Vietnamese landscape, and includes spraying maps and photographic evidence. *In Re Agent Orange* (1984) and *Trần Tố Nga v. Monsanto et al.* (2021) trace the repeated failure of legal frameworks to address the harms caused to victims and landscapes. David Zierler’s *The Invention of Ecocide* provides a historical account of Operation Ranch Hand and the process by which the term *ecocide* came to be formulated.

Theory on Violence, Trauma, Matter Agency, Witnessing, and Memory:

- Bennett, Jane. 2010. *Vibrant Matter: a political ecology of things*. Duke University Press.
- Caruth, Cathy. 1995. *Trauma. Explorations in Memory*. Baltimore, and London: The Johns Hopkins University Press.
- Latour, Bruno. 2013. *An Inquiry into Modes of Existence. An Anthropology of the Moderns*. Harvard University Press.
- Nixon, Rob. 2011. *Slow Violence and the Environmentalism of the poor*. Harvard University Press.
- Schuppli, Susan. 2020. *Material Witness: Media, Forensics, Evidence*. MIT Press.

Rob Nixon and Cathy Caruth provide the structural vocabulary for this research: Nixon for slow, dispersed violence; Caruth for a theory of trauma that this research extends from the human subject to the landscape. Jane Bennett and Bruno Latour ground the engagement with non-human matter as active and relational. Susan Schuppli’s *Material Witness* is the most direct interlocutor: her account of matter as bearing evidentiary weight is the foundation from which this research develops its argument about the artist as witness.

Artistic References:

- Chung, Tiffany. 2018. *Vietnam, Past is Prologue*. New York: Smithsonian American Art Museum
- Farocki, Harun. 1969. *Nicht löschesbares Feuer*. (Inextinguishable Fire)
- Lê, An-My. 2005. *Small Wars*. New York: Aperture.
- Slavick, Elin O'Hara. 2007. *Bomb after Bomb: A Violent Cartography*. Milan: Charta.
- Truong, Hong-An; Slavick, Elin O'Hara. 2010. 'War, Memory, the Artist and the Politics of Language'. *The Asia-Pacific Journal: Japan Focus*, Vol. 8, Issue 31, No. 3. http://www.japanfocus.org/-Hong_An-Truong/3393

These four works are the closest artistic predecessors to this research. Farocki's *Nicht löschesbares Feuer* informs the material intervention method through its interscalar logic. An-My Lê's *Small Wars*, Tiffany Chung's *Vietnam, Past is Prologue* and Elin O'Hara Slavick's *Bomb after Bomb* produce knowledge about military violence through displacement: restaging and cartography respectively. Truong and Slavick's conversation is cited in footnote 10.

Other sources:

- Crawford, Neta C. 2019. *Pentagon Fuel Use, Climate Change, and the Costs of War. Summary*, Boston University.
- Parkinson, Stuart. 2020. *The Environmental Impacts of the UK Military Sector*. Lancaster: Scientists for Global Responsibility.

Crawford (2019) and Parkinson (2020) document the scale of military environmental impact and the systematic exemption of military activity from the frameworks designed to address it. Together, the two reports establish that the failure to hold military activity accountable for environmental harm is indeed structural.