How a Citation Error Became Certified Knowledge

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P&D Conference 2026 / 15–17 October, Prague
15-minute presentation / 1957 words / English

Slide 1 How a Citation Error Became Certified Knowledge

00:00–00:54 / 54 seconds

As soon as we began circulating information about this conference, I repeatedly received links to one article. People recommended it as an excellent example of research on the environmental consequences of war. I examined it and had to make a public statement. My assessment was direct: this is shoddy scholarship. The judgment concerns identifiable failures in a published text. Today I will show you the evidence. The article is O. A. Gordienko's Impact of War on Soils, published in Eurasian Soil Science in 2025. This presentation comes from the Laboratory of Information Systems. Our object is the process by which an unsupported statement acquired the institutional appearance of dependable knowledge. The institutions involved deserve examination alongside the author.

Slide 2 The article recommended as a model

00:54–01:51 / 57 seconds

The recommendations exposed a problem of reception. People saw the subject, the journal and the publisher's platform, and treated the article as a useful contribution. War-related soil damage deserves investigation. That importance makes poor scholarship more consequential. A neglected field needs dependable evidence. A weak review can become an introductory reference precisely because readers have few alternatives. Its categories begin to organize the subject. Its estimates begin to circulate. We therefore asked what the article actually established. We did not begin by counting the formal signs of publication. We began by opening a source. The result was an elementary discrepancy at the centre of the paper. Recognition had outrun verification. The article had become an example before its central claim had survived an elementary check.

Slide 3 Institutional authority and evidential validity

01:51–02:49 / 58 seconds

The distinction is straightforward. Publication gives a text institutional standing. Evidential validity depends on work that people must actually perform. An author must establish correspondence between claim and source. A reviewer must challenge consequential weaknesses. An editor must decide whether the manuscript performs the work its genre promises. A publisher distributes the result under recognizable institutional names. Databases record and expose it to readers. These responsibilities differ, but the error remains the same error throughout the process. One participant cannot make it valid by trusting another participant. In this case, the external signs of scholarship

survived while a basic evidential relationship failed. That is the mechanism examined here. We call the result certified knowledge because readers encounter the text through institutions that signify prior scientific scrutiny.

Slide 4 The audit

02:49–03:47 / 58 seconds

We traced the global estimate to reference fifty-nine. We reconstructed the arithmetic. We examined how the review defines its object and how its bibliography represents affected territories. We then compared the conclusion with the synthesis expected from a review. This is a public-text audit. The evidence does not require access to anonymous reviewers or confidential editorial correspondence. The published outcome is enough to establish that the central error survived the process. We do not know every internal action that preceded acceptance. We can determine what the resulting article says and whether its cited source supports it. The accompanying case study develops the wider analysis. Here we concentrate on the failures that an audience can inspect and reproduce. Elementary verification should have made these defects consequential before publication.

Slide 5 The central source error

03:47–04:43 / 56 seconds

The first page supplies the central estimate. The abstract gives 121,406 square kilometres and 0.024 percent of the Earth’s total surface as the area affected by wars. The introduction connects the estimate to forty-five countries and reference fifty-nine. That reference leads to a Military Times article about the land held or administered by the United States military. The source reports a property portfolio. The scientific review presents a global measure of war-affected territory. Those are different objects. Some military properties may have contaminated soils. Some battlefields may belong to no military property portfolio. Neither possibility repairs the substitution. The citation cannot support the global claim assigned to it. A source exists, but the relationship that makes a source evidence has failed.

Slide 6 What the cited material actually shows

04:43–05:39 / 56 seconds

This is the infographic associated with the cited Military Times material. Read its subject. It maps the share of each American state occupied by military sites. Its explanatory text describes ownership, leases and operations. It explicitly includes family housing and civilian workplaces alongside military activities. The graphic gives 26.9 million acres, whereas the Military Times text uses the approximate figure of nearly thirty million acres. That difference also matters when a later paper prints a result to the nearest square kilometre. Neither source presents a global inventory of war-damaged soils. The image makes the category visible. An administrative land portfolio became an environmental damage estimate during citation. Anyone who opened the reference could have identified the mismatch. The journal published it nevertheless.

Slide 7 Reconstructing the number

05:39–06:33 / 54 seconds

Thirty million acres multiplied by the conversion factor produces approximately 121,406 square kilometres. This reproduces the published value. We infer the likely calculation from that numerical match. We have not inspected the author's working files. Dividing the result by roughly 510 million square kilometres produces about 0.0238 percent, which rounds to 0.024 percent. That denominator covers the entire planetary surface, including oceans. The arithmetic can therefore be reconstructed. It cannot validate the scientific meaning. Even choosing land area as the denominator would leave the numerator measuring the wrong object. A mathematically consistent calculation carries an unsupported proposition. The display of precision makes the substitution easier to trust. It supplies no measurement of the global extent of war-affected soils.

Slide 8 Soil without differentiated soils

06:33–07:31 / 58 seconds

The wider audit asks what the article means by soil. The term moves between land surface, excavated material, a profile and a receptor for contaminants. These meanings require relationships and distinctions. In the supplied case study's audit, six recognizable soil names appear in the main text, excluding names found only in reference titles. Each occurs once. The important finding is their analytical role: soil classification does not organize a sustained comparison. A review of war impacts should explain why different soils respond differently to similar disturbances. It should distinguish sampling depths, baselines and times since disturbance. Isolated names cannot perform that work. Repetition of the word soil gives the paper a disciplinary subject. It does not adequately differentiate the object that the review promises to investigate.

Slide 9 Ukraine and the selection of expertise

07:31–08:30 / 59 seconds

The accompanying bibliographic audit records 106 references and one Ukrainian soil-science paper, published in 2017. It identifies no Ukrainian source on wartime damage to Ukrainian soils. The contemporary damage estimates in the Ukraine passage rely on reference eleven, a 2023 paper by Drozd. That dependence is visible in the published paragraph. A review should examine how its source selection shapes the account. It should compare evidence produced within affected territories and explain geographical or linguistic exclusions. Here, the selection concentrates authority in one account while leaving Ukrainian expertise outside the reconstruction. This is our analytical judgment about the review's coverage. A bibliography can be long while its treatment of a consequential case remains narrow. The number of references cannot substitute for examining whose evidence the article actually uses.

Slide 10 A review without adequate synthesis

08:30–09:26 / 56 seconds

A review should transform a body of literature into an assessment. It should identify which findings are comparable, where methods differ and which conclusions depend on weak evidence. A narrative review can perform those tasks without adopting a systematic-review protocol. The criticism does not depend on imposing one mandatory format. The article groups impacts and supplies historical

examples, but its conclusion does not adequately assess the evidential strength of the assembled literature. General statements about destruction cannot resolve contradictions or establish a research agenda. Our assessment is that the text functions as an unsystematic descriptive compilation. The review label gives it a stronger institutional identity than its analytical work justifies. Calling a compilation a review does not supply the missing synthesis.

Slide 11 Springer Nature Link and the journal

09:26–10:24 / 58 seconds

The second image shows the journal's public presentation on Springer Nature Link. The page displays Springer and Pleiades Publishing, describes the journal as peer reviewed, and lists Scopus among its indexing services. These names matter because they help the article acquire trust. Institutional recognition expands the duty to investigate visible defects. The journal's publishing information also describes subscriptions and payment for access to individual articles, alongside an open-access option. The commercial system distributes a text whose central citation fails an elementary test. That is a defensible criticism of the product and its quality control. This case provides no evidence that the author purchased acceptance. It demonstrates something sufficient for accountability: prestigious branding and commercial distribution did not prevent an unsupported global claim from entering the scientific record.

Slide 12 The error survived the publication process

10:24–11:20 / 56 seconds

We can observe the outcome. The author's text contains the substitution. The published review retains it. Editorial acceptance did not remove it. Translation and international distribution carried it to a wider readership. Journal indexing made the article discoverable, and the recommendations that I received show how its institutional standing shaped reception. We cannot assign undocumented actions to individual anonymous reviewers. We can say that the controls, collectively, failed to correct this claim. Responsibility follows the work each institution undertook. A publisher cannot make the journal's prestige visible while treating the quality of its product as somebody else's concern. A reader cannot turn a recommendation into evidence merely by repeating it. Authority increased around the statement while its evidential defect remained intact.

Slide 13 A pattern of failed verification

11:20–12:13 / 53 seconds

The significance extends beyond a single converted number. The supplied case study identifies unstable object definitions, narrow source selection and inadequate synthesis. These failures concern different operations that a review should perform. Together they support a criticism of the published work and the system that admitted it. One article cannot establish the frequency of comparable failures across an entire publisher or discipline. It can demonstrate a mechanism. The mechanism is that a manuscript accumulates institutional standing without the corresponding acts of verification becoming effective. Our analysis does not need speculation about private intentions. The public result is serious enough. Several inspectable defects remained compatible with successful publication. That compatibility is the object of institutional investigation.

Slide 14 Responsibility and correction

12:13–13:08 / 55 seconds

The immediate requirement is a documented response to the evidence. The author and journal should explain how the cited property portfolio became a global estimate of war-affected land. They should correct the claim and examine whether it affected the interpretation. The wider bibliographic and methodological criticisms also require substantive answers. The appropriate remedy depends on that examination. The publisher should make the response and any correction visible wherever the article circulates. Scopus inclusion cannot answer a question about source correspondence. A DOI cannot repair a category error. The field needs publications that identify the work behind their claims and accept criticism when that work fails. Prestige creates an obligation to answer. Silence leaves the published defect available for continued reuse.

Slide 15 Sources for independent examination

13:08–14:00 / 52 seconds

The source list gives a direct route to the article, the Military Times reference and the original infographic. It also identifies the journal's publishing information and the accompanying critical case study. The Military Times item dates to 15 August 2022. Reference fifty-nine in the article supplies that same date. The first image should be read as evidence of the source's actual subject. The second documents the institutions under whose names the journal circulates. These materials allow the argument to be checked independently. Our conclusions remain open to correction through evidence. The same standard must apply to the published article. A criticism that readers can reproduce should receive a response that readers can inspect.

Slide 16 Who answers for the published error

14:00–15:00 / 60 seconds

I return to the recommendations that initiated this investigation. The article reached me as an example of progress in an important field. Opening its source changed that assessment. The scientific problem is the conversion of inadequate work into an object that readers encounter as already checked. The reputational problem follows from that process. Pleiades Publishing and Springer Nature distribute this journal under their names. Those names cannot settle the scientific question. They identify institutions that should answer it. Our conclusion is direct: the publication process failed to protect the correspondence between a central claim and its evidence. The paper's appearance of completion concealed unfinished scientific work. Research on the consequences of war deserves better, and the organizations that distribute it remain responsible for the defects they allow to circulate.

References and illustration credits

Gordienko, O. A. (2025). Impact of War on Soils (a Review). Eurasian Soil Science 58, article 127. DOI: 10.1134/S1064229325601209.

Sicard, S. (15 August 2022). How much land does the military really own? Military Times. Reference 59 in Gordienko.

Visual Capitalist (27 July 2022). How Much Land does the U.S. Military Control in Each State? Visual Capitalist. Infographic supplied for this presentation.

Balyuk et al. (2017), reference 2. Drozd (2023), reference 11. Bibliographic entries in Gordienko and the accompanying critical audit.

Eurasian Soil Science. Springer Nature Link. Journal and publishing information. https://link.springer.com/journal/11475

Laboratory of Military Ecotones. War Affected Soils and the Imitation of Knowledge. Accompanying critical case-study manuscript.

Primary article and bibliography: https://doi.org/10.1134/S1064229325601209

Reference 59: https://www.militarytimes.com/off-duty/military-culture/2022/08/15/how-much-land-does-the-military-really-own/

Infographic: https://www.visualcapitalist.com/how-much-land-does-the-u-s-military-control-in-each-state/

Journal: https://link.springer.com/journal/11475

Publishing model: https://link.springer.com/journal/11475/how-to-publish-with-us

Critical audit: supplied War Affected Soils and the Imitation of Knowledge, Laboratory of Military Ecotones.

Slide 5 reproduces the marked article page retained from the original presentation. Slide 6 reproduces the supplied Visual Capitalist infographic. Slide 11 reproduces the supplied screenshot of the journal on Springer Nature Link.

Scope of the evidence

The opening describes Dmitry Nikolaenko’s supplied account of receiving recommendations and making a public statement. Soil-taxon and bibliographic counts refer to the accompanying critical audit. The numerical reconstruction is an inference from the published values and their match to the cited source. The criticism of institutional verification concerns the public outcome. The evidence does not establish the private actions of individual reviewers or payment for acceptance. The presentation does not infer the frequency of comparable failures from one case.