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“No Hiroshima in Africa”: The Algerian War and the Question of French Nuclear Tests in the Sahara

Roxanne Panchasi

A test in peacetime on a restricted desert proving ground bears no resemblance to a military bombardment.

—Jules Moch, Delegate for France to the United Nations, 1959

[T]he question of nuclear tests is nothing other than a project of recolonization . . .

—Ahmed Sékou Touré, President of Guinea and Delegate to the United Nations, 1959

On February 14, 2014, the popular French daily *Le Parisien* published “Le document choc sur la bombe A en Algérie,” (“The shocking document regarding the A-bomb in Algeria”), an article by Sébastien Ramnoux that revisited *Gerboise Bleue*, the first French atomic test conducted over five decades earlier.¹ Accompanying the article was a reproduction of a French military map from the period. The image depicted the region surrounding the test center at Reggane, in the Sahara, over 1300 kilometers southwest of Algiers, in the days that followed an initial explosion on February 13, 1960. The illustration also showed the spread of the test’s effects outward from ground zero to other parts of Africa and into southern Europe, with radiation levels higher, and covering a swath of territory much larger, than French officials had admitted to publicly before 2014.

Le Parisien’s exclusive relied on documents the French military had declassified only recently in response to demands by veterans seeking compensation for years of exposure to fallout and radiation during the program of testing that began with *Gerboise Bleue*. Over the course of three and a half decades, the military conducted more than 200 nuclear weapons tests, first in the Sahara from 1960 to 1966, and then in French Polynesia from 1966 to 1996.² To this day, the French state has yet to acknowledge and compensate for the short and long-term health and environmental impact of

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this experimentation program in a manner fully satisfactory to veteran and civilian victims and their advocates.³

Respecting the damage and suffering French nuclear testing inflicted in North Africa and the Pacific, and the continuing need for meaningful changes to existing forms of recognition and restitution, I want to pursue here a historical line of inquiry supportive of an accounting for past injustices. Readers seeking the truth of what transpired during the tests themselves, what was or was not known about their potential effects at the time or since, or any resolution of the complex issue of appropriate or sufficient reparations, will not, however, find definitive answers to these pressing questions. Rather, my focus is on the discursive politics of the Saharan tests, from the international debate that preceded their inauguration, to their subsequent historical positioning in relationship to the contested events, meanings, and memory of French imperialism and decolonization in Algeria. While this investigation may not offer evidence in favor of a specific legal outcome for victims, an analysis of the representation of testing during and after this period exposes structures of repression and elision that have compounded the physical and psychological harm caused by the explosions themselves.

From a historical perspective, the title of Ramnoux's *Le Parisien* exposé was striking. Trading on the longer *durée* of nuclear weapons development and testing as both covert activity and public spectacle, "Le document choc" uncovered a shameful secret at a moment of heightened global concern about the dangers of the nuclear. While France's particular reliance on nuclear energy has long made that context distinct in terms of debates about nuclear security, the article appeared at a moment when the incident at the Fukushima Daichi Nuclear Power Plant in Japan still loomed large.⁴ Before Fukushima, there was, of course, Chernobyl in 1986, another moment of crisis that inevitably lurks in the background of any revelations regarding the risks of nuclear technology, and the state and military deceptions that have so often accompanied the nuclear project.⁵ Beyond this field of contemporary anxiety, the "in Algeria" made *Le Parisien's* headline even more meaningful, particularly given its focus on a hitherto undisclosed archival document. What Ramnoux's piece did not mention explicitly is that this first atomic test had taken place in a contested region (the Sahara), one that the French considered distinct from an "Algeria" that was, from the French perspective, legally and administratively part of "France" at the time. France also detonated *Gerboise Bleue* during a brutal conflict that ended with the emergence

of an independent Algeria (including the Algerian Sahara) two years later, in 1962.⁶

Recent decades have included the revelation of archival evidence of other previously obscured French state and military acts during the period now referred to most commonly as the “Algerian War”.⁷ By 2014, the readers of *Le Parisien* had learned about numerous secrets, lies, and withheld documents dealing with the conflict.⁸ As Todd Shepard and others have pointed out, struggles over the archive—including ongoing speculation and disputes regarding (access to) its “truths,” instances of theft or destruction, and the rightful ownership of imperialism’s documentary traces—have held a privileged place in the fraught relationship between France and Algeria since 1962.⁹ The disclosure of new evidence regarding France’s first nuclear tests in the Sahara in the war’s final years cannot, therefore, be understood properly without reference to what sociologist Jan Jansen has referred to as a “politics of concealment” surrounding France’s imperial past in the region, and the Algerian War in particular.¹⁰

The designation of the years from 1954 to 1962 in France and Algeria as a “war” has a history, one with profound implications for both countries up to the present. In his 2008 essay, “What’s in a War?” Etienne Balibar examines critically the political stakes of the “category of war,” drawing attention to “the spectacular semantic case of [. . .] *La guerre d’Algérie*.” As Balibar points out, at the time and for decades after, the French state used “a code name: ‘les évènements,’ ‘the events.’”¹¹ According to Raphaëlle Branche, “[f]rom the beginning, French authorities had refused to characterize the operations they undertook in Algeria as a ‘war.’” Years of violence, a cease-fire, and a settlement (the Evian Accords of 1962), followed by the French and international recognition of an Algerian state, all signaled that a “war of independence” had indeed transpired. It was not until 1999, however, that the French government finally adopted the “Algerian War” in place of the rather more evasive “operations for the maintenance of order in North Africa.”¹²

The significance of this shift in naming from *les évènements* to *La guerre d’Algérie* cannot be overestimated. But what, as Balibar asks, defines a war? And what of the events that are said to constitute a conflict such as the Algerian War? What have been the criteria of inclusion and exclusion for a struggle with temporal and spatial boundaries that are not easily defined? We know that this war (like many others) had longer-term origins and legacies, as well as more than one terrain of battle—in this case, military, civilian,

and diplomatic sites in Africa, metropolitan France, Europe, and across the wider geopolitical field of post-1945 international relations. What types of events were the first French nuclear tests that took place during the last two years of the war? When and why did they figure (or not) in discussions of the conflict at the time? When and why have they figured (or not) in the historical scholarship since? Was French nuclear testing in the Sahara *a part of or apart from* the war itself? How can we understand those events as historical, military, and political acts with effects that continue to distress Algerian and French bodies, landscapes, and memories?

In what follows, I investigate the historical relationship between the French bomb and the Algerian War. Examining the scholarship on the French nuclear and imperial projects, I trace the contours of a historiographic tendency to segregate the two, despite their imbrication in time and space during the late 1950s and early 1960s. I then read closely the transcripts from the 1959 United Nations General Assembly (UN) First Committee meetings dealing with the “Question of French nuclear tests in the Sahara.” Analyzing the rhetorical and political linkages between this set of exchanges about nuclear testing and the “Question of Algeria” that was also the subject of controversy at the UN during this period highlights a deep divide within the organization’s membership. While the French state represented its nuclear weapons program as a harmless project of experimentation with peaceful intentions, a number of UN member states took an anti-imperialist stance, insisting that testing would continue a long history of European exploitation and destruction throughout the African continent and the global South. As they debated questions of sovereignty, territory, and the very definitions of war and peace, the international delegates who opposed testing connected France’s entry into the “atomic club” (via the Sahara) with the Algerian national struggle. Resisting the compartmentalization of these urgent concerns, they championed Algerian independence as they interrogated the forms and futures of French imperialism. Finally, I argue that the political stakes, conflicts, and contradictions evident in these debates continue to this day to haunt the French and Algerian history and memory of a *nuclear-imperial* past.

Historiographies Nuclear & Imperial

In the *Le Parisien* article cited above, the revelation of a nuclear truth about Algeria in 1960 without reference to the war going on at the time echoes

a long-standing historical habit of situating France's first atomic tests in the Sahara outside the war itself. Histories of the conflict that are ambivalent, and sometimes altogether silent, about the significance of the timing and location of these tests have participated in this dissociated recounting. Indeed, a persistent disconnect between the contested space(s), acts, and victims of France's nuclear weapons tests from the contested space(s), acts, and victims of the Algerian War reproduces the historical disavowal of the belligerence and violence of both the bomb, and what the French state referred to obliquely for decades as its "operations for the maintenance of order in North Africa."

Storytellings have political meanings and import. As Hayden White has suggested, "every fully realized story, however we define that elusive entity, is a kind of allegory," and any historical account "points to a moral, or endows events, whether real or imaginary, with a significance that they do not possess as a mere sequence." According to White, the allegorical nature of story makes it "possible to imagine that every historical narrative has as its latent or manifest purpose the desire to moralize the events of which it treats."¹³ These insights are revealing with respect to histories of the French bomb and the Algerian War. From the 1950s to the present, political, military, journalistic, and scholarly accounts have tended to narrate these phenomena in parallel, with limited interaction between their storylines. This separation shaped the contemporary field of debate over France's program of nuclear experimentation in the Sahara on the eve of *Gerboise Bleue*. It has also played a role in subsequent historical and political framings of the bomb and the war that continue to resonate in the present.

French historians have emphasized a disjuncture, supported by the rhetoric of the period, between the "radiance" of France as a modern nation seeking grandeur through nuclear and other technologies and the waning "radiance" of French imperialism after 1945.¹⁴ In her foundational work on the nuclear project and national identity, Gabrielle Hecht identifies decolonization as an impetus to the French investment in nuclear technology after the Second World War.¹⁵ The French government anticipated military applications from the 1945 creation of the *Commissariat à l'énergie atomique* (Atomic Energy Commission, or CEA). Still, the realization of a French bomb took several more years and was bound up in various ways with shifts on the imperial front. France's defeat in Indochina in 1954, the year of the emergence of Algeria's *Front de libération nationale* (National Liberation Front, or

FLN), marked a critical juncture in some ways. But historian Maurice Vaisse has pointed out that for much of the French Fourth Republic (1944–1958), the “maintenance of Algeria and the bomb” seemed like “contradictory” desires.¹⁶ Colonial wars were expensive and the French military had relied traditionally on soldiering forces and conventional weapons. Opponents of the bomb regarded nuclear weapons as too costly and strategically irrelevant in the face of colonial resistance.¹⁷ “How is the atom bomb going to help us pacify Algeria?” asked General Edmond Jouhaud in 1958. One of four generals who later staged a putsch in Algiers in 1961, Jouhaud was part of a broader campaign to resist France’s withdrawal from the region.¹⁸

Hecht has pointed out that “the mounting colonial crisis in Algeria,” combined with a state and broader societal ambition “to restore France to its former glory” at the time of Charles de Gaulle’s return to power in 1958, moved the nuclear weapons program forward with increased intensity.¹⁹ She has also noted the spectacle of France’s first atomic test in the Sahara and the “[e]motional renderings in the metropolitan press [that] extolled the renewal of French ‘radiance.’”²⁰ The detailed politics of France’s military (rather than its civilian) nuclear program during the period of the wars of decolonization—including cross-contamination between these terrains of debate and conflict—have not, however, been the subject of sustained analysis in her work. *The Radiance of France*, published in 1998, is a history of “the social, political, and cultural life of [gas-graphite] reactors as artifacts,” a history in which “bombs, experimental reactors, fuel processing plants, waste disposal, and research programs remain peripheral.”²¹ Hecht’s subsequent work has emphasized a global *nuclearity* that does not focus exclusively on weapons-possessing states such as France. While her analysis of the technopolitics of the nuclear is vital to understanding the context in which the French bomb and the Algerian War unfolded, the question of their deeper connections and meanings to one another remains unexplored.

Beyond narratives focused on the road to France’s nuclear weapons capability from 1945 to 1960, the timing of France’s wars has also figured in the scholarship on anti-nuclear protest during the late 1950s and early 1960s. Research on the lack of a broad-based French movement opposing nuclear weapons during this period, and the Saharan tests in particular, identifies two interrelated obstacles: a French nationalism that hindered transnational cooperation among peace activists, and a French political field more focused on the Algerian War. But the divide in political attention signaled more than

an aversion to cross-border cooperation or simple distraction. Leaders of the anti-nuclear movement in France expressed anxiety that international collaboration, or forms of direct action, over testing in North Africa might be confused with a lack of patriotism at a time of crisis. They worried that this might alienate the French population from, rather than rallying it to, their cause. Opposing the Saharan tests was also a concern for those peace activists in France and elsewhere who worried that any involvement in the region at that time might be read as support for the FLN, or for the use of violence in struggles for national independence more broadly.²² At a moment when the definitions of France, Algeria, sovereignty, and war were being hotly contested, a coalition between anti-nuclear/anti-war and anti-colonial activists proved extremely difficult in the French national-imperial context.

If the beginnings and endings of wars figure as milestones in histories of the French bomb from 1945, the status of France's first nuclear tests within the timeline of the Algerian War itself has been unsteady. Falling between the war's traditional bookends, 1954 and 1962, the first four atmospheric tests that France conducted in the Sahara would seem to qualify as wartime events in a basic sense. Yet scholarly examinations of the conflict have approached the inclusion and meanings of these events unevenly. While Alistair Horne's epic *A Savage War of Peace: Algeria 1954–1962* mentions *Gerboise Bleue* in 1960 and *Gerboise Verte* in 1961, the extensive, twenty-seven-page chronology in Benjamin Stora's *Algeria: 1830–2000* does not mention a single French nuclear test between 1960 and 1966.²³ Other timelines and broad studies of the war refer variously to specific, but not all, tests, in some cases noting only the dates and names of detonations, in others exploring their significance to the course of the war itself.²⁴

The strategic importance accorded the French bomb differs in accounts of the Algerian War depending on authors' implicit definitions of "wartime," "acts of war," and sites of conflict, or "warspace." In his opening remarks to *A Diplomatic Revolution: Algeria's Fight for Independence and the Origins of the Post-Cold War Era*, historian Matthew Connelly describes the scene of the 1961 French-Algerian negotiations at Evian that eventually ended the conflict. Underlining the relative positions of the *Gouvernement provisoire de la République algérienne* (Provisional Government of the Algerian Republic, or GPRA) and the French envoys, Connelly highlights the contrast between an "occupying army of half a million men that was then testing its first nuclear weapons in the Sahara" and Algerian forces that "had dwindled to less than

15,000.”²⁵ While Connelly does not discuss the Reggane tests in further detail as acts of the war itself, he nevertheless invokes these weapons experiments on what would eventually become Algerian territory as a way of signaling the enormous difference in military strength between the war’s opposing sides. Reggane participated in the war’s theater even if it was not, strictly speaking, a *theater of war*. There were other moments when the proximity of the French bomb in time and space seemed to have strategic significance in the conflict’s unfolding. Horne notes that the French detonated *Gerboise Bleue* shortly after “Barricades Week” in January 1960, an insurrection in Algiers orchestrated by self-proclaimed defenders of a French-Algeria. Horne cites Jacques Soustelle, a former Governor General of Algeria and supporter of De Gaulle’s government turned member of the *Organisation de l’armée secrète* (Secret Army Organization, or OAS): “‘Since we’ve got an atomic bomb, why not use it? Let’s drop it on Algiers instead of at Reggane!’”²⁶

Studies of the war itself tend not to make specific mention of the two tests—*Gerboise Blanche* in April 1960 and *Gerboise Rouge* in December—that followed. While these detonations displayed the nation’s nuclear capacity at a time of ongoing political and military conflict, they do not generally receive serious attention in accounts of the Algerian War. *Gerboise Verte*, the fourth French nuclear test conducted in April 1961 holds a different status in some histories. Historian Bruno Tertrais, for example, has described the test as “the perfect symbol of De Gaulle’s consolidation of power.”²⁷ Proponents of a French-Algeria also made connections. OAS propaganda warned that the loss of this vital territory, where nuclear tests might be conducted far from the metropolitan French population, was one of many arguments against any withdrawal from Algeria. Maurice Challe, another of the four French generals behind the attempted military coup in Algeria in 1961, went further still, suggesting that the head of the French Special Weapons Command “[r]efrain from detonating [his] little bomb.” “[K]eep it,” remarked Challe. “It will always be useful to us.”²⁸

Long before the countdown to *Gerboise Bleue*, the choice of Reggane, in the Sahara, for France’s nuclear test site depended upon the vicissitudes of empire. Following more than a century of French military conquest and colonialism in the region, the decision to locate a facility in North Africa had much to do with its safe, yet manageable, distance from the *métropole* and the presence there of a more developed infrastructure relative to the Pacific. As the situation in Algeria became more volatile into the late 1950s, however, the

Sahara seemed an increasingly uncertain location for this vital (and costly) strategic center of military defense experimentation. As historian Jean-Marc Regnault has pointed out, French officials at the time expressed their concern that “the internationalization of the Algerian conflict [and] instability [. . .] would not permit tests in the Sahara to be carried out conveniently”.²⁹ In 1966, the shift from Algeria to French Polynesia reflected both the imperial break in North Africa, and imperial continuity in the Pacific.

While empire’s shifting terrain certainly affected decisions regarding the location of France’s nuclear test sites before, during, and after the Algerian War, whether or not those sites should be considered part of the warspace of the conflict itself seems less clear. Historian Jacques Frémeaux has asserted that “[t]he Sahara was not an important battlefield during the Algerian War.” A vast territory whose “inhabited zones were widely dispersed,” the area provided little cover and “did not favor guerilla warfare.” The French had long regarded the Sahara as a territory distinct from Algeria and this separation persisted right up until the very end of the war. And, of course, the Sahara was not wholly contained even by what would become an independent Algeria after 1962. Nevertheless, Frémeaux insists that the “region cannot be dissociated from the study of the conflict as a whole.”³⁰ He does not, however, explore the relationship between the nuclear testing that took place in the Sahara before and after Algeria’s independence, and the events and meanings of the war itself.

From the conquests of the nineteenth century on, the French viewed the Sahara as a space of great strategic interest. By the 1950s, the discovery of oil and the establishment of a nuclear weapons test site rendered the area even more valuable. While Algerian nationalists argued that “the Sahara was an integral and inalienable part of their homeland,” France maintained the position that French effort and skill had led to the discovery of the area’s resources.³¹ The problem of the Sahara proved a significant obstacle in the settlement of the conflict, and the compromise struck eventually was not without controversy. According to Philip Naylor, even into the 1961 negotiations of the Evian Accords, Louis Joxe, the French Minister for Algerian Affairs remained adamant “that [the Sahara] was not realistically or historically part of Algeria.”³² But just as arguments for an *Algérie française* gave way to the “invention of decolonization,” so too did France under De Gaulle eventually let go of the insistence on a separation of the desert from the rest of Algeria by the end of that year. The French cession of the Sahara, with the

caveat that France would have the right to continue testing in the region for a five-year period after 1962, was key to the war's resolution.³³

Histories that emphasize decolonization as a process rather than a clean break point out that the question of territorial and other forms of sovereignty continued to be concerns after Algeria's independence, and nuclear testing in the Sahara was, quite literally, part of the landscape of French military, political, economic, and cultural presence after 1962.³⁴ As early as November of that year, just a few months after France's formal recognition of an independent Algeria, the new state's first President, Ahmed Ben Bella made clear his opposition to any subsequent French test, despite the fact that the GPRA had agreed to just that possibility for several more years.³⁵ Stora notes the first post-independence French nuclear test of March 10, 1963 as one that "provok[ed] a vigorous protest in Algiers".³⁶ Indeed, the test even pushed Ben Bella to call for an amendment to the deal struck at Evian.³⁷

Imperialism and decolonization played important roles in the broader context of civilian and military nuclear planning, policies, and acts during the post-1945 period. The French bomb exploded on the scene during the moment, and in the contested space, of France's premiere conflict of decolonization. Yet, even in those analyses of the Algerian War focused on effective pressure from the international community—and from the UN in particular—in the "diplomatic revolution" that helped bring about Algeria's independence by 1962, there is little trace of the debates regarding the Saharan nuclear tests.³⁸

The question of French nuclear testing in the Sahara did become the focus of international concern in the late 1950s, however. In the year and a half before the detonation of *Gerboise Bleue*, statements of protest came in a variety of forms. The African and Asian coalition of nations that had come together at the 1955 Bandung Conference denounced the proposed French tests, as did a variety of international peace groups. These political communities supported the team of activists that carried out the "Sahara Protest" of 1959–60 just before the *Gerboise Bleue* test. Stopped by French military forces before they were able to complete their journey from Ghana to the test site at Reggane, the group included famed pacifists Michael Randle, A.J. Muste, and Bayard Rustin.³⁹

The diplomatic was also a key realm of debate, negotiation, and protest.⁴⁰ From February to July 1959, the Moroccan government sent five memoranda to the French government expressing opposition to the latter's plans to test. By August 13, the Moroccan delegation asked the General Assembly of the UN to consider the question of French nuclear tests in the Sahara "in view of

the anxiety of its population in the area”.⁴¹ The issue then became the focus of eleven meetings of the UN’s First Committee on Disarmament and International Security in early November 1959. Eventually more than twenty-two countries—including Afghanistan, Ethiopia, Ghana, India, Indonesia, Iraq, Jordan, Libya, Lebanon, Morocco, Tunisia, and Yemen—submitted a draft resolution “Request[ing that] France refrain from such tests.” After much discussion, the General Assembly passed a slightly amended version.⁴²

Pitting France against the same group of members that had pressed, since the mid-1950s, for the UN’s engagement with the conflict in Algeria, the debates over the “Question of French nuclear tests in the Sahara” were implicitly, and sometimes explicitly, arguments about the war itself. The internationalization of the Algerian nationalist struggle was helped along by the debate over French testing in the region and arguments regarding the dangers and aggression of a French bomb were nourished by the violence and perceived injustices of the conflict in Algeria. Still, even those historians who have emphasized the Algerian War’s international dimensions and impact have neglected these debates in which concerns over nuclear disarmament, the global balance of power, and the question of colonial and postcolonial sovereignties intersected as nowhere else.

For anti-imperialists, the first French nuclear test would, indeed, be an act of war, an unauthorized violation of Algerian (and African) sovereignty, continuing a long history of colonial injustice and perpetration. From this perspective, French nuclear imperialism was yet another incarnation of the European/Western/white exploitation of Africa, and there was, in principle, no distinction to be made between testing and other forms of domination and violence. The struggles for national liberation in North Africa and elsewhere were struggles against imperialism in all of its forms. This included the sovereignty of the territories and populations that would be affected by testing on what anti-imperial, anti-nuclear activists insisted was, not French, but Algerian and African soil. For the French state, the debates over tests in the Sahara challenged the nation’s declared peaceful intentions, as well as its sovereignty in defense of a territory it regarded as a part of France.

Sovereignty & Territory: “The Sahara Does Not Belong to France”

Opening the UN First Committee meeting on the “Question of French nuclear tests in the Sahara” on November 4, 1959, Morocco’s Ahmed Taibi

Benhima expressed his concern that, “France proposed to carry out its experiments in a contested zone, the region of Reggane.”⁴³ “In insisting upon exploding its atomic bomb in the Sahara, France is trespassing legal boundaries,” claimed Ahmad Ali Zabarah of Yemen at a subsequent meeting.⁴⁴ Ghana’s Alex Quaison-Sackey was resolute: “The Sahara does not belong to France.”⁴⁵ Throughout the series of debates that took place at the UN in November 1959, the issue of the Sahara as disputed territory played a central role. Was the Saharan test site and surrounding region French? If so, then perhaps the United Nations did not even have the authority to discuss the question, let alone pronounce judgment in the form of a resolution. If not, then any French nuclear test in the desert would be a *de facto* violation of foreign territory.

From the outset, the French delegate, Jules Moch, insisted that he could not “discuss France’s sovereignty over the Sahara in general, or over the site of experimentation in particular.” “I cannot allow it to be said [. . .] that the Sahara is a contested territory,” he objected. “[T]hese are two French departments.” From Moch’s perspective, testing in the Sahara was “a question that concern[ed] the French [. . .] [and] about which only they ha[d] the right, fundamental in any democracy, to give their opinion.”⁴⁶ This was not an “international” matter, and the UN was acting well beyond its purview in raising the question at all. France should have the right to determine its own defense policy without foreign interference. Moch also protested during these meetings that “the allegiance of the Sahara [wa]s not on the [committee’s] agenda.” In this assertion, the French spokesperson had the support of the meeting’s chairman (Franz Matsch of Austria) who reminded all delegates “that the issue of the Sahara [. . .] w[ould] be dealt with at a later stage.” Further refusing any discussion of “the Sahara [. . .] at the same time as the Algerian question,” Moch insisted “these [we]re two distinct issues.”⁴⁷ While the test center at Reggane was located in the Sahara, neither the status of the Sahara, nor the status of Algeria per se, were meant to be part of the discussion.

While French sovereignty took precedence for Moch, Algerian and African sovereignty were the priorities for those who opposed France’s planned tests. For these delegates, the Sahara and the “Question of Algeria” were far from distinct. While Moch insisted repeatedly on the segregation of these matters, others challenged their plurality to begin with. Quaison-Sackey of Ghana noted that, “in the case of the Sahara, the question [wa]s already the subject

of debate between the French armed forces and those of the Algerian provisional government [GPRA].” According to Farid Zeineddine of the United Arab Republic (UAR), “the allusion [. . .] to Algeria [wa]s perfectly pertinent.” “France’s efforts to increase its international political power by expanding its military force w[ould] have an effect on the situation in Algeria,” he pointed out, “even more so because there exist[ed] a real possibility of arriving at a solution through negotiation.”⁴⁸ Another delegate added that the proposed nuclear “test [. . .] w[ould] not contribute to the resolution of the Algerian question.” “Peace in Algeria,” he continued, “will only be obtained via negotiations between the two parties involved directly.”⁴⁹ The French bomb, its location and its military significance, was linked to and would have effects on the war itself.

The point of order had a political meaning that was wide and deep. In the years leading up to these debates about nuclear testing, French delegates like Moch had already refused the UN’s right to discuss the “Question of Algeria”. Multiple member nations began urging the international body to address the situation soon after the outbreak of hostilities in 1954. The French insisted, however, that Algeria was an administrative and legal part of France, and that any conflict there was a domestic rather than an international affair. Over the next several years, the “Question of Algeria” appeared on the General Assembly’s agenda on a number of occasions. From 1955 on, the UN deliberated resolutions encouraging peaceful negotiation between the French state and the FLN, and calling for an end to the conflict. In December 1960, one week before France conducted its third atmospheric test (*Gerboise Rouge*) in the Sahara, the member states of the UN passed resolution 1573. Recognizing Algeria’s right to independence, this resolution called for the implementation of an Algerian self-determination that President De Gaulle himself had indicated as a path forward as early as September 1959.⁵⁰

The 1959 UN debate over nuclear testing returned again and again to the issue of sovereignty, including the claims of, not just Algerians, but Africans in general, to territorial and other forms of independence that France had violated in the past, continued to violate in the present, and seemed likely to violate into the future. Contested boundaries between the questions under consideration at committee meetings echoed disputes over physical borders. Mongi Slim of Tunisia, for example, pointed to the longer history of the demarcations that France’s claims to sovereignty over the Sahara depended upon. According to Slim, these were “borders [. . .] fixed

for reasons of administrative convenience, during an era when France also exerted authority over the bordering countries, [. . .] borders not necessarily correspond[ent] with the true borders of these neighboring countries.”⁵¹ Furthermore, the test(s) would have effects on the territories beyond those claimed by France. Other, independent states would feel their impact and it was therefore the duty of the UN to intervene in some way. As Zabarah of Yemen noted: “The countries which would suffer the repercussions [. . .] include contested areas, sovereign independent states, and territories falling under the Trusteeship System for whose peace, security, and economic and social welfare the United Nations is responsible.”⁵²

The nature of nuclear fallout and radiation further complicated the definition of political and territorial boundaries. According to Omar Adeel of Soudan, the possibility of noxious clouds dissipated by winds was “a question of life and death” for “the countries bordering the Sahara.”⁵³ These were weapons of light, sound, heat, air, and gusts whose effects could not always be easily identified or contained in space or time. The elusive qualities of radiation would make it impossible for France to respect the borders of other states, even if it wished to do so. Beyond the contested sovereignty of Algeria, these factors implicated France in the violation of the established sovereignty of a number of already-independent African states. As the delegate for India pointed out: “Even if it is French territory, does France have a right to the air above, to the atmosphere, the stratosphere?”⁵⁴ The disorderly emissions of an atomic test made fixing national borders practically impossible at the same time that delineating boundaries in new ways, or clinging desperately to imperial definitions of territory, seemed most urgent to those on either side of the debate. While individual states might lay claim to their own technological achievements and arsenals, the effects of the bomb in space, time, and politics called the very notion of sovereignty into question in myriad ways.

War: A “peacetime test,” or a “bomb of aggression”?

Insisting that nuclear tests in the Sahara, the discussion of the Sahara’s future status (French or otherwise), and the “Question of Algeria,” were separate agenda items, Jules Moch made every effort to represent France’s nuclear test plans as scientific experiments “present[ing] no risk, either local or general.”⁵⁵ Claiming French sovereignty with regard to military defense and territory in this matter, Moch had for years been an avid proponent of

nuclear disarmament.⁵⁶ He seemed well-positioned, therefore, to respond to accusations that, by proceeding with its nuclear weapons program at this time, France would be moving against concurrent test-ban and disarmament negotiations between the world's existing nuclear weapons-possessing states: the U.S., the U.K., and the U.S.S.R.⁵⁷ For Moch, France's commitment to disarmament was entirely compatible with its decision to proceed with testing. As President de Gaulle had insisted, "In truth, France, in equipping herself with a nuclear weapon, w[ould] render a service to world equilibrium."⁵⁸ Adding its own nuclear arsenal to the balance of power, France would exercise its right to self-defense while addressing the disproportionate military might of the three states already in possession of nuclear weapons.

Apart from the global implications of a French bomb, Moch also sought to answer the charge that French nuclear testing in the Sahara posed a threat to the population in the vicinity of the experimentation site at Reggane. The proposed test(s) would, he claimed, be both peaceful in intent and harmless in effect. Indeed, it was his contention that French testing would be safer than those experiments the other three states had conducted previously.⁵⁹ The specificity of the Sahara played a role here as well. In an extended speech he delivered early on in the First Committee's series of meetings, Moch described the area surrounding the test site at Reggane as "practically uninhabited".⁶⁰ In his presentation, Moch included a series of illustrations intended to underline the limited population of the area in question, and especially to highlight the "negligible" threat posed by France's plans relative to those risks that had already been taken by other powers in other territories. This argument for the tests' safety depended, in large part, on the same colonial logic of *terra nullius* that had been central to large-scale land appropriation by European settlers in Algeria following the conquest of 1830. Applied to the Sahara as a site for nuclear testing, the *terra nullius* of the late-1950s reinscribed the desert as "a region that is absolutely empty, without humans and without vegetation."⁶¹ There could be no victims if there were no inhabitants.

Other UN delegates challenged this representation. The Moroccan representative claimed the test site was actually "one of the most fertile regions of the Sahara [. . .] a region inhabited by 200,000 people". "I do not want to allow Mr. Moch to depict the Sahara as a desert, as it appeared in past romances or as certain film producers would seek to describe it—as a tremendous desert lacking human life and lacking vegetation," insisted Benhima. "[T]he region in which France proposes to have the nuclear test carried out

is not as deserted as Mr. Moch chooses to contend,” he continued. “[I]n this same area [. . .] there are hundreds of villages which are in some instances only fifteen to twenty kilometers apart.”⁶² The Sahara was not empty and any representation of the test that neglected its moral and political meaning and effects was unacceptable to those for whom the territory *was* inhabited in complex ways, both by actual people and by the *idea* of a sovereign people/nation.⁶³

The French insistence on the representation of nuclear weapons testing as innocuous and free of risk was a response to accusations that France’s nuclear weapons ambitions contradicted claims regarding the nation’s pro-disarmament stance. It also had implications on another front where France’s interests in either peace or war carried deep significance: the “Question of Algeria”. Moch’s position went beyond the alleged “emptiness” of the region. He was also adamant about the benign nature of the proposed experiments themselves. Throughout the 1959 UN debates about the matter, Moch avoided the word “bomb.” He used words like explosion, test, and experiment, but did not refer to the weapons France intended to detonate as “bombs.” Moch’s avoidance of this keyword of war reflected the broader project to represent France as a champion of peace on the world stage. Expressing his dismay with those “speakers, carried away by their own eloquence, [who] confused the consequences of a bomb dropped in wartime with those in a peacetime test,” the French delegate deployed a technical and scientific vocabulary to downplay, even refuse, tests as military and political acts. This, at a time of violent conflict in the very region where France planned to conduct these experiments. “Yes, bombs dropped on a population center during an atomic war would destroy life over thousands of kilometers,” he explained. “But a test in peacetime on a restricted desert proving ground bears no resemblance to a military bombardment.”⁶⁴ Pushed to defend its intentions on the world stage, the French state represented its plans using the language of “devices” rather than “bombs.” This strategic use of terminology had deeper political meaning: France would be conducting scientific experiments in an uninhabited part of its *sovereign* territory, and there was no *war* going on in 1959.

The UN debate over the military application of nuclear technology was a site of the very technopolitics that Gabrielle Hecht’s work has illuminated. Dismissing claims regarding possible harm or victims, and offering his scientific “truths” as correctives, Moch expressed a degree of exasperation regarding the “psychological and political” nature of the opposition he faced.⁶⁵

Other delegates regarded the psychological dimension of the issue as further justification for their objections. Zeineddine, the delegate from the United Arab Republic declared, “[W]hat is important is not the physical results of the bomb. More important are other consequences.” Given France’s history in the region, “the relationship between this test and colonialism” could not be “overlooked.” “In fact, this test and what remains of the colonial influence in Africa c[ould not] be dissociated from one another,” he claimed. Noting Moch’s/France’s “paternal tone,” Zeineddine added, “The very fact that a bomb will be exploded in the Sahara shows that colonialism is still powerful.”⁶⁶ As Zayd Rifa’I of Jordan pointed out, “What France ha[d] already done to date in Africa and in the Arab world does not convince the populations of these regions that the French are taking into account their safety and security.”⁶⁷ “[T]he atomic bomb [was] a white man’s weapon.”⁶⁸

Sékou Touré of Guinea warned that France was running the risk of “alienating itself definitively from the friendship of [African] peoples by persisting in outdated political ideas, illustrated well enough by the drama in Algeria.” Touré referred to the “backwardness of the French project,” and the reasonable distrust that “African populations” had learned to feel in the face of European assurances about their well-being and safety. “Colonial people are asking themselves whether this is a bomb of defense or a bomb of aggression,” he explained. “They know that colonialists often try to pass their aggressive endeavors off as defensive acts.” Referring to “the 100,000 deaths of the repression of Madagascar [and] the massacres of the Mau-Mau,” Touré linked testing to other notorious instances of warfare in which imperial powers had shown blatant disregard for the lives of colonial peoples. Testing would be no different than these violent acts of war.⁶⁹

Indeed, for these critical voices, France seemed to be announcing a new chapter in a long history of imperial exploitation, death, and destruction. As Sir Claude Corea of Ceylon (now Sri Lanka) predicted, “What the people of Africa will remember is that a European power chose an African territory to explode a bomb that risked dangerous consequences for the population of that territory. And there will be no putting to the side this psychological aspect of the question.”⁷⁰ The inevitable (and rightful) independence of Algeria, and the inclusion of the Sahara within that independent African state, was a basic assumption of the countries in favor of the UN resolution up for debate in 1959. Guinea’s Sékou Touré posed the question in no uncertain terms: “Are you for, yes or no, the liberation of Africa?” He went further,

asking Moch to “declare solemnly before the Assembly that his country is ready to grant independence to all colonized people who make the demand,” adding (pointedly) that this, “would allow us to conclude that it is only by error that Algeria has not been offered independence.”⁷¹

A number of delegates also expressed their skepticism regarding France’s intentions. According to Sosa Rodriguez of Venezuela, “the possession of the atomic bomb [seemed] more a business of prestige than defense.” This was a project caught up in political and military spectacle. “France does not have the right,” asserted Benhima of Morocco, “to use Africa to increase its national prestige or to help it gain equal footing with the other nuclear powers. That page of the history of Africa has been turned.”⁷² Sékou Touré made the link to imperial exploitation and injustice exceedingly clear when he declared that “there [wa]s no more prestige in having one’s own bomb than in possessing slaves.”⁷³ Framing his objections in terms of France’s historical greatness, its republicanism, and its professed commitment to civilization, Henry Ford Cooper, the delegate for Liberia, declared: “The world admires France not for its military exploits but for its culture, its art, its science and its love of liberty.” He conceded that “[t]he African people owe[d] a great deal to France, because, in spite of the trials they withstood under the colonial regime, France greatly improved their conditions of life.” He also reminded those assembled that, “[Africans had come] to France’s aid in its struggles against military aggression.” “It does not,” Cooper concluded, “seem like too much to ask France not to inflict unknown terrors on these peoples.”⁷⁴ The UAR’s Zeineddine underlined these remarks with just the right balance of skepticism and flattery, challenging Moch’s claims that France had a right to “equality” vis-à-vis those states already in possession of nuclear weapons. “This preaching of equality and of non-discrimination is an ominous approach in dealing with weapons of mass destruction,” he pointed out. Making strategic reference to France’s republican rhetoric, Zeineddine continued: “Equality, that of the French Revolution is the one that should be sought and not equality in such a field.” Speaking for the anti-testing coalition, Zeineddine hoped “to see the French Marianne cloaked with a cape of liberty and equality of that kind, and not to see Marianne at any time caped with the atomic mushroom.”⁷⁵

Hiroshima in Africa

“Everything is Ready for the French Atomic Explosion” declared a headline in *Le Figaro* reporting on the upcoming weekend of February 13–14, 1960.

In the weeks and days before *Gerboise Bleue*, the imminent detonation of the French bomb received significant attention in the pages of France's oldest daily newspaper, and throughout the French media.⁷⁶ *Le Figaro*, *Le Monde*, and other publications had also followed closely the 1959 UN debates over testing in the Sahara.⁷⁷ *Le Figaro's* coverage in anticipation of the first test offered the French public information about the site at Reggane, and the technical aspects of the historic explosion. It also included a disturbing image positioned just beneath the article on the preparations for *Gerboise Bleue*: a drawing of a young boy and girl, with a mushroom cloud swirling around their huddled bodies. The line "your children are in peril," also enveloped by a cloud, appears in Arabic below the two children.⁷⁸ The caption under the drawing reads: "Pas d'Hiroshima en Afrique" ("No Hiroshima in Africa"). While the image was not signed, it bears a strong resemblance to the work of Burhan Karkutli, a Syrian artist who lived in Morocco for many years before moving to Germany.⁷⁹ According to *Le Figaro*, which reproduced the illustration under the heading "Propaganda in Morocco," the image had its origins in a Moroccan Workers' Union (UMT) publication. Noting that similar images could be found "on the walls of Casablanca and Rabat," the conservative French newspaper demanded, "How can one dare compare to Hiroshima a nuclear test conducted in the middle of the desert in which all scientific precautions have been taken to avoid danger?"

I linger on this image, its dislocation from its original context, and its reproduction in *Le Figaro* because the reframing so clearly expressed the struggle over definitions of sovereignty, territory, weapons, and acts of war in the debates I have examined above. Equating the French nuclear test with dropping a bomb on innocent civilians, the illustration visualized the anti-imperialist position of those who voiced their opposition to French nuclear testing at the UN in 1959. From the perspective of those seeking a UN resolution denouncing the proposed experiments in the Sahara, the consequences of France's actions would be far-reaching in time as well as space. As the delegate for Saudi Arabia had argued, "nuclear tests constituted an undeclared war launched against, not only the current generation, but also against future generations."⁸⁰ The scoffing reproduction of the image in the pages of *Le Figaro* underlined the French state and military insistence on a peaceful, safe test without victims.

For opponents of the tests, the planned size of *Gerboise Bleue* also played a role in the comparison with the atomic bombings of the Second World War. At 70 kilotons, this first French bomb would be more than three times

more powerful than the bombs that had brought death and devastation to Hiroshima and Nagasaki. “[T]he French atomic bomb [. . .],” noted the UN delegate for Libya, “is the same type as those atomic bombs dropped on Hiroshima and Nagasaki, and [. . .] it is even more powerful.”⁸¹ Krishna Menon of India underlined this point: “The Hiroshima bomb was infinitely less powerful and yet it unleashed a chain of events.”⁸² Benhima of Morocco reminded his colleagues that Hiroshima had had effects long after the initial explosion.⁸³ While Jules Moch insisted on a victimless experiment, “The same thing might have been said about Japan in 1945.”⁸⁴

Invoking Hiroshima accomplished a number of things rhetorically and politically. It rejected claims that France’s scientific testing was compatible with its professed support of global nuclear disarmament. It also rejected the notion that these experiments would harm no one. Instead, delegates who reached for the analogy likened French testing to (further) acts of imperialist aggression against the Algerian and African people, acts continuous with the military bombardments of the past and present, the violence and destruction of conquest, and the subsequent suppression of forms of colonial resistance. Finally, “Hiroshima” had the dramatic effect of referencing the most destructive historical acts of nuclear aggression during wartime while pointing to a possible future nuclear Armageddon. While the French state insisted on the separation of agenda items and issues, anti-imperial delegates understood the Sahara and Algeria as a contested territorial whole, claiming a profound relationship between the weapons and victims of a “war of independence” and the weapons and possible victims of France’s latest (nuclear) adventure in North Africa. The phrase “Hiroshima in Africa” thus underlined the injustices of France’s untenable position in Algeria and calls from various quarters (including the UN) for a just resolution to the struggle there. The French detonation of an atomic bomb in the Sahara was not a benign test, nor would be it be an achievement to celebrate; it would be Hiroshima, an act of war perpetrated in an Africa with a long history of colonial invasion, occupation, and oppression. The incommensurability of these polarized perspectives was expressed in no uncertain terms by the immediate responses to the detonation of *Gerboise Bleue* from the two world leaders who had come to epitomize the debate over French nuclear testing within and beyond the UN:

*Hurray for France! From this morning, she is stronger and prouder.*⁸⁵
President Charles de Gaulle of France

No Hiroshima in Africa

My government has learnt with horror that the Government of France, in total disregard of repeated protests by Ghana and other African States, and of the Resolution of the General Assembly of the United Nations, has defied the conscience of mankind and has this morning exploded a nuclear device on African soil.⁸⁶

President Kwame Nkrumah of Ghana

Memory/Wars

In February 2010, the state-owned Algérie Poste issued a new stamp to mark the fiftieth anniversary of the first French nuclear test conducted in the Sahara in 1960. Printed by the Banque Centrale d'Algérie (BCA), the stamp (No. 1558), along with a series of envelopes, was designed by Sid Ahmed Bentounes. The stamp featured an outline of a map of Algeria marked by two nuclear hazard symbols, at Reggane and In Ecker, the sites of France's atmospheric and underground tests between 1960 and 1966. The map was overlaid with two other images: a mushroom cloud and a photograph of an older Algerian man. The caption read: "Hommage aux victimes des essais nucléaires français en Algérie" ("In honor of victims of French nuclear tests in Algeria"). It was the first time the Algerian postal service had commemorated the history of French nuclear testing in the Sahara.

The stamp (no longer in circulation), received criticism from the philatelic community. One Algerian collector's expert website rejected it as inaccurate, inappropriate, even "plagiarized."⁸⁷ Another observer, Mohamed Achour Ali Ahmed of the Algerian newspaper *El Watan*, called it "erroneous" and troubling. According to Ahmed the collage of text and images had failed in its attempt to render homage to victims. While the map on the stamp identified correctly the sites of French nuclear testing in the Sahara, the mushroom cloud was one from another time and place entirely. Rather than using a photograph of the cloud *Gerboise Bleue* generated on February 13, 1960, Bentounes had used an image of one generated by a 1953 US nuclear test conducted in Nevada. In another error along these lines, a commemorative envelope released by Algérie Poste on this same occasion used yet another mushroom cloud, one from a French test conducted years after 1960, in the Pacific.⁸⁸

Ahmed's critique drew attention to a final problem with the design, the image of an Algerian man on the stamp's left side that the designer had apparently borrowed from the cover of a 1973 issue of *Historia Magazine* devoted to the Algerian War.⁸⁹ For Ahmed, the anachronism was unacceptable. How could one pay respect to victims of nuclear testing using an image from the

war of independence? The question is an intriguing one. Ahmed condemned the use of an image from the war in a stamp intended to mark the anniversary of *Gerboise Bleue*. But why the charge of anachronism? The first French nuclear tests in the Sahara took place during the years of that conflict, and on territory Algerians sought to, and did, reclaim from France as a part of that struggle. The Evian Accords that brought the war to an end in 1962 included the concession—by the future leaders of an independent Algeria—of an additional five years of French nuclear tests in what became Algerian territory. *Gerboise Bleue* had happened during wartime, in what multiple contemporary observers would have characterized as a warspace at stake in the conflict, if not a field of battle in the strictest sense. The French bomb was also, from the perspective of many anti-imperialist voices at the time, a destructive, powerful act of war that would inflict clear damage, harming innumerable (civilian) victims. Why, then, insist so vehemently on the incommensurability of the commemoration of this French bomb with the Algerian War?

In the wake of both the war and French nuclear testing in Algeria, there have been other points of contact between their legacies and memories. From disputes over archives, to demands for recognition and apology, to the issue of reparations, a shared discursive field has emerged over the past several decades, a field of “imperial debris” that has included lives lost and bodies injured, environments contaminated and degraded, truths suppressed and revealed, memories and mythologies forged and challenged.⁹⁰ While the specificity of victims of one type of imperial exploitation and/or violence may be necessary from a juridical perspective in order to settle legal claims by individuals, groups, or governments, the histories of the French bomb and the Algerian War were and remain imbricated.⁹¹ Refused by France during the war itself, and neglected in the subsequent scholarship since, the historical and contemporary memorial/amnesiac connections between their timelines, spaces, and victims invite, even demand, our attention in the present and the future. Indeed, the separation of these events and narratives has political consequences and effects. It renders porous and unjust boundaries seemingly hermetic and logical. It empties deserts of lives damaged. It turns bombs into harmless “devices,” abetting the representation of a brutal military conflict as a set of “operations.” The French bomb was always a weapon in and of empire. The history of the physical and psychic damage its initial testing in the Sahara inflicted on Algeria and Algerians was, and remains, an imperial war story.

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Notes

1. Sébastien Ramnoux, "Le document choc sur la bombe A en Algérie," *Le Parisien*, February 14, 2014, <http://www.leparisien.fr/faits-divers/le-document-choc-sur-la-bombe-a-en-algerie-14-02-2014-3590523.php>. The tricolor names assigned to the first French tests expressed profound national pride: *Gerboise Bleue* (Blue Jerboa, a desert rat), an atomic bomb of 70 kilotons detonated February 13, 1960, *Gerboise Blanche* (White Jerboa) detonated April 1, 1960, and *Gerboise Rouge* (Red Jerboa) detonated December 27, 1960.

2. I use the French name to refer to this collectivity of islands whose decolonization is the subject of a recurring proposed resolution at the UN, <http://www.undocs.org/A/RES/70/100>. On the history of French nuclear testing, see Maurice Vaisse, ed., *La France et l'atome: Etudes d'histoire nucléaire* (1994); Yves le Baut, ed., *Les essais nucléaires Français* (1996); and Dominique Mongin, *La bombe atomique Française 1945–1958* (1997). For an overview of nuclear protest from the early 1970s through the 1990s, see Lawrence Wittner, "Nuclear Disarmament Activism in Asia and the Pacific, 1971–1996," *The Asia-Pacific Journal: Japan Focus* vol. 7, issue 25, no. 5 (June 15, 2009): 1–11.

3. The 2010 *Loi Morin* compensating victims (under review currently) has resolved few cases. When the law came into effect, French President François Hollande remained silent about testing in Algeria. For the veterans' perspective, see the Association des Vétérans d'Essais Nucléaires website: <http://www.aven.org/>. See also the material presented in Albert Drandov and Franckie Alarcon's graphic history, *Au nom de la bombe. Histoires secrètes des essais atomiques français* (2009), and the films *L'Algérie De Gaulle et la bombe*, dir. Larbi Benchicha (2010); *Blowing Up Paradise*, dir. Ben Lewis (2005); and *Gerboise Bleue*, dir. Djamel Ouahab (2009).

4. Nuclear energy accounts for 75% of France's electricity. The site of 58 nuclear reactors, France is also the world's most significant exporter of nuclear energy. See <http://www.world-nuclear.org/information-library/country-profiles/countries-a-f/france.aspx>.

5. In 2011, French courts rejected a lawsuit claiming the French government had failed to inform citizens properly about fallout from Chernobyl. "French Court Dismisses Chernobyl Nuclear Fallout Case after 10 Years-Asia-Pacific" *Radio France*

Internationale, September 7, 2011, <http://en.rfi.fr/asia-pacific/20110907-french-court-dismisses-chernobyl-nuclear-fallout-case-after-10-years>.

6. On the second half of the nineteenth century, see Benjamin Brower, *A Desert Named Peace: The Violence of France's Empire in the Algerian Sahara, 1844–1902* (2011). On the history of the legal and administrative status of Algeria, see Todd Shepard, *The Invention of Decolonization: Algeria and the Remaking of France* (2006).

7. Some historians use “French-Algerian War” to signal the conflict’s complexity in terms of actors and theaters. See for example, James Le Sueur, *Uncivil War: Intellectuals and Identity Politics in the Decolonization of Algeria*, (2001), 329. I will use “Algerian War” here throughout, given its widespread historical and contemporary usage.

8. For an overview of recent debates concerning access to materials on torture, see Neil Macmaster, “The Torture Controversy (1998–2002),” *Modern and Contemporary France* vol. 4, no. 2: 449–459. See also Joshua Cole, “Entering History: The Memory of Police Violence in Paris, October 1961,” in *Algeria & France 1800–2000: Identity, Memory, Nostalgia*, ed. Patricia Lorcin (2006), 117–134.

9. Todd Shepard, “‘Of Sovereignty’: Disputed Archives, ‘Wholly Modern’ Archives, and the Post-Decolonization French and Algerian Republics, 1962–2012,” *American Historical Review*, vol. 120, issue 3 (June 2015): 869–882, and Raphaëlle Branche, “Faire l’histoire de la violence d’État: la torture exercée par l’armée française en Algérie (1954–1962) in *Archives “secrètes,” secrets d’archives?*, ed. Sébastien Laurent (2003), 221–226.

10. Jan Jansen, “Politics of Remembrance: Colonialism and the Algerian War of Independence in France,” in *A European Memory?: Contested Histories and Politics of Remembrance*, eds. Małgorzata Pakier et al. (2010), 275–293.

11. Etienne Balibar, “What’s in a War?,” *Ratio Juris*, vol. 21, no. 3 (September 2008): 369.

12. Raphaëlle Branche, “The State, the Historians, and the Algerian War in French Memory, 1991–2004,” in *Contemporary History on Trial: Europe Since 1989 and the Role of the Expert Historian*, eds. Harriet Jones et al. (2007), 162–63.

13. Hayden White, “The Value of Narrativity in the Representation of History,” *Critical Inquiry*, vol. 7, no. 1 (Autumn 1980): 17–18.

14. See Gabrielle Hecht, *The Radiance of France: Nuclear Power and National Identity after World War II* (1998); Douglas Smith, “Broken Hexagon: French Nuclear Culture Between Empire and Cold War,” *Modern and Contemporary France*, vol. 18, no. 2 (2010): 216; and Anne Sa’adah, *Contemporary France: A Democratic Education* (2003), 88.

15. Hecht, *The Radiance of France*, 39.

16. Maurice Vaisse, “Le choix atomique de la France (1945–1958),” *Persée*, vol. 36, no. 1 (1992): 29.

17. Dominique Mongin, “Genèse de l’armement nucléaire français,” *Revue historique des armées* no. 262 (2011): 9–19.

18. Edmond Jouhaud, “L’heure d’un choix,” *L’Air*, December 15, 1958; quoted in Samy Cohen, “France, Civil-Military Relations, and Nuclear Weapons,” *Security Studies*, vol. 4, no. 1 (1994): 163.

19. Hecht, *The Radiance of France*, 92–93.
20. Hecht, *Being Nuclear: Africans and the Global Uranium Trade* (2012), 107–108.
21. Hecht, *The Radiance of France*, 5, 8.
22. Wolf Mendl, *Deterrence and Persuasion: French Nuclear Armament in the Context of National Policy, 1945–1969* (1970), 174–75; Wittner, 230–235; April Carter, *Peace Movements*, (1992), 64; and April Carter “The Sahara Protest Team,” in *Liberation Without Protest: A Third Party Approach*, eds. A. Paul Hare et al. (1977), 151.
23. Benjamin Stora, *Algeria 1830–2000* (2001) and Alistair Horne, *A Savage War of Peace* (2012), 365–366, 374. Horne also discusses the Saharan test site and the negotiations at Evian, 472.
24. For example, only the first French test appears in Alain-Gérard Slama’s *La Guerre d’Algérie: Histoire d’une déchirure* (1996), or in the multi-page chronology of 1830–1999 of *France and the Algerian War, 1954–1962* (2013), eds. Martin S. Alexander and J.F.V. Keiger, xv.
25. Matthew Connelly, *A Diplomatic Revolution: Algeria’s Fight for Independence and the Origins of the Post-Cold War Era* (2002), 3.
26. Cited in Horne, *A Savage War of Peace*, 365–366. Governor General of Algeria from 1955–56, Soustelle supported De Gaulle’s return to a leadership role in 1958. He served as the Fifth Republic’s Minister of Information, then as Minister of State for Overseas Departments, but later joined the OAS.
27. Bruno Tertrais, “Nuclear Coup? France, the Algerian War and the April 1961 Nuclear Test,” February 27, 2012, *Nonproliferation Policy Education Center*, http://www.npolicy.org/article_file/A_Nuclear_Coup-France_the_Algerian_War_and_the_April_1961_Nuclear_Test.pdf, 20. See Horne, *A Savage War of Peace*, 459. While the first French test at Reggane does not appear in Horne’s two-page timeline of the war, the April 25, 1961 test does, 571.
28. Quoted in Tertrais, 11. See Shepard’s discussion of the wartime pamphlet, “No to atomic suicide!” in *The Invention of Decolonization*, 119.
29. Jean-Marc Regnault, “France’s Search for Nuclear Test Sites, 1957–1963,” *Journal of Military History*, vol. 67, no. 4 (2003): 1228. According to Regnault, the French never intended the Sahara as a permanent site, but technical and economic constraints delayed the establishment of a site in the Pacific from the outset.
30. Jacques Frémeaux, “The Sahara and the Algerian War,” in *The Algerian War and the French Army, 1954–62: Experiences, Images, Testimonies*, eds. Martin Alexander et al. (2002), 76.
31. John Ruedy, *Modern Algeria: The Origins and Development of a Nation*, 2nd edition (2005), 183.
32. Phillip Naylor, *France and Algeria* (2000), 29.
33. Shepard, *The Invention of Decolonization*, 139; Slama, 115; Dorothy Pickles, *Algeria and France: From Colonialism to Cooperation* (1963), 135.
34. Jeffrey James Byrne, “Négociation perpétuelle: de Gaulle et le FLN, 1961–1968,” in *De Gaulle et l’Algérie, 1943–1969*, ed. Maurice Vaisse (2012).

35. Pickles, 192. The reference is to a speech made by the Algerian President on November 3, 1962.

36. Benjamin Stora, *La gangrène et l'oubli* (2005), 325. It is the only nuclear test Stora includes in his timeline.

37. See Naylor, *France and Algeria*, 55, 58–59 and Byrne, “Négociation perpétuelle,” 306.

38. Apart from Connelly, Martin Thomas examines the Algerian question at the UN during this period. He makes no mention of the debates over nuclear testing in the Sahara, however. See “France Accused: French North Africa before the United Nations, 1952–1962,” *Contemporary European History*, vol. 1, no. 1 (2001): 91–121.

39. See Rob Skinner, “Bombs and Border Crossings: Peace Activist Networks and the Post-colonial State in Africa 1959–62,” *Journal of Contemporary History*, vol. 50, no. 3 (July 2015): 418–438; Jean Allman, “Nuclear Imperialism and the Pan-African Struggle for Peace and Freedom: Ghana, 1959–1962,” *Souls*, vol. 10, no. 2 (2008): 83–102; Vincent Intondi, *African Americans Against the Bomb: Nuclear Weapons, Colonialism, and the Black Freedom Movement* (2015); and “International team campaigns against nuclear testing in Africa (Sahara Protest) 1959–1960,” *Global Nonviolent Action Database*, <https://nvdatabase.swarthmore.edu/content/international-team-campaigns-against-nuclear-testing-africa-sahara-protest-1959-1960>.

40. For an analysis of the British and U.S. responses to France’s proposed tests, including the UN debates of 1959, see Mervyn O’Driscoll, “Explosive Challenge: Diplomatic Triangles, the United Nations, and the Problem of French Nuclear Testing, 1959–1960,” *Journal of Cold War Studies*, vol. 11, no. 1 (Winter 2009): 28–56.

41. UN, *Annual Report of the Secretary-General on the Work of the Organization, 16 June 1959–15 June 1960*, General Assembly, Official Records: 15th Assembly, Supplement no. 1 (A/4390), 3. I use UN to refer to United Nations documents in official English, and ONU (Organisation des Nations Unies) to refer to those in French. All translations are my own unless otherwise noted. All dates are in English format.

42. UN General Assembly, 14th Session, *Official Record, 840th Plenary Meeting*, November 20, 1959. For the complete text of the final resolution, see UN General Assembly, 14th Session, “Resolutions Adopted of the Reports of the First Committee,” 1379 (XIV), “Question of French Nuclear Tests in the Sahara,” 3.

43. ONU, 14e Session, *Documents Officiels, Première Commission, Compte rendu*, 1043e séance, November 4, 1959, A/C.1/SR.1043, 89.

44. UN, 14th Session, *First Committee, Verbatim Record, 1051st Meeting*, 6.

45. UN, 14th Session, *First Committee, Verbatim Record, 1051st Meeting*, 28.

46. UN, *Documents sur le désarmement*, 38. Moch served in multiple ministries of the Third and Fourth Republics, and as France’s delegate to the UN Disarmament Commission from 1951 to 1960.

47. UN, 14th Session, *First Committee, Verbatim Record, 1051st Meeting*, 28–31.

48. ONU, 14e Session, *Documents Officiels, Première Commission, Compte rendu*, 1044e séance, November 5, 1959, A/C.1/SR.1044, 99.

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49. ONU, 14e Session, *Documents Officiels, Première Commission, Compte rendu, 1043e séance*, 94.
50. See Mohamed Alwan, *Algeria Before the United Nations* (1959), as well as the GPRA's "The Internationalization of the Algerian Problem and Its Inscription on the Agenda of the General Assembly of the United Nations from 1957–1959," Wilson Center Digital Archive, Dossier 37/01/10; Fond GPRA, 1958–1962, <http://digital.archive.wilsoncenter.org/document/121601>. Alwan's study ends before November 1959 (and the UN's 14th Session), and the GPRA's overview does not mention the debate over the Saharan tests.
51. ONU, 14e Session, *Documents Officiels, Première Commission, Compte rendu, 1053e séance*, November 12, 1959, A/C.1/SR.1053, 145.
52. UN, 14th Session, *First Committee, Verbatim Record, 1051st Meeting*, 6.
53. ONU, 14e Session, *Documents Officiels, Première Commission, Compte rendu, 1047e séance*, November 9, 1959, A/C.1/SR.1047, 111.
54. ONU, 14e Session, *Documents Officiels, Première Commission, Compte rendu, 1045e séance*, November 6, 1959, A/C.1/SR.1045, 102.
55. UN, 14th Session, *First Committee, Verbatim Record, 1051st Meeting*, 46.
56. Moch's many publications included *La Folie des hommes (au sujet de la bombe atomique)* (1955), and "Les problèmes actuels du désarmement," *Politique étrangère*, vol.20, no.2 (1955): 127–140.
57. In October 1958, the three powers agreed to a test moratorium, but the U.S.S.R. and U.S. resumed testing in 1961. Subsequent negotiations at the Geneva Conference on the Discontinuance of Nuclear Weapon Tests continued through 1962. See Bruce Larkin, *Nuclear Designs: Great Britain, France, and China in the Global Governance of Nuclear Arms* (1996), 83–84.
58. See the official transcript of De Gaulle's November 10, 1959 statement to the French press published in English translation in the *New York Times*, November 11, 1959, 10. Farad Zeineddine of the UAR cited the statement during the Sahara test debate at the UN's First Committee meeting later that day.
59. UN, 14th Session, *First Committee, Verbatim Record, 1051st Meeting*, 33.
60. Jules Moch, "Speech delivered to the First Committee, November 4, 1959," UN *Documents sur le désarmement*, 40.
61. UN, 14th Session, *First Committee, Verbatim Record, 1051st Meeting*, 41–42. See Brower, *A Desert Called Peace* and E. Ann McDougall, "Constructing Emptiness: Islam, Violence, and Terror in the Historical Making of the Sahara," *Journal of Contemporary African Studies*, vol. 25, no. 1 (January 2007): 17–30.
62. ONU, 14e Session, *Documents Officiels, Première Commission, Compte rendu, 1043e séance*, 89.
63. This sentiment is underlined in interviews with inhabitants of the area in Benchicha's documentary, *L'Algerie, De Gaulle, et la bombe*.
64. UN, 14th Session, *First Committee, Verbatim Record, 1051st Meeting*, 36–37.
65. Moch, "Speech delivered to the First Committee, November 4, 1959," 42.
66. UN, 14th Session, *First Committee, Verbatim Record, 1051st Meeting*, 16.

67. ONU, 14e Session, *Documents Officiels, Première Commission, Compte rendu, 1047e séance*, 113.
68. ONU, 14e Session, *Documents Officiels, Première Commission, Compte rendu, 1045e séance*, 103.
69. ONU, 14e Session, *Documents Officiels, Première Commission, Compte rendu, 1045e séance*, 129–130.
70. ONU, 14e Session, *Documents Officiels, Première Commission, Compte rendu, 1049e séance*, November 10, 1959, A/C.1/SR.1049, 123.
71. ONU, 14e Session, *Documents Officiels, Première Commission, Compte rendu, 1043e séance*, 130.
72. ONU, 14e Session, *Documents Officiels, Première Commission, Compte rendu, 1051e séance*, November 11, 1959, A/C.1/SR.1051, 136.
73. ONU, 14e Session, *Documents Officiels, Première Commission, Compte rendu, 1051e séance*, 130.
74. ONU, 14e Session, *Documents Officiels, Première Commission, Compte rendu, 1044e séance*, 97.
75. UN, 14th Session, *First Committee, Verbatim Record, 1051st Meeting*, 16–17.
76. *Le Figaro*, February 13–14, 1960, 5. See Hecht's discussion of the media spectacle surrounding Gerboise Bleue in *The Radiance of France*, 207.
77. "Le problem des essais nucléaires français au Sahara sera inscrite à l'ordre du jour provisoire de l'ONU," *Le Monde*, August 16–17, 1959. *Le Monde* included daily reports of the debate at the UN from November 4 to 14, 1959.
78. I am grateful to Derryl Maclean for this English translation from the Arabic.
79. See *Grafik der Revolution: Burhan Karkutli, ein palästinensischer Künstler* (1981) and Fatima Abbadi, "A Tale of Love and Revolution-Burhan Karkutli," Fatima Abbadi Photography site, <http://fatimaabbadi.blogspot.com/2014/02/a-tale-of-love-and-revolution-burhan.html>.
80. ONU, 14e Session, *Documents Officiels, Première Commission, Compte rendu, 1046e séance*, November 9, 1959, A/C.1./SR.1046, 109.
81. ONU, 14e Session, *Documents Officiels, Première Commission, Compte rendu, 1050e séance*, 128.
82. ONU, 14e Session, *Documents Officiels, Première Commission, Compte rendu, 1045e séance*, 101.
83. ONU, 14e Session, *Documents Officiels, Première Commission, Compte rendu, 1043e séance*, 90.
84. ONU, 14e Session, *Documents Officiels, Première Commission, Compte rendu, 1051e séance*, 136.
85. Charles de Gaulle, "Telegram to Pierre Guillaumat," February 13, 1960; quoted in Constantine Pagedas, *Anglo-American Strategic Relations and the French Problem, 1960–1963* (2000), 1.
86. Kwame Nkrumah, "French Atomic Tests in the Sahara," Speech given in Accra, Ghana on February 13, 1960, in *Selected Speeches of Kwame Nkrumah* vol. 1, ed. Samuel Obeng (1997), 25.

87. Arsan Selmane, "Le timbre-poste algérien de 2005 à 2014," January 8, 2015, <http://www.philateliedz.com/detailsArticles.php?typeart=A&idart=80>.

88. Mohamed Achour Ali Ahmed, "Reggane par le Nevada," *El Watan*, February 18, 2015, <http://mondephilatelique.blog.lemonde.fr/files/2016/02/Reggane-par-le-Nevada.jpg>.

89. *Historia Magazine* no. 315, May 21, 1973. Selman also mentions the figure in his review of the stamp.

90. I am borrowing here from Ann Laura Stoler's *Imperial Debris: On Ruins and Ruination* (2013).

91. The return of Algerian remains now held in France, archives, and compensation for victims of nuclear testing are the subject of ongoing negotiations between both governments. See the comments made by Tayeb Zitouni, the Algerian Minister of Mujahedeen, in 2016 in "Algeria: Zitouni-No Dispute Between Algeria, France," *Algérie Presse Service*, January 28, 2016, <https://allafrica.com/stories/201601281378.html>.