Cambridge Journal of Postcolonial Literary Inquiry, 3(3), pp 273–290 September 2016.
 doi:10.1017/pli.2016.14

Afronauts: On Science Fiction and the Crisis of Possibility

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This essay investigates the critical function of science fiction (SF) tropes in SF and non-SF works by and about Africans. It begins with the assertion that works that invoke SF tropes, even if they are not properly speaking SF, can productively be read within the frame of SF. It then analyzes the ways in which writers and visual artists use speculative technological advances to explore the systematic marginalization of the African continent in the world-system. Drawing on Darko Suvin, Raymond Williams, and Fredric Jameson, it illustrates how these works use the cognitive estrangement characteristic of SF to posit a break in established systems of thought; this is, ultimately, a utopian gesture. Works discussed include Deji Bryce Olukotun's Nigerians in Space*, Sony Labou Tansi's* Life and a Half*, Ngugi wa Thiong'o's* Wizard of the Crow*, Cristina de Middel's* The Afronauts*, and Frances Bodomo's* Afronauts*.*

Keywords: estrangement, speculative technology, speculative history, development and modernization, Afronauts, *Nigerians in Space*, *Life and a Half*, *Wizard of the Crow*, Edward Makuka Nkoloso

This essay analyzes the critical function of science fiction (SF) tropes in narratives by and about Africans. I will argue that a variety of textual and visual works use SF tropes—and, specifically, speculative technologies or technological advances—to engage with, contest, and critique received ideas about the African continent and its relationship to technology as the signifier of "modernity" and "development." My starting proposition is that, even if the work as a whole cannot be properly categorized as SF, SF nevertheless provides a productive critical lens for its interpretation. I take SF to be the narrative mode characterized by technological speculation and, following Darko Suvin, "the space of potent estrangement."[1] The combination of speculation and estrangement generates conjecture by continually raising the question "what if . . . ?" The continual invitation to conjecture, in turn, produces *speculative histories*, which point to possible alternatives (alternate histories and futures) at the same time as they call for critical reflection on history itself as narrative, the construction of which

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1 Darko Suvin, *Metamorphoses of Science Fiction* (New Haven: Yale University Press, 1979), viii.

conditions our understanding of both the present and future. *Speculative* here is not only a synonym for *conjecture*; I also draw on the transitive sense of the verb "to speculate," as in: to consider, examine, reflect, or theorize upon something with close attention.[2] Speculative histories do not just produce conjectural alternatives; in so doing, they further compel a critical analysis of the past, the present, and its possible futures.

The argument unfolds in three interlocking parts: the first looks at the role of SF in Deji Bryce Olukotun's *Nigerians in Space* (2014), a novel more appropriately categorized as a crime thriller. The second outlines a working definition of SF and SF tropes, demonstrating the critical function these play in two African novels, Sony Labou Tansi's *La Vie et demie* (*Life and a Half*, 1979) and Ngugi wa Thiong'o's *Murogi wa Kagogo* (*Wizard of the Crow*, 2004–2007; 2006). In the third, I return to the question of Africans in space and the figure of the "Afronaut" with attention to two recent visual works: the Spanish photographer Cristina de Middel's collection, *The Afronauts* (2012), and the US-based Ghanaian filmmaker Frances Bodomo's short, *Afronauts* (2014). Both were inspired by the schoolteacher Edward Makuka Nkoloso's attempt to start a space program in Zambia in the early in 1960s. In taking up this historical anecdote, the two projects offer speculative histories of the Cold War space race and decolonization on the African continent. These speculative histories shed new light on the past, using the critically disruptive potential of SF not to offer a blueprint for a putatively "better" future but—crucially—to unsettle received ideas about Africa in the present.

Playing Talking Drums on the Moon: The Enigma of Technological Arrival

The plot of Deji Bryce Olukotun's *Nigerians in Space* centers on a program dubbed "Operation Brain Gain." Orchestrated by Nurudeen Bello, a "special adjunct" to the Minister of the Environment, it aims to reverse the losses of "brain drain" by attracting highly educated members of the diaspora back to Nigeria. What Nigeria needs, Bello insists, is not more oil but more minds.[3] At the start of the novel, Bello has secured the participation of Wale Olufunmi, a lunar geologist working at NASA who has always dreamed of walking on the moon. Just as Brain Gain is put into action, however, carefully laid plans unravel, and each of the scientists recruited is eventually killed. The novel here transforms into an international crime thriller, moving from Houston, to Stockholm, Basel, Cape Town, Bulawayo, Paris, and Abuja; the action spans from 1993 through the first decade of the twenty-first century.

Despite the failure of the fictional Operation Brain Gain, Nigeria in the twenty-first century is indeed "in space." Established in 2001, Nigeria's National Space Research and Development Agency (NASRDA) has launched several communications satellites. Although these are not yet built in Nigeria, part of the progress envisioned by the fictional Bello has come to pass in reality, as Bello himself points out at the end of the novel.[4] Nigeria is not an isolated case: NASRDA is far from alone on the

2 I also have in mind Robert Heinlein's foundational definition of the "speculative story" as: "the story embodying the nation 'just suppose' or 'what would happen if . . .' " (1993, 9).

3 Deji Bryce Olukotun, *Nigerians in Space* (Los Angeles: Unnamed Press, 2014), 111.

4 As explained in the essay "Meeting my Protagonist," Olukotun wrote much of the first draft *of Nigerians in Space* before learning of NASRDA's existence. He describes the uncanny experience of

https://doi.org/10.1017/pli.2016.14 Published online by Cambridge University Press

continent.[5] Africa has a long history as the site of astronomical research, and the South African Astronomical Observatory (founded as the Royal Observatory at the Cape of Good Hope in 1820) features heavily in the novel. Yet, the narrative turns on the perceived impossibility of putting a Nigerian in space and, by extension, of the African astronaut or "Afronaut." It is a conceit whose Icarian ambitions cast Bello as both visionary and con man, while also recalling the fantastic voyages and speculative technological advances that are the currency of science fiction (SF) narratives.

To be clear, the failed moon mission in *Nigerians in Space* is only "SF" in so far as its success is presumed impossible. At stake here are assumptions about "Africa"—as a set of ideas about the continent—and its relationship to technology and modernity, as defined by the global North. The novel's central technological proposition, the moon mission, is hardly speculative in technological terms. But, even though Wale works for NASA, a moon mission assignment is highly unlikely; were such an operation in the offing, NASA would give priority to American astronauts. It is in the face of this unlikelihood that Wale decides to participate in Brain Gain. One of the novel's central assertions, then, is that the limits that determine what is "speculative" (hypothetical or notional because of current limitations) are as much political as technological. Following from this, what interrupts Operation Brain Gain in the novel is not technological shortfall but regime change. The project is eliminated following a coup; a shadowy intelligence unit known as the Ibeji, whose goal was to keep Nigeria's focus on oil extraction, then undertakes the systematic assassination of the scientists involved.[6]

Operation Brain Gain, therefore, is a play on ideas of Africa as a continent of permanently "developing" nations, whose failures to properly modernize are of a piece with the more generalized political failures of African nation-states. This modernization story, to paraphrase James Ferguson's analysis in *Global Shadows*, posits specific forms of social, economic, and technological development not just as desirable, but as "natural."[7] It creates what Mary Louise Pratt has called a "teleology of catching up."[8] In this framework, true independence can be achieved only by the completion of that process of development. Nations on the periphery of the world-system will remain dependent until they are done "catching up." As Bello puts it in *Nigerians in Space*: "Our dependence must *evolve* into independence" (emphasis mine).[9] But the completion of this process is categorically impossible. While these paradigms propose a teleology, in truth the periphery must always remain in a relation

meeting NASRDA's director of engineering, Olufemi Agboola, who bears many similarities to the fictional Wale Okufunmi.

5 The South African National Space Agency (SANSA) was founded in 2010. In 2015, Ethiopia launched the Ethiopian Space Science Society, with support from private capital, and Egypt announced plans for a space agency. The African Union has long had in development plans for an African Space Agency (AfriSpace).

6 My discussion of *Nigerians in Space* owes much thanks to Katherine Hallemeier, who shared with me her conference paper "The Deep State in *Nigerians in Space*" (MLA 2016).

7 James Ferguson, *Global Shadows* (Durham, NC: Duke University Press, 2006), 177–78.

8 Mary Louise Pratt, "Modernity and Periphery," in *Beyond Dichotomies*, ed. Elizabeth Mudimbe-Boyi (Albany, NY: State University of New York at Purchase Press, 2002), 30.

9 Olukotun, *Nigerians*, 111.

of contradiction, complementarity, or differentiation.[10] There is, after all, no "civilization," "modernity," or "development" without its opposite.

Some further nuance is useful. In the aforementioned framework, "Africa" is not simply the space of absence or negation. It functions as what Ferguson calls a "shadow"—"an inseparable-other-who-is-also-oneself to whom one is bound."[11] Africa is neither simply a copy nor something from which the global North can disentangle itself. As Ferguson writes: "Claims of likeness, in this context, constitute not a copying, but a shadowing, even a haunting—a declaration of comparability, an aspiration to membership and inclusion."[12] "Haunting" here implies responsibility, and Ferguson pays useful attention to the ways in which Africans make moral claims on the current global order. Africa as both an empirical reality and set of ideas haunts the global North's narratives about itself, illuminating truths that might otherwise be easily overlooked.

For instance, Wale and Bello's dedication to putting Nigerians on the moon evokes the spectacular moon missions of the Cold War space race between the United States and USSR, which made of the moon a double for the regions of the world the two powers sought to bring under their influence. For Bello, had Brain Gain's moon mission succeeded, it would have proved Nigeria's technological "arrival" as well as its political autonomy. He looked forward to planting Nigeria's flag on the moon's surface. He also required Wale to steal a specimen from the Lunar Sample Repository (NASA), so as to return "the cultural patrimony of all mankind" to its place of origin.[13] But the height of the space race, like the Cold War itself, is long past; in the Lunar Sample Repository, Wale plainly works among its remainders. A successful mission would at best have been a belated victory. The lunar ambitions of Brain Gain, therefore, point as much to Nigeria's technological underdevelopment and the political marginalization of the state (one of several states on the periphery) as to the diminished importance of (manned) space travel in the post-Cold War present. In doing so, the story of Operation Brain Gain makes visible the larger, global technological, political, and economic shifts that have taken place in the last half-century.

Yet, even as the plot moves toward the generic conventions of the crime thriller, *Nigerians in Space* does not dismiss the allure of space travel. Space is still the place of speculative possibility: both a refuge from and means for thinking beyond the current global order. Its importance is evinced in a short passage in which Wale (in 1993) imagines his arrival on the moon:

> He [Wale] wouldn't hit golf balls like the American astronauts. He would squeeze out rhythms from a talking drum into the blackness of the stars. These were the drums of war and of death, of celebration, the drums that had bonded the towns of his homeland over centuries in tonal communication. He didn't actually know how to play one but he figured he could take lessons. He would bind the stars with his drums. There would be dancing.[14]

10 Pratt, "Modernity," 35.
11 Ferguson, *Global Shadows*, 17.
12 Ibid.
13 Olukotun, *Nigerians*, 64.
14 Ibid., 26–27.

https://doi.org/10.1017/pli.2016.14 Published online by Cambridge University Press

Wale here imagines an alternate model for affiliation and community. This is one posed against the NASA precedent so firmly grounded in the rivalries of the Cold War as well as the interests of the US military-industrial complex. But it is also very much a notional fantasy, as signaled by Wale's acknowledgment that he does not know how to play a drum. The point is not, then, that Wale is actually planning what he will do on the moon (it is not a blueprint) but that this moment of conjecture is the act of disruption from which new forms of thinking might emerge.

Wale's dream of going to the moon, further, links *Nigerians in Space* to the larger history of SF, in which the moon mission and landing have long been important tropes. In these stories, the journey to the moon and the beings or communities encountered therein provide opportunity to reflect on social, political, and economic realities at home.[15] Olukotun's novel, although not properly speaking SF, thereby retains the speculative potential of SF. It uses the prospect of a moon mission to critique the systematic marginalization of the African continent in the world-system and emphasizes the imbrications of politics in the Postcolony, as described in the work of Achille Mbembe and others, with the uneven global distribution of power. In this case, its target is a system that demands Nigeria remain the supplier of cheap oil to the global market at the cost of real economic development or political autonomy at home.

Africa and/in/as SF: Speculative Technologies, Estrangement, and Critique

As suggested in the aforementioned, recourse to SF in this essay does not presume all works discussed conform to the genre. Even brief review of the critical literature makes clear that SF has uncertain and permeable boundaries. For this reason, it is often treated as a narrative mode rather than a genre. As Veronica Hollinger writes, "mode implies not a kind but a method, a way of getting something done."[16] Hollinger echoes Samuel R. Delany's definition of SF as "a set of questions we expect to be answered,"[17] as well as Istvan Csicsery-Ronay Jr.'s: "[it is] a mode of awareness, a complex hesitation about the relationship between imaginary conceptions and historical reality unfolding into the future."[18] My own invocation of SF as a critical "lens" refers to SF as a way of asking and thinking about questions. By extension, an SF trope can function as the point of entry into the larger argument of a work.

15 As Darko Suvin notes, the moon voyage is an extension of the "fantastic island" narrative: "This is the planetary island in the aether ocean" (1979, 5). See, for instance, Cyrano de Bergerac's *Comical History of the States and Empires of the Moon* (1657); Washington Irving's "Conquest of the Moon" (1809); Joseph Adderly (George Tucker)'s *A Voyage to the Moon: With Some Account of the Manners and Customs, Science and Philosophy, of the People of Morosofia and Other Lunarians* (1827); Edgar Allan Poe's "The Unparalleled Adventures of One Hans Pfaall" (1835); the "Great Moon Hoax" of 1835, in which the New York newspaper *The Sun* published a fictional account describing the fantastic inhabitants of the moon; and Jules Verne's *From the Earth to the Moon* (1865) and *All Around the Moon* (1870).

16 Veronica Hollinger, "Genre vs. Mode," *The Oxford Handbook of Science Fiction*, ed. Rob Latham (New York: Oxford University Press, 2014), 140.

17 Samuel R. Delaney, *Starboard Wine*, rev. ed. (Middleton, CT: Wesleyan University Press, 2012), 172.

18 Istvan Csicsery-Ronay Jr., "The SF of Theory: Baudrillard and Haraway," *Science Fiction Studies* 18.1 (1991): 388, accessed February 1, 2016.

What Csicsery-Ronay Jr. calls "complex hesitation" overlaps with Darko Suvin's widely cited description of SF as "the literature of cognitive estrangement." According to Suvin, SF narratives present the reader with an imaginative framework different from her empirical environment. Difference is produced by the presence of a "strange newness" or "novum." This is the novelty or innovation that sets the imagined world apart from the reader's lived experience. The binding together of the two realms in the narrative produces what Suvin terms "cognitive estrangement." Estrangement here refers to Bertolt Brecht's *Verfremdungseffekt*—translated as the distancing, alienation, or estrangement effect. The goal is to distance the reader or viewer from her reality, and in so doing to give a critical perspective thereon. More simply put: the purpose of the "alienation effect" is "de-alienation" rather than distraction.[19] This is what gives SF its critical friction, whether as a "literature of ideas,"[20] as social satire or critique,[21] or as vehicle for the contemplation of utopian projects.[22] As Raymond Williams has written: "part of the power of science fiction [is] that it is always potentially a mode of authentic shift: a crisis of exposure which produces a crisis of possibility."[23]

SF has a different texture and different stakes in postcolonial contexts. This is because what today constitutes mainstream SF emerged in dialogue with European discourses of imperialism, in particular nineteenth-century evolutionary theory and anthropology.[24] The formerly colonized world and the African continent in particular have long been an important location for the SF imagination and continue to serve, recalling Ferguson, as the "shadow" for fantasies of technological innovation.[25] But, if mainstream SF reproduces the imperialist discourses that postcolonialism aims to disrupt, several recent studies and anthologies sustain that the emergence of post-colonial science fiction heralds the repurposing of SF for critical ends commensurate with the project of postcolonial criticism.[26]

Along similar lines, Afrofuturism—a term that includes African American, diasporic, and African perspectives—appropriates the tropes of SF, but remains irreducible to it.[27] Afrofuturism expands speculation beyond technology to questions of political and social arrangements, imagining possible alternate futures as well as

19 Suvin, *Metamorphoses*, 7–8.

20 Francis Berthelot, *La métamorphose généralisée* (Paris: Éditions Nathan, 1993), 13.

21 Fredric Jameson, *Archaeologies of the Future* (New York: Verso, 2005), 91–93.

22 Suvin, *Metamorphoses*; Williams "Utopia and Science Fiction;" Jameson, *Archaeologies*; Eric D. Smith, *Globalization, Utopia, and Postcolonial Science Fiction* (New York: Palgrave Macmillan, 2012).

23 Raymond Williams, "Utopia and Science Fiction," *Culture and Materialism* (New York: Verso, 1980), 209.

24 John Rieder, *Colonialism and the Emergence of Science Fiction* (Middleton, CT: Wesleyan University Press, 2008), 2. See also Patricia Kerslake, *Science Fiction and Empire* (Liverpool: Liverpool University Press, 2011).

25 Mark Bould, introduction to *Africa SF*, ed. Mark Bould (Vashon, WA: Paradoxa, 2013), 8–9, and Jessica Langer, *Postcolonialism and Science Fiction* (New York: Palgrave Macmillan, 2011), 9. See also Ericka Hoagland and Reema Sarwal, eds., *Science Fiction, Imperialism, and the Third World* (Jefferson, NC: McFarland, 2010).

26 Nalo Hopkinson and Uppinder Mehan, eds.. *So Long Been Dreaming* (Vancouver: Arsenal Pulp Press, 2004), 8–9. See also Gerry Canavan, "Decolonizing the Future (Review Essay)," *Science Fiction Studies* 39.2 (2012); Langer, *Postcolonialism*; Smith, *Globalization*; Hoaglan and Sarwal, *Science Fiction*; and Carstens and Roberts, "Protocols for Experiments in African Science Fiction," *Scrutiny 2* 14.1 (2009).

27 Mark Bould, "The Ships Landed Long Ago: Afrofuturism and Black SF," *Science Fiction Studies* 34.2 (2007): 182, accessed February 17, 2016.

critically reimagining the past. It is, in this sense, a mode of speculative fiction that treats African American, diasporic, and African themes and concerns in the context of contemporary technology and technoculture.[28] Both postcolonial SF and Afrofuturism, therefore, demand a rethinking of the boundaries of SF as well as of its internal structuring logics.

Here, Suvin's notion of the "novum" is useful for understanding the mechanics that enable the critical function of speculative narratives. For Suvin, the necessary "newness" of the novum makes it impossible to give a static description of the term, because newness is temporally specific. As Suvin writes:

> The new is always a *historical* category since it is always determined by historical forces which both bring it about in social practice (including art) and make for new semantic meanings that crystallize the novum in human consciousness.[29]

For this reason, SF is also always a way of commenting on or critiquing its present. In order to analyze a work or instance of SF, one must understand the technological but also social, cultural, political, and economic factors that determine the newness of the novum. Following from this, the novum can be understood as the hieroglyph that encrypts the larger critical project of a work.

With this in mind, I offer a set of examples of the critical role played by "nova" in two African novels. Sony Labou Tansi's *Life and a Half* and Ngugi wa Thiong'o's *Wizard of the Crow* are primarily critiques of the African dictator and dictatorship in the Postcolony. Both are set in fictional African countries and include fantastic, magical, and speculative elements or events. Although these two novels have often been treated as examples of "magical realism," my own analysis follows arguments by Lydie Moudileno and Ian P. MacDonald for reading *Life and a Half* and *Wizard of the Crow*, respectively, as works of SF.

Both novels introduce speculative technological advances that produce what MacDonald, thinking with Suvin, calls "technological estrangement." As with Suvin's cognitive estrangement, the speculative technologies in Labou Tansi and Ngugi's novels induce friction between ideas of "Africa" (functioning as an assumed empirical reality) and the imagined world of the novel.[30] These speculative technologies (the nova) are not simply new inventions; they occur in relation to previously existing customs or practices. It is this interweaving of old (familiar) and new (unfamiliar), rather than the fact of the speculative technology itself that produces the "strange newness" characteristic of the novum. The SF tropes in these novels at once provide a critique of essentialist assumptions about Africa (in particular in relation to technology) as well as of dictatorship in the Postcolony and the larger global systems that sustain and benefit from these regimes.

Labou Tansi's *Life and a Half* tracks the violent reign of the Providential Guides, a line of dictators "supplied" by an unnamed European power. Technology becomes

28 Mark Dery, "Black to the Future," *Flame Wars*, ed. Mark Dery (Durham, NC: Duke University Press, 1993), 180.

29 Suvin, *Metamorphoses*, 80.

30 Ian P. MacDonald, "The Cybogre Manifesto," *Research in African Literatures* 47.1 (2016), 67, accessed March 28, 2016.

increasingly central as the narrative unfolds. For instance, the novel opens with a scene in which the Providential Guide kills an opposition leader and consumes his flesh. Some generations later, the practice is transformed by technology: instead of eating a dissident journalist, the (current) Providential Guide has the journalist's organs transferred into his own body. The earlier act of cannibalism is refigured as modernized consumption via organ transplant. But this moment also reconfigures our understanding of the medical procedure, infusing a widespread medical practice with a strange, alarming newness through its association with the earlier act of cannibalism.

Later on in the narrative, a portion of the original country secedes, setting off an arms race and, eventually, an atomic war that destroys the world. It is with these descriptions of notional military technologies and scenes of nuclear destruction in mind that Lydie Moudileno has proposed reading *Life and a Half* as SF. There is, Moudileno argues, an axiomatic shift, characterized by this borrowing from the repertoire of SF in the last third of the novel. In making this shift, Labou Tansi juxtaposes two distinct representations of Africa. The first is a "tropical" and a-temporal "Africa-as-against-modernity"; the second is "a historicized Africa anchored in rationality and participating in the movement of modernity," even as that movement results in nuclear apocalypse.[31]

While Moudileno's emphasis is on the latter representation of Africa, Labou Tansi also addresses the endurance of the former within the novel. Toward the end of the narrative, a representative of the breakaway republic (Jean Cold-Blooded) visits the foreign power that supplies the Guides. In conversation, he makes pointed reference to their belated recognition of Darmellia's independence and then describes Darmellia's recent technological advances. But: "Everybody thought that Jean Cold-Blooded was talking about the technological backwardness of his country."[32] Labou Tansi here stages a form of thinking that cannot "see" the newness of the novum. The object of critique is the technological marginalization of the African continent, as well as the refusal to see any evidence to the contrary. The novel's treatment of this question mirrors its treatment of dictatorship: rather than being rooted in African primitivism, as the foreign power that supplies the Guides might prefer to assume, dictatorship in the Postcolony is produced and supported by the needs of global capital and empire.

In *Wizard of the Crow*, Ngugi makes similar use of speculative technological advances. At the start of the novel, the government unveils plans to build a "new Tower of Babel," dubbed "Marching to Heaven." Although the initial metaphoric register for this tower is biblical, it is quickly assimilated to space exploration. As an editorial in the official newspaper declares, once Marching to Heaven is completed America will no longer be able to monopolize space.[33] But, like Bello's Operation Brain Gain, Marching to Heaven ultimately fails. On first reading, and in so far as technological ambitions are associated with the posturing of the authoritarian state, the novel would seem to mirror assumptions about Africa's technological backwardness. In mobilizing these assumptions to criticize dictatorial regimes, however,

31 Lydie Moudileno, "Magical Realism: *Arme miraculeuse* for the African Novel?" *Research in African Literatures* 37.1 (2006), 35–36. accessed May 13, 2013.

32 Sony Labou Tansi, *Life and a Half*, trans. Alison Dundy (Bloomington: Indiana University Press, 2011), 126–27.

33 Ngugi wa Thiong'o, *Wizard of the Crow*, trans. Ngugi wa Thiong'o (New York: Pantheon, 2006), 23.

Ngugi exposes them to critique. The object of satire here is received ideas about technology as much as about the dictator and dictatorship on the African continent.

In the world of *Wizard of the Crow*, space travel is not "new." What gives the technological advances in this novel the "strange newness" of the novum is the ways in which, as with the organ transplants in *Life and a Half*, it weaves together old and new. For instance, during a visit to the United States, Tajirika (a government functionary) sees an advertisement for a company that promises complete physical transformation. Earlier crippled by his desire to be white, Tajirika begins the process, receiving a white arm and leg before the company is shut down. Although Tajirika tries to hide his condition, his daughter sees him and is convinced ogres have taken over her father's body, as they do in stories.[34] In a final twist, Tajirika's incomplete transformation makes it possible for him to unseat the Ruler, as the security forces are transfixed by his altered body and come to his aid.[35]

The ogre, both literal and figurative, is a recurring figure in Ngugi's work. In *Devil on the Cross* (1980), for example, the ogre embodied the rapacious national bourgeoisie working in the service of foreign interests. It serves a similar function in *Wizard of the Crow*. But here the transformation is facilitated by technology, moving the mythical figure into the realm of SF. Tajirika has not been magically transformed into an ogre; rather, the vernacular figure functions as a heuristic device for understanding a physical transformation made possible by speculative technologies. To borrow a felicitous term from MacDonald, Tajirika is not simply an ogre, but a "cybogre."[36] As with the organ transplants in *Life and a Half*, Tajirika's transformation points to the quick adaptation of technology—presented as Western, for in both cases American and European doctors perform the procedures—to the purposes of the dictator and those who would replace him. But in so doing, the characters also transform those technologies, imbuing them with new forms of strangeness and generating new "nova," in a way that links these novels with the larger, speculative project of Afrofuturism. By invoking such speculative technologies, these novels situate the very idea of technology itself within the larger social and political frameworks in which it is developed and put to use.

Crucially, engagement with technology and outer space in *Wizard of the Crow* is not limited to the authoritarian state. A key site in the novel is the Mars Café. Its owner is a space enthusiast who has dedicated the café to the celebration of space exploration, changing its name from Sputnik, to Vostok, to International Space Station Café, and so on, to reflect the times. His favorite name, however, was "Moonapollo":

> [B]ecause it not only alluded to a Greek deity but also rhymed with Marco Polo, who had sojourned to the Orient, where space voyages were first imagined in folklore. He [Gautama] often cited, as proof of the Asian origin of the space race, ancient Chinese astronomers who were among the first to focus on supernova.[37]

34 Ibid., 741–43.
35 Ibid., 752.
36 MacDonald, "Cybogre," 72.
37 Ngugi, *Wizard*, 107.

https://doi.org/10.1017/pli.2016.14 Published online by Cambridge University Press

This counter-genealogy of space exploration effectively decenters the Cold War space race, reorienting our understanding of human engagement with space by historicizing it. Another term for this reorientation is *estrangement*, in the critical sense elaborated previously. By repositioning space exploration within this larger global historical narrative, the novel disrupts received ideas about the actors and elements constitutive of so-called modernity. More importantly, this moment makes visible the malleability of historical narrative, itself always also subject to historical forces. This is, then, an instance of speculative history, not because it "imagines" an alternate historical narrative but because, in providing a disruptive corrective to received ideas about the vanguard of space exploration, it calls for critical reflection on history itself as narrative.

What if . . . ? The Afronaut as Crisis of Possibility

Like Ngugi's invocation of "the Asian origin of the space race" in *Wizard of the Crow*, the figure of the Afronaut is a countervailing force to established narratives of space exploration and the technological vanguard. Cristina de Middel's *The Afronauts* and Frances Bodomo's *Afronauts* each take up the figure of the African astronaut in order to disrupt these established narratives and, on a larger scale, to prompt critical reflection on Africa's place in the world system. Their respective projects suggest that Africa, long relegated to or treated as periphery, may in fact be the place from which to most clearly understand our present and its possible futures.

De Middel and Bodomo's projects share a common point of origin, Edward Makuka Nkoloso's attempt to start a space program in Zambia in the early 1960s. The story goes like this: In the lead up to Zambia's independence in 1964 Nkoloso, a schoolteacher, founded the Zambia National Academy of Science, Space Research, and Philosophy. His goal was to launch a moon mission and thereby to beat both the United States and the USSR in the space race. Working on the outskirts of Lusaka, Nkoloso began building a craft and training a group of astronauts. At the center of this group was a teenage girl, Matha Mwambwa, whom he planned to send to the moon with two cats. Because of difficulties securing funding, and because Matha became pregnant, the project failed.

The story of Nkoloso's Space Academy hovers between recorded fact and fiction. His efforts received some coverage at the time, including a mention in *TIME* magazine. There is also newsreel footage of the trainee astronauts in action and an editorial written by Nkoloso seeking financial support.[38] The story resurfaced as a historical curiosity in the early 2000s. It was the subject of a 2010 article on the website of the *Atlantic*, and this was followed by a proliferation of articles, YouTube videos, and other materials on the Internet.[39] Both because of its place in time (the height of

38 The *TIME* magazine piece was titled "Zambia: Tomorrow the Moon." The footage of Nkoloso's training camp, which forms the basis for several other videos about the project, can be found online in the ITN Source archive, under the title "Zambia: Zambian Astronauts Train for Moon Trip—Interview with Space Academy Director." The Nkoloso editorial, which seeks funds for a mission to Mars rather than the moon, is included in de Middel's book and viewable online at: http://www.theglobaltrip.com/images/blogs/tgt2/DSC00988marsprogramV.shtml.

39 Erik R. Trinidad wrote about Nkoloso's project on his blog, *The Global Trip*, in April 2004. In October 2010, Alexis C. Madrigal picked up the story for the *Atlantic*'s "Old, Weird Tech" column.

https://doi.org/10.1017/pli.2016.14 Published online by Cambridge University Press

the Cold War space race and of decolonization on the African continent) and because of its object (travel to the moon as a long-standing trope of SF) Nkoloso's Space Academy has proven rich material; de Middel and Bodomo have received grants, prizes, and positive reviews for their respective Afronauts projects.[40]

Following the tradition of SF as a tool for social critique, de Middel and Bodomo reimagine the contours of the Nkoloso story, framing Nkoloso and his Space Academy as "shadows" (in Ferguson's sense of the term) for the Cold War space race. By extension, each also positions Zambia (as synecdoche for the continent at large) as a "shadow" to the principle of the sovereign state. Here, again, technological capacity functions as metonymy for the viability of the nation-state. Finally, both de Middel and Bodomo posit the success of Nkoloso's mission, implying that his Afronauts did indeed reach the moon. Although in both cases this is only suggestion, this deviation from the history is an instance of, to borrow a phrase from Raymond Williams, the "crisis of possibility" characteristic of SF. The suggestion that Nkoloso's Afronauts might have succeeded in their moon mission is a critical disruption that opens toward new forms of utopian thinking.

Initially exhibited as individual prints and later collected as a book, de Middel's *The Afronauts* is both colorful and playful. The photographs alternate between landscapes, detail shots (for instance: a hand holding a fictional flag, an elephant's trunk), and portraits of individual Afronauts. The latter are set against dilapidated backgrounds, with the (male) models dressed in improvised space suits made from bold, "African" fabrics.[41] It is an attractive vision of cultural syncretism that suggests a localized "making do." But it also suggests imitation without real comprehension: these suits would not function in space; they merely mimic the proper equipment. The use of ruins and overgrown landscapes as backdrops, moreover, suggests that this is not the space of modernity, certainly not a modernity that has succeeded in establishing and maintaining itself. Instead, the viewer is shown the ruins of an attempted modernity whose remnants have been repurposed as nostalgia for a more promising past.

The juxtaposition of the spaceman with the earthly landscape is the central mechanism by which these images operate. For instance, in one photograph, a lone Afronaut wearing a suit and a space helmet, the reflective surface of which obscures his face, stumbles out of thick vegetation. This same figure later appears in close up, this time with his face visible and his gaze fixed in the distance, the landscape partially reflected in his helmet; the image is the centerfold of the book. The effect of such compositions is confusion, estrangement, and—to the extent that some of these images are indeed comical—delight. But, as my use of the terms *unsettling* and *estrangement* suggests, these images are not meant to be merely pleasing. In contrasting the optimism of space travel with ruins and dilapidated landscapes, de

40 Among other honors, de Middel's *The Afronauts* was a finalist for the Deutsche Börse Photography Prize (2013) and received the International Center for Photography's Infinity Award for Publication. Frances Bodomo's *Afronauts* played at both Sundance (2014) and the Berlin International Film Festival (2014). In May 2015, Bodomo received a grant from the Sloan Foundation to produce a feature-length version of the short.

41 Although de Middel has done much work in Africa, the images for this collection were largely shot on the outskirts of Alicante, Spain; the costumes were sewn by her grandmother (Seymour, 2016, n.p.).

https://doi.org/10.1017/pli.2016.14 Published online by Cambridge University Press

Middel's images repeatedly draw the viewer's attention to the failed promises of independence.

Building on the individual prints, the book constructs a larger narrative by interpolating documents and diagrams. The reader-viewer is presented with internal documents from Zambia's Ministry of Technology (invented), the editorial by Nkoloso (apparently real), and a closing letter explaining that the Zambian government never took seriously Nkoloso's efforts and that the project died a "natural death."[42] It also includes several clearly altered photographs, such as an image of a spaceship flying over an African landscape, another of a group of Afronauts walking through a village, and a black-and-white photograph of a dancing couple on whom space helmets have been superimposed.[43]

At the center of the book, the centerfold portrait of the Afronaut opens up to reveal, on one side, an aerial view of a desolate landscape, in which can be seen a rocket ready to launch. On the other is a map titled "Lusaka 1964." The map, whose English toponyms attest to the recent colonial presence, is also modified: the streets in the top left are shaped into the outline of a rocket, mirroring the photograph.[44] This diptych at once suggests a correspondence between the thing and its representation and calls the viewer's attention to the problem of falsification, fraud, and the doctored image. But the relationship between Africa and (possible or impossible) technological modernity remains unclear.

Unlike the rich color of de Middel's work, Bodomo's *Afronauts* is shot in black and white.[45] At the center of the film is Matha, the woman Nkoloso planned to send into space. The action in Bodomo's film has been moved from 1964 to 1969, heightening the narrative tension as Nkoloso and his team race against the US launch of Apollo 11. As in de Middel's photographs, the equipment with which Nkoloso and his Afronauts are working is makeshift and in visible disrepair. The landscape is scattered with debris and broken or otherwise ruined objects. Shots of the littered landscape are juxtaposed with scenes of the Afronauts' communal activities. This is a community of men from which Matha stands apart. She is shot looking at the moon, sleeping in the rocket, and spending time with her single companion, a one-eyed cat. In the celebration that precedes the launch, Nkoloso takes Matha aside and instructs her on what to do when she arrives on the moon. He says, "Tell the exiles we are coming" and "Do not impose Christianity or the nation-state."

In Nkoloso's instructions there is a flash of the utopian thinking and attendant critique associated with SF, postcolonial SF, and Afrofuturism in particular. What Bodomo's version of Nkoloso posits here is a different mode of contact, one that

42 Cristina de Middel, *The Afronauts* (Madrid: Self-published, 2012), n.p.

43 The source material for this composition is one of Malick Sidibe's photographs of young Malians dancing The Twist in the early 1960s. The background of the original image has been flattened, slightly altering the perspective, and space helmets have been pasted over the dancers' faces.

44 Images of the centerfold portrait, aerial photograph, and map can be found on de Middel's website: http://www.lademiddel.com/thisbookistrue/?product=the-afronauts. Video of the book's contents can also be viewed online: https://vimeo.com/54568373.

45 Asked about her project and de Middel's, Bodomo replied: "Her goal was to show another side of Africa, so she chose these sort of candy-colored, sweet pop-images; she created this sort of wonderland to tell the story. Which I love, actually. We were thinking more about the alternative history aspect of it. We shot in black and white, it's grainy, and we really follow Matha the space-girl" (Bradshaw, 2013, n.p.).

does not reproduce the physical and epistemic violence of the past. This vision is in contrast to other more competitive claims to space, as well as to the history of European colonialism and empire. Once again, space is the place of speculative possibility in which new forms of solidarity and social organization are possible. The climax of the film is the launch, where the rocket explodes into flames. After a moment of confusion and chaos, Nkoloso declares, "Matha is gone . . . to the moon!"

On first view, de Middel and Bodomo's Afronaut projects seem remarkable for the ambivalence with which they address questions of Africa's relationship to technology. On one hand, to speak of technology and technological innovation is to speak of a future to come. On the other, their representations of technology in Africa are untimely and asynchronous; they depend on the romance of impossibility, which is emphasized through the juxtaposition of novel, improvised technologies with ruins and dilapidation. The imagined future in these images is already the ruined present. This perspective risks falling, once again, in line with ideas of Africa, which oppose it to civilization, modernity, or development. But this is only a very cursory reading. In juxtaposing the utopian hopes of a prior moment (both of space exploration and of decolonization) with its failure (as signaled by the ubiquity of ruins and dilapidation), these projects in fact offer a reflection on Africa's place in the world.

To elaborate this point, I will situate de Middel and Bodomo's versions of the Nkoloso story in dialogue with the original mention in *TIME* magazine. The *TIME* reference to Nkosolo is made in the context of a short column on the celebration of Zambia's independence, published in October 1964. Contrasting Zambia and its new president, Kenneth Kaunda, to other new African states and their leaders, the article posits that Zambia's future looks "comparatively bright."[46] At the same time, the (unnamed) author expresses some concern about the country, and Kaunda's, alignment in the Cold War. The final paragraph reads:

> During the independence festivities only one noted Zambian failed to share in all the harmony. He is Edward Mukuka [*sic*] Nkoloso, a grade-school science teacher and the director of Zambia's National Academy of Science, Space Research, and Philosophy, who claimed the goings-on interfered with his space program to beat the U.S. and the Soviet Union to the moon. Already Nkoloso is training twelve Zambian astronauts, including a curvaceous 16-year-old girl, by spinning them around a tree in an oil drum and teaching them to walk on their hands, "the only way humans can walk on the moon."[47]

Nkoloso here functions as an unseemly double for Kaunda, himself a former schoolteacher, as the article notes. As the possibly crazed charismatic leader of a cargo cult or at the very least a colorful conman, Nkoloso represents a "comparatively dark" possible future for the newly independent Zambia.

That this is the close of the article signals a larger skepticism on the part of *TIME* (its editors and readers) about Zambia's ability to effectively transition into independence. This attitude toward Zambia in turn anticipates contemporary treatment of African nation-states, which is so often—to paraphrase Ferguson—relentlessly

46 n.a., "Zambia: Tomorrow the Moon," *TIME* magazine, October 30, 1964, 43.
47 Ibid., 44.

https://doi.org/10.1017/pli.2016.14 Published online by Cambridge University Press

negative.[48] The implication is not only that the United States should be worried about the political and ideological alignment of new states such as Zambia, but that these new states are not quite "states" in the sense embodied and enjoyed by the United States. They are "copies," lesser versions, of questionable viability.

Once again, however, the term *copy* is insufficient. The anxiety here is not just that Zambia will imperfectly reproduce the political form of the nation-state, but that in doing so it might make visible the internal contradictions and discontinuities of that form. This is what Homi Bhabha has in mind when he describes colonial mimicry as "at once resemblance and menace."[49] As Bhabha explains, "The *menace* of mimicry is its *double* vision which in disclosing the ambivalence of colonial discourse [almost the same, *but not quite*] also disrupts its authority."[50] Taking up Bhabha's argument with reference to what he calls a "transnational, postcolonial age," Ferguson further argues that mimicry does not just function as parody but also as a claim to solidarity, or membership, in the global order.[51] In seeking to be the same (if not quite), there is also the assertion of the right to more equitably participate in and benefit from the flows of globalization, even as these are unevenly distributed in the world system. But if, as Ferguson recognizes in "Of Mimicry and Membership," for Africans the nation-state is no longer an adequate object of appeal or redress, one cannot simply project this current state of affairs back onto the moment of independence.[52] Current failures must be historicized rather than project backward. In their respective projects, de Middel and Bodomo are similarly engaged in a delicate balancing of past and present.

The year 1964 (and even early 1969) was one of the final moments in which the prospect of a moon mission was largely hypothetical: when it was a *novum* in the simplest sense of Suvin's term. If the moon mission was at this point in time on the verge of passing from SF trope into reality, both de Middel and Bodomo maintain the "newness" of the novum by suggesting that Nkoloso's Afronauts succeeded—a radical act of speculation. Their effective recalibration of the novum relies, as argued previously in this essay, on the assumption impossibility of a successful African moon mission, in the past as well as present. But it is precisely this perceived impossibility that makes the notion of success thrilling. In their respective Afronaut stories, de Middel and Bodomo effectively transform the assumption of Africa's technological backwardness into what Williams calls the "crisis of possibility" characteristic of SF.

In both cases, success is not the product of some strange, new ("speculative") technology; rather, it is achieved with the very makeshift, tattered, and improvised technologies I previously described as "nostalgic." Technology need not be "futuristic" to point toward a different future. The technology in Bodomo's film, for instance, is patched together, but it works. Technological innovation is therefore removed from the confines of laboratories and put—to paraphrase Bodomo herself—in the shanty-town, allowing those usually excluded from the narrative of technological progress

48 Ferguson, *Global Shadows*, 8.
49 Homi K. Bhabha, "Of Mimicry and Man," *The Location of Culture* (New York: Routledge, 2004), 123.
50 Ibid., 126.
51 James Ferguson, "Of Mimicry and Membership," *Cultural Anthropology* 17.4 (2002): 558 and 561, accessed November 12, 2015.
52 Ibid., 564.

access to it.[53] In giving Nkoloso access to the grand narrative of technological development, both Bodomo and de Middel destabilize its organizing assumptions, opening the question of what alternative futures might be possible (the "what if . . . ?").[54] Such speculations are at the very heart of the critical function of SF and are the place where anticolonial and science-fictional ways of thinking overlap. This speculative potential is emphasized by the closing shots of the film. Matha is shot from behind and below, emphasizing her stature. In the bottom left of the screen, the sun has begun to rise. Matha here gazes into a future whose possibilities are wide open.

In de Middel's book, meanwhile, the alternate ending is presented in the form of a black-and-white doctored image: four Afronauts joyously leaping above the moon's surface. This image of victory is the visual climax of the collection, although not its conclusion. After this image comes the letter announcing the "natural death" of Nkoloso's project, and then a photograph of a young man (a technician) sitting at a control bank, eyes closed, as if dreaming. This ordering suggests that the (admitted) failure of the project matters less than the imaginative impulse at its origin. The future, therefore, is not the ruined past but the space for invention and innovation, as reflected in the prevalence of composed or doctored images in de Middel's book.

The recurrence of these doctored images is important: in repeatedly drawing our attention to the manufacture of fantastic images, these compositions expose the making-strange of the novum. It is the absurdity of the conceit of, for instance, a couple wearing space helmets to dance that is the central motor of estrangement here. This initial shock is followed by a realization of the mechanism by which the image is composed (cut and paste). Yet, in order to understand the first, the reader must proceed to the second. In this sense, de Middel's doctored images are a visual instantiation of the processes of alienation, intended (with Suvin and Brecht in mind) to bring about de-alienation (an alienation-to-de-alienation effect).

Put another way, these images in *The Afronauts* are examples of what I have called *speculative history*. In drawing the viewer's attention to the process of composition, de Middel's doctored photographs not only provide an alternate historical narrative, but an alternate narrative that reflects upon history itself as narrative: the result of a process of composition that is ruled by its own tropes and conventions, all of which are historically specific and must therefore be historically situated. Even as de Middel and Bodomo's Afronauts narratives traffic in the trope of Africa's asynchronous relationship to (technological) modernity, it is in the SF of their narratives—the arrival on the moon, for instance—that the critical potential of these projects resides. Both are a celebration of imaginative and utopian thinking.

Some clarification is necessary here, not least because of critical divergence on the relationship between SF and utopian fiction. Suvin, for instance, positioned utopian fiction as a "sociopolitical subgenre" of SF.[55] Williams, however, maintains a more careful distance between utopian and science fiction, calling SF a "cousin" to phases of

53 Kate Patterson, "Meet the Filmmaker: Frances Bodomo," *Sloan Science & Film* (blog), May 6, 2015, accessed April 5, 2016.

54 Shonna Keogan, "'Afronauts' Feature Film Poised for Lift-Off, Thanks to Sloan Grant," *NYU News* (blog), May 8, 2015, accessed January 25, 2016, n.p.

55 Suvin, *Metamorphoses*, 61.

https://doi.org/10.1017/pli.2016.14 Published online by Cambridge University Press

the utopian.[56] At different points, and in different versions, SF and utopian fiction have much in common, but the two are not always the same thing. What SF and utopian fiction share is precisely that "crisis of possibility," which makes possible the disruption of existing systems. It is here that Jameson locates the need for utopian narratives at the start of the twenty-first century: a time in which capitalism has defeated its (apparent) alternatives and neoliberal globalization is hegemonic.[57]

In *Archaeologies of the Future*, Jameson takes as his starting point Suvin's identification of utopian fiction as a subgenre of SF. He is, however, interested less in utopia as what he calls a "blueprint" than as a process.[58] As he writes:

> For it is the very principle of the radical break as such, its possibility, which is reinforced by the Utopian form, which insists that its radical difference is possible and that a break is necessary. The Utopian form itself is the answer to the universal ideological conviction that no alternative is possible, that there is no alternative to the system. *But it asserts this by forcing us to think of the break itself, and not by offering a more traditional picture of what things would be like after the break.*[59] (Emphasis mine.)

De Middel and Bodomo's reimaginings of the Nkoloso story are precisely engaged in this kind of disruption. They poke holes in the dominant narrative by *repeatedly* positing the question "what if . . . ?" rather than proceeding to a prescription for a better, alternate future. The break, de Middel and Bodomo insist, is necessary, even if it is not clear what will come after.

In closing, and again following Jameson in *Archaeologies of the Future*, the recent history of post–Cold War global transformation is the background for de Middel and Bodomo's projects, as well as Olukotun's *Nigerians in Space*; all three are organized around invocation of the Cold War space race. For the majority of the African continent, the grand narrative of the post–World War II period was that of the transition from the promises of national independence and self-determination to the disillusionment of those promises in the Postcolony (see Mbembe). By the turn of the twenty-first century, there was also a general loss of faith in the promises of development as a master narrative (see Ferguson). The complete integration of the world market that followed the end of the Cold War, as the apotheosis of neoliberal globalization, has had particularly negative effects on the economies of African countries.

By looking back to this prior historical moment, de Middel, Bodomo, and Olukotun offer a critical look at the present, one in which the sovereignty and technological autonomy of African nation-states remains at issue, offering a break that points toward (many) possible futures. Just as the spectacular moon missions of the space race are no longer possible, neither is the kind of national autonomy imagined (desired) at the moment of independence on the African continent, if it ever was. In an era of increasingly inescapable global interconnection, these works suggest, new forms of political organization must be sought.

56 Williams, "Utopia," 209.
57 Jameson, *Archaeologies*, xii.
58 Ibid., 217.
59 Ibid., 231–32.

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