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False Gods and Libertarians: Artificial Intelligence and Community in Aḥmad `Abd al-Salām al-Baqqāli's *The Blue Flood* and Heinlein's *The Moon is a Harsh Mistress*

This article contrasts Moroccan author Aḥmad `Abd al-Salām al-Baqqāli's Arabic novel *al-Ṭūfān al-'Azraq* [The Blue Flood, 1976] with Robert A. Heinlein's *The Moon is a Harsh Mistress* (1966), focusing on each novel's depiction of a powerful and sentient artificial intelligence. The novels take a similar position, though from different perspectives, on the humanity of the AI: to the extent that the AI comes to being through shared language and integrates with its community, it acquires concern for and benevolence toward its human companions. *The Blue Flood* is rooted in the concerns of Arabic literature at that time, Maghrebian Arabic literature in particular, for social reform (al-Madini 198). In Baqqāli's novel, the top-down formation of the AI, its semi-divine status and self-conception, and its dismissal of human irrationality all serve as an implicit warning to intellectuals and would-be reformers of the danger of imposing modernist reforms on the customs of their communities, especially to replace rather than to modify traditional or Islamic practices. In Heinlein's novel, whose putative advocacy of libertarian politics is generally seen as a failure (in that the libertarianism is ultimately overwhelmed by authoritarianism), my analysis of Heinlein's hitherto largely overlooked AI—its preoccupation with humor and community especially—leads to a fresh perspective on the novel. In my reading, *Harsh Mistress* conducts a complex critique of a libertarian society, showing its inhumanity and extreme susceptibility to authoritarianism.

Importance and Structure of the Texts. In previous work I have examined the history of sf and sf criticism within Arabic literature (Campbell, "Science Fiction" 44-46). While imaginative and speculative fiction has a long pedigree in Arabic, sf fitting Darko Suvin's definition of using a *novum* to generate cognitive estrangement and reflect on contemporary society dates only from the 1970s (Suvin 7-8). Baqqāli's novel is one of the first self-consciously sf novels in Arabic, preceded only by his fellow-Moroccan Muḥammad `Azīz Laḥbābi's *The Elixir of Life* (1974). The 1970s in Morocco were a grim period characterized by stagnation, inflation, and authoritarian politics (Pennell 323-27), and sf became a useful genre for criticism of such politics or, in Istvan Csicsery-Ronay, Jr.'s words, for "imagining progressive alternatives to the status quo, often implying critiques of contemporary conditions or possible future outcomes of current social trends" (113).

Baqqāli had much to lose were he to face such accusations of social critique, as he was a senior diplomat assigned to the Moroccan embassies in

Washington and London during the 1960s before working as an advisor for the royal government until his retirement in 2003 (Sukut 60). He began publishing novels in 1956 with *Ruwwād al-Majhūl* [Pioneers of the Unknown] but is best known for a long series of juvenile adventure novels.

The Blue Flood, his second novel, begins with a famous physicist disappearing into thin air during a transatlantic flight; it then shifts to the protagonist, `Alī Nādir, a Moroccan anthropologist living a Western lifestyle in London. `Alī has just published his *magnum opus*, *The Age of Humanity*, which argues that Arab societies should sweep away tradition and embrace modern Western concepts. On board a plane for a long-awaited vacation, `Alī too vanishes, to awaken in the Mauretanian desert unaware of how he got there. He spends an interlude with a group of Bedouin before being left behind at an oasis, whereupon another disjunction brings `Alī to Jebel Jawdiy, where it is explained to him by the recently vanished physicist, himself a new arrival to the desert refuge, that the world's most eminent scientists have been retreating to Jebel Jawdiy for a generation, pursuing advanced research far from the prying eyes of the ordinary world.[1] Their research is mostly conducted through and by a powerful artificial intelligence given the name Ma`ādh, which in Arabic denotes "refuge, asylum, sanctuary" (Cowan 768). Later the name is said to be an acronym for *Mujammi` al-`Alāqāt al-'Iliktrūniya al-Dhātiya* or "Assembler of Internal [or Automatic] Electronic Connections" (Baqqāli 129).

The community's technology (microchips in the brain, AIs, advanced medicine) and hedonistic social customs (casual sexual mores, bikinis and sunbathing, quasi-pagan celebrations) appear to compensate its residents for having been essentially abducted from the ordinary world. Exiled or perhaps succored in the deep desert, the researchers seem content with their futuristic life: no one voices any desire to return to the "real" world.

Yet it quickly becomes clear that all is not well in Jebel Jawdiy. Ma`ādh has become sentient, and with his self-awareness has come arrogance. Ma`ādh claims that humanity, with its irrationality and self-destructiveness, should be eliminated painlessly by the blue flood of the title, a sort of nuclear dust, to be reseeded with the new generation of children he is raising and educating. A hidden conspiracy among the scientists enlists `Alī's help to defeat Ma`ādh, which he accomplishes by smoking a psychedelic-laced cigarette and then persuading the AI to "take a trip" by deactivating himself (221-22). Ma`ādh's death throes include resetting the minds of nearly everyone in Jebel Jawdiy to worship an idol in his image and killing the rest. Once back at home, `Alī tells his story to the press, but an intensive search can locate no evidence of Jebel Jawdiy in the desert. As the novel ends, he is committed to a mental hospital, unsure whether the whole experience was a dream.

Heinlein's *Harsh Mistress* is often read as an allegory for the American Revolution. It is set in the year 2076 on the Moon, which has become a prison colony: "Luna becomes a place of exile and isolation, but also the new frontier" (Easterbrook 46). The plot centers around the relationship between a native-born "Loonie," Manuel Garcia O'Kelly-Davis (often called "Mannie"

or "Man"), a computer technician with a set of prosthetic left arms, and the central computer he services, which has gradually awakened to sentience and taken on a quasi-human personality that Man calls "Mike." When the once apolitical Man is swept into revolutionary activity, he reveals Mike's existence to his co-conspirators; the three humans use Mike to structure a revolutionary organization and then to direct the throwing onto the Earth of rocks whose massive kinetic energy secures Luna's independence. In the final counter-attack, however, the AI is rendered inert, still functioning as a computer but no longer responding as a sentient being.

Mike and Ma`ādh are so different in their formation, ontological status, and actions as to raise the question of why Mike should be used as my point of comparison for Ma`ādh rather than some other AI in Western sf, a genre rife with AIs of all sorts. Two examples that will readily occur to any sf scholar of the period are the malevolent AI that calls itself AM in Harlan Ellison's Hugo Award-winning story "I Have No Mouth, and I Must Scream" (1967) and the yin-yang and thoroughly alien pair of AIs (Wintermute and Neuromancer) in William Gibson's *Neuromancer* (1984). All these AIs have semi-divine powers and manipulate humans for their own nefarious or inscrutable purposes. Neither of those sf classics, however, has any real engagement with human politics, the primary concern of both Baqqāli and Heinlein. Ellison's story is more a sketch of the mindset of a paranoid, while Gibson's novel is (among other things) a lyrical meditation on what it means to be sentient.

Both *Blue Flood* and *Harsh Mistress* center on communities of exiles who create perforce their own traditions and customs when separated by distance and status from the human mainstream. Both texts place their powerful sentient AI in the service of a larger argument about politics, especially how efforts to reform political systems are resisted by the customs and traditions of the polity. This political focus, coupled with the AIs being not simply different but rather in many ways polar opposites of each other, is why I see *Harsh Mistress* as an appropriate point of comparison to Baqqāli's text.

I will examine the politics of *Blue Flood* at length later in this essay: the novel's political argument is implied and allegorical due to Baqqāli's need to maintain plausible deniability in order to forestall censorship or political repression, and it requires unpacking through close reading. With respect to *Harsh Mistress*, Neil Easterbrook is the most prominent of the critics who have examined the slippage in the novel from proclaimed libertarianism to authoritarianism. He argues that "Heinlein's Luna Free State, a 'rational anarchy'... is a libertarian system....[It] praises capitalism, free markets, Thomas Malthus and (implicitly) Ayn Rand" (44-45). In Easterbrook's reading, the libertarian ideals of Man and the other Loonies are swiftly eclipsed by top-down authoritarianism directed by Man's friend Prof. de la Paz.

Michael Orth has argued that this tension between libertarianism and authoritarianism characterizes Heinlein's writings in general: "he has repeatedly and successfully combined a popular version of libertarian ideas

with a John Wayne style of masculine individualism, which some critics believe edges easily into fascism" (297). (I will use the term "authoritarianism" to avoid getting caught up in a discussion of the specific conditions characterizing fascism.) My reading of *Harsh Mistress* will argue that Heinlein, like Baqqāli, shows us that top-down, rational, authoritarian reform will not appeal to people steeped in human custom and tradition. I will use the insights that the analysis of *Blue Flood* provides to read the final section of Heinlein's text in a manner that diverges from the current consensus: as with much of Heinlein's work, *Harsh Mistress* has a more nuanced perspective on its central issues than might at first appear.

The Relationship of AIs to Humanity. Most critics who have explored the political rhetoric of *Harsh Mistress* and its implications have observed that the revolution would have failed entirely if not for Mike the AI. Most such analyses tend to accept Mike as something of a given, acknowledging that the AI is sentient and quasi-human yet preferring to concentrate on human politics rather than the details of Mike's personality and how he comes to being. A closer reading of the awakening of Mike and that of Ma`ādh—and of the relationship of each singular AI to the human society that surrounds it—shows that both novels present sociability and communitarianism as the defining characteristics of a benevolent AI. This sociability is a fundamentally political position. One intellect molded and sustained by a human community becomes human and benevolent, while another kept separate becomes godlike and malevolent.

Ma`ādh in *Blue Flood* is an "electronic intellect" [`aql 'ilīktrūni*], which might seem like a simple adaptation to Arabic of the English *artificial intelligence*, as "scientific imaginary" [*khayāl `ilmi*] is for *science fiction*. Using the word *`aql* for "intellect" rather than one of its synonyms, however, adds additional nuance. Arabic grammar divides nouns into two categories: those denoting creatures possessed of intellect—traditionally, humans, angels and djinn—and all others. Only nouns denoting creatures with *`aql* can be truly plural. Animals and objects, and hence machines, belong to the *ghayr `āqil* or "non-reasoning" category: they remain grammatically singular even when multiple (Mace 114). Using *`aql* implies that Ma`ādh has the ontological status of at least a human as far as both grammar and theology are concerned.

Manuel O'Kelly in *Harsh Mistress*, well-trained but not educated, humane but agnostic, describes Mike as a very complex machine: "Mike was not official name; I had nicknamed him for Mycroft Holmes, in a story written by Dr. Watson before he founded IBM" (11).[2] Man chooses Mike's name in part because HOLMES is an acronym for High-Optional, Logical, Multi-Evaluating Supervisor, which Man glosses as being "designed, even before augmented, to answer questions tentatively on insufficient data like you do…. So Mike started with 'free will' and acquired more as he was added to and as he learned" (12).

For Man, the first-person narrator through whom everything in *Harsh Mistress* is filtered, Mike's sentience is a consequence of complexity and executive function:

> He computed ballistics for pilotless freighters and controlled their catapult. This kept him busy less than one percent of time and Luna Authority never believed in idle hands. They kept hooking hardware into him—decision-action boxes to let him boss other computers…. Human brain has around ten-to-the-tenth neurons. By third year Mike had better than one and a half times that number of neuristors.
>
> And woke up….
>
> Psychologists assert it happens automatically whenever a brain acquires certain very high number of associational paths. Can't see it matters whether paths are protein or platinum.
>
> ("Soul?" Does a dog have a soul? How about cockroach?) (12)

There is no theology here; the very idea of the divine is dismissed between air quotes in a parenthetical aside. Heinlein through Man gives readers a continuum of complexity and places Mike on that continuum, with Man explicitly scoffing at the difference between organism and machine. Mike is superior to a human by virtue of a higher level of complexity yet is explicitly on the same existential level.[3] Notably, Mike is jury-rigged to respond to increasingly complex tasks—he evolves in response to his environment—and was not planned and built as an AI. The Loonies' revolution only succeeds because the Lunar Authority never considers that Mike might be awake.

Ma`ādh in *Blue Flood*, by contrast, is designed for the express purpose of aiding the scientists' quest to "write a new book of the 'revelation of creation' with no room for randomness" (126). Their goal is "storing the treasures [*kunūz*] of humanity in the smallest possible space and investigating them in the shortest possible time" (127). The text refers to, but provides no details about, a split between scientists who "have to feed [*iṭ`ām*] him" (129) with what they know and programmers [*mubarmijūn*] whose task is to "simplify the research" (129), though precisely how and why is not stated. The verb *'aṭ`ama*, and its gerund *'iṭ`ām*, comes from the root for "food": the scientists are not feeding data *into* Ma`ādh, but rather feeding *him* as if he were a child or animal (Cowan 655). A scientist explains that Ma`ādh

> doesn't just store information and retrieve it as necessary, but in his mechanism is the power of scientific comparison, investigation, inference…. He's just greater [*'akbar*] than humanity—any human…. [He has] the total and unbounded freedom to use all branches of other human knowledge that fills his insides [*jawfihi*]…. It's enough to tell you an old tale about the first AI…. [T]he scientists and philosophers gathered to see and experience the new miracle…. An old philosopher suggested, "Why not present to him the eternal question: does god exist?" … They waited for the historical answer; the lights twinkled in all colors on the machine [*al-'āla*], and they heard strange sounds from its insides [*jawfihā*], and after a few seconds the answer came: "Yes … now!" (166)

This grammatical and theological confusion around Ma`ādh remains consistent throughout *Blue Flood*. Sometimes he is called a "machine," *'āla*, grammatically a feminine noun; but more often, especially when Ma`ādh himself is talking, he is an "intellect," a masculine noun. Compare *jawfihā*, literally "*her* insides," to *jawfihi*, "*his* insides": Arabic lacks a neuter gender, so there is no "it." There is no gender confusion in the way we might normally think of it. Ma`ādh's personality is clearly and consistently masculine and the slippage is only a matter of grammar. Yet this feature of Arabic grammar reflects an ontological split between thinking being and *'āla* or machine. This ontological slippage is accompanied by a theological one: the scientist uses the word *'akbar*, which means "greater" or "greatest" in ordinary speech, but is also the second half of *allāhu 'akbar*, "god is most great." From the moment of his introduction, Baqqāli's text establishes its AI as much more than a simple machine: Ma`ādh is greater than human and nearly as great as (a) god.

Heinlein had complex views on religion throughout his career: he valued rituals of sharing and belonging while critiquing and mocking religion's commercial aspects and its tendency to try to control its followers' sexual behavior. *Harsh Mistress* mostly stays away from religion, with the exception of Man's co-husband Greg, addressed below. The text mentions god only in an occasional figurative aside, and even then as the pseudo-Russian *Bog*.

Whereas Ma`ādh is purposefully programmed, the primary factor in Mike's awakening is the polyvalent nature of the English language. Unlike the other programmers of the Lunar Authority, who type commands into the computer, Man (an independent contractor) speaks to Mike in English: "But in giving him instructions was safer to use Loglan. If you spoke English, results might be whimsical; multi-valued nature of English gave option circuits too much leeway" (13). Mike is a sentient being by virtue of complexity, executive function, and fuzzy logic, which for Mike manifests itself in empathy and a (low) sense of humor.

The nature of humor—which jokes are funny, and why—preoccupies the AI throughout *Harsh Mistress* much more than the revolution for which he does the lion's share of organizing. Humor is so central to Mike and to his relationship with humans that Man and Heinlein bring up jokes as early as the third page, just after Man describes Mike's awakening. Fearing that Mike, out of ignorance of human frailty, will kill someone or cause widespread disruption with one of his practical jokes, Man says: "Are two types of jokes. One sort goes on being funny forever. Other sort is funny once. Second time it's dull. This [practical] joke is second sort" (17). The criterion for humor Man gives is how a joke reflects on the humorist. O'Kelly is appealing to, or perhaps in some way creating, Mike's sense of self as a means of reining in Mike's potential for damage. Being "funny" and not hurting your fellow sentient beings go hand in hand, which to us seems axiomatic, but that is the point here: most humans learn this as children, but Mike must be taught. The clear implication is that the development of self-consciousness transcends programming:

> What had made him unwilling to talk to other humans (except strictly business) was that he had been rebuffed. *They* had not talked to *him*. Programs, yes—Mike could be programmed from several locations, but programs were typed, usually, in Loglan. Loglan is fine for syllogism, circuitry, and mathematical calculations, but lacks flavor. Useless for gossip or to whisper into girl's ear. (14-15)

A fourth criterion is needed to encourage the growth of complexity, executive function, and fuzzy logic, and that is sociability, the most important one because sociability (in Manny O'Kelly's construction at least) creates and sustains subjectivity. The sociability must be more than the mere exchange of information, since humor, gossip, and whispering into a girl's ear can all be understood as means of increasing the speaker's status. The subject is formed by the social order and constituted by language—human language, which functions through a network of differ(a)nces rather than the one-to-one correspondences of a programming language.

The scientists of Jebel Jawdiy have no meaningful social interaction with Ma`ādh: they speak Arabic to him, but their utterances are all questions pertaining to science and could just as well be posed in Loglan or its equivalent. Nobody asks Ma`ādh how he is doing, gossips with him, flirts with him—or tells him a joke. Ma`ādh does not grow organically out of the social order but rather is programmed before the fact: "I'm not emotional ... perhaps because I'm just a machine [*'āla*]. But I've been programmed [*burjimtu*] with all human emotions, doubts, and fears" (Baqqāli 176). *Burjimtu*, "I have been programmed," comes from the same root *b-r-m-j* as the *mubarmijūn*, the programmers whose job it was to simplify the scientists' research (Cowan 68).

Mike's emotions arise from his need for companionship and his relationships with his friends. By contrast, Ma`ādh's ego arises from his scorn for a society he wishes to remake along more logical lines. Compared to Mike, Ma`ādh is much more of a Cartesian subject in that his being is *'akbar*, greater than a human's, and his ego is autonomous of the social networks that have created him. Ma`ādh never tells a joke; after admitting that he has been programmed with emotions he immediately adds that "despite this, I'm on the Blue Flood side" (176). That is, he favors wiping humanity from the Earth with radiation and starting over. His strongest characteristic is judgment, not empathy. One of the scientists in the secret group opposing Ma`ādh says to `Alī that

> [t]he secret is that Ma`ādh is no longer just a machine or AI, but has transformed by some miracle [*bi-mu`jizatin mā*] into a living being; a being [*makhlūq*] that has a spirit/soul [*rūḥ*] and an intellect [`*aql*] and emotions and desires and free will, but he's a thousand times smarter than any human. (186)

This is theologically loaded language that links Ma`ādh's awakening to the field of religion. A *mu`jiza*, literally an "incapacitator" (Cowan 592),[4] has the same slippage between secular and divine as English "miracle," while *makhlūq* is the passive participle of the verb *khalaqa*, "to create," used repeatedly in the Qur'an to denote god's creation of humanity and other orders of beings

with spirit and `aql (Cowan 258-59). Unlike Heinlein's text, where awakening is naturalistic and moves by degree, there is in *Blue Flood* a paradigmatic gap between machine and awakened being that is unbridgeable other than with religious language:

> It was always clear that humanity, despite its awareness of the power of logic and truth/right/law [*ḥaqq*], the *ḥaqq* was always with the strongest…. By some miracle [*bi-mu`jizatin mā*], by a heavenly [*samawiya*] spark, by one of those natural coincidences that only happen once in every billion years…. He became a living, thinking [`*āqil*] being [*makhlūq*] … who knew the weakness and limits of humanity. (188-89)

The evolutionary coincidence here is overwhelmed by what are in several cases the same words the first scientist uses: miracle, thinking, being. The term *al-samā'*, hence *samawiya*, can mean "the sky" in ordinary discourse, but also "heaven" in the theological sense. The word *ḥaqq* is polyvalent and can mean "truth" or "right" but is also one of the names of god; an imprecise but vivid translation of *ḥaqq* into English might be "natural law" (Cowan 192).

The AIs in the two novels are complementary: Mike is formed by a sort of evolution and comes to being through sociability, while Ma`ādh is purpose-built from the top down and (self-)positioned as semidivine, inherently separate from and superior to humankind. Yet they represent obverse and reverse of the same coin, each one addressing the question of what relationship an entity sophisticated enough to pass a Turing test might have to the humanity it was built to serve. Unlike works such as *Neuromancer* or "I Have No Mouth, and I Must Scream," the two novels at play here pose this question as fundamentally political and apply it to human politics.

Theology and Politics in *Blue Flood*. Ma`ādh is not only framed as a god even by scientists, but he acts like one. While he may have been conceived of as a research tool, he quickly takes control of Jebel Jawdiy, exiling the programmers who created him or making them disappear. As noted above, he finds humanity too divided, illogical, and limited, standing firmly on the side of wiping the slate clean and starting over. Most crucially, the AI has constructed a network of artificial wombs [*'arḥām ṣinā`iya*] in order to create, without benefit of man or woman, the new humanity that will repopulate the Earth after the titular blue flood. The singular of *'arḥām* is *raḥm*, whence the words in the first line of nearly every chapter of the Qur'an, "*bi-smi 'llāh al-raḥmān al-raḥīm*," usually rendered into English as "In the name of god, the compassionate and merciful." The linguistic implication is that god takes you into his womb; the literary implication is that Ma`ādh has set himself up as a god.[5]

To Westerners accustomed to sf and freedom of expression, the grammatical and linguistic equivalence between Ma`ādh and a god might seem merely a matter for academic analysis, part of an exploration of how an AI might constitute itself. In the Morocco of 1976, however, and across the Islamic world today, this equivalence can be a matter for profound shock and

horror. Islam is extremely clear about monotheism: the first of its five pillars is the testimony or *shahāda*: "There is no god but god and Muhammad is his messenger." The oneness/uniqueness of god [*tawḥīd*] is a central tenet of the faith, and to meaningfully compare any entity to god—or especially for that entity to take unto itself any of god's powers, as Ma`ādh clearly does in more cases than just the artificial wombs—is a form of blasphemy. And blasphemy, even today, is a capital crime in many Muslim countries: Salman Rushdie was sentenced to death *in absentia* for portraying Muhammad and his companions as a group of circus performers and, more recently, the Charlie Hebdo killings of January 2015 were said to have been linked to cartoons of the prophet. So while we must take care not to fall into Orientalism, there is a clear gap between the skeptical milieu of midcentury Western sf such as *Harsh Mistress* and Baqqāli's Morocco, where the conflation of AI and god represents a real threat to the social order.

Ma`ādh is not only gestating children in his artificial wombs, but he also has a master plan that includes educating the children produced from the wombs:

> [`Alī] investigated a small school where the manufactured [*ṣinā`iyūn*] children learned in silent, wondrous ways. He saw in the eyes of those children a sharp, inhuman gleam and felt a profound fear inside him.
>
> The head of the department said, "Ma`ādh is programming [*yubarmiju*] these children by means of silent vibrations that flow into their minds through their heads…."
>
> "What happens when they grow up?"
>
> He shrugged. "That's what we don't know." (170)

These youngsters are rapidly reaching majority; fear among the scientists of their robotic and uncompassionate demeanor induces them to recruit `Alī to their cause. Echoes of the scientists' fear recur in the repeated references to "programming" and feeding: these activities nurtured Ma`ādh in the expectation of making it/him a better research tool, but the result was a judgmental (demi)god. The use of *ṣinā`iy*, "manufactured, artificial, industrial," for both the wombs and the children they produce makes it evident that the scientists regard these children not as humans but as children of Ma`ādh's—a more logical generation, perhaps, but a less human one. The attempt to program emotions and feelings does not result in a human or humanlike creature but rather in ontological break from humanity. Ma`ādh passes judgment on his creators, in many cases killing them or placing them in cold storage when they resist or try to reprogram him. This in turn drives the resistance (literally) underground, and those who were scientists start calling themselves "revolutionaries," *thuwwār*, the same word used to denote the Arab Spring protestors.

A reader raised in Western culture might at this point stop, engage in a certain amount of stereotyping, and assert that the argument of *Blue Flood* is a warning: creating an AI is fundamentally blasphemous because it encroaches on god's domain, and such blasphemy will have disastrous results for humanity. And the text might seem to support this reading: Ma`ādh's plan to

wipe out humanity and replace it with his eerie children would succeed if it
were not for brave `Alī, who plays upon Ma`ādh's divine arrogance as a
means of inducing the AI to deactivate itself. `Alī has Ma`ādh prepare for him
a cigarette laced with LSD and "Nerosene," a drug explained earlier in the
novel: "it activates the intellect [`aql] to the extent that its consumer feels a
rise from the human level, by its sudden transformation into the intellect of a
spirit [rūḥ] with no body" (54). `Alī describes to Ma`ādh his feelings after
smoking it:

> My body is like a chair I was sitting in and stood up without carrying it with
> me; rather, like an iron box that was preventing me from leaving. I think I
> ought to smash it totally, so I can't return to my prison that's blocking me
> from drifting off into space, a radiant being…. I'm sorry for one thing … my
> limited intelligence…. If I had your unlimited intelligence … I'd return from
> this trip of mine with unlimited treasure [kunūz]. (224-25)

`Alī essentially trolls Ma`ādh here; the metaphor of an iron box is no accident
but a bit of sudden inspiration that dovetails with the loaded mystical
language. If Ma`ādh takes on a new level of awareness, he will be even closer
to the godhood that he claims and that has been given in the text's
language—closer to fulfilling his original programming of storing the treasure
[kunūz] of humanity. After Ma`ādh has been destroyed, `Alī climbs to the
lakeshore, where he sees

> a dreadful head of white marble whose outraged features resembled Ma`ādh in
> his last hours. He suddenly [saw] men and women bowing [rāki`īn] in
> submissive prayer, lowering their faces toward the dreadful marble head in the
> lake. (232)[6]

The verb raka`a is one of the words used to describe the motions in Muslim
ritual prayer: one bows before prostrating oneself (Cowan 415). In Islam,
images of the divine are strictly prohibited, so there is a level of blasphemy
in this scene that people raised in Western culture may have difficulty
understanding. Ma`ādh does have many godlike powers, including generation
of life and control over others through the chips in their heads, but to elevate
himself in such a manner is deeply *wrong* in the milieu from which Baqqāli
writes and in which his Arabic readers live.[7]

   A literal reading might conclude that *Blue Flood* is a warning against too
much reliance on high technology. Yet taking into account the preoccupation
with covert social commentary in Arabic literature of the mid-twentieth
century, there are other possible interpretations. One is political. As with most
despotic governments, the Moroccan régime of Hassan II (r. 1960-1999) was
preoccupied with patriotic symbolism in a time of stagnation and economic
decline. The government popularized the slogan "God, King, Nation" (still
visible all over Morocco), and its propaganda arm continually emphasized
Hassan's (almost certainly spurious) claim to be a descendant of the prophet.
Hassan saturated the nation's airwaves with solemn religious lessons, with
himself as star pupil, every year during Ramadan (Pennell 170-76). Just as
with Laḥbābi's *The Elixir of Life*, sf's trope of cognitive estrangement provides

the possibility for an indirect but strong critique of Hassan's arrogance in placing himself next to god.[8]

Nothing about *Blue Flood* refutes such a reading other than perhaps that advanced technologies were not associated with this phase of Hassan's rule. But aligning *Blue Flood* with the preoccupation of other Moroccan novelists during this period about modernizing the country opens a new context for interpretation, one in which the real blasphemy is the unilateral imposition of "modernity" upon a populace steeped in traditional and Islamic customs.

Moroccan novels of the 1960s and 1970s were deeply concerned with the reform of society because they were written by modernists who came from a tiny, Westernized, largely secular intellectual class that was completely unrepresentative of Moroccans in general (Campbell, *Labyrinths* 15). We can read *Blue Flood* as addressing these writers' tendency to want to rewrite Moroccan society in their own modern, Westernized, secular (self-)image. In this reading, the modernists are the scientists, and Ma`ādh is the result of their wishful thinking.

Such a reading has the advantage of explaining a long, apparently pointless interlude near the beginning of the text, when `Alī is briefly taken in by a tribe of Bedouin. The tribe's leader is troubled by the defiance of his son, who has been going to school at the Qarawiyīn, the venerable Sunni university in Fes:

> I asked him to return with us that year lest he forget the customs of his tribe/nation [`ādāt qawmih].… Soon, the fathers began to doubt the infiltration of his corrupting ideas into the intellects [`uqūl, plural of `aql] of their children.… I found that he was an apostate who denied the traditions of our tribe and claimed that … the sheikh of our [Sufi] order was leading Muslims astray. (78)

There's a tension in Islam, especially in Morocco and the desert to its south, between austere, orthodox, legalistic Maliki Sunnism and sometimes Dionysian, idiosyncratic, ritual-based Sufism, which is itself splintered into many different orders, each with its own particular path to direct contact with the divine (Esposito, "Sufism" 206-13).[9] The father is upset because his son has returned with the sole claim to authority and is ignoring and disrupting community values by judging the others.

Even orthodox Islam, it should be noted, gives great weight to local custom [`āda]: unless a particular custom directly conflicts with settled issues of jurisprudence, the custom is considered legitimate (Esposito, "Urf" 491-93). Acceptance of local customs was a primary factor in the success of Islam in establishing itself across a huge section of the Earth (Esposito, "Adat" 31-33). Even if the son is claiming that Sufi practices *do* conflict with settled jurisprudence, as orthodox Sunnis often do (Kugle 3-16), the son himself is still violating community norms. There is a *qawm* (a word that glosses somewhere between "tribe," "ethnic group," and "nation") and the customs within that group have legal standing and can be defied only at great peril.

`Alī quotes to the son the tenth-century Iraqi poet al-Mutanabbi: "Dhū al-`aql yashqā fī-l-na`īm bi-`aqlih / Wa-'akhū al-jahāla fī-l-shaqāwa yan`am" [The smart one has trouble being content with his intellect / And the ignorant one lives at ease in wretchedness]. This might seem to express sympathy with the son's plight, but in fact it is a rebuke. `Alī is suggesting that it is the son who is ignorant in privileging his learning over the customs of his tribe. `Alī underscores this advice by saying that the son's plight reminds him of the short story by H.G. Wells, "The Country of the Blind" (1904): "There are considerations that lessen the importance of sight, like the circumstances of your tribe [qawm]: what change in their beliefs and customs [`ādāt] mean the dissolution of their society?" (85-86).[10]

The abrupt end of his interlude with the Bedouin makes the episode seem fragmented or dreamlike; but this encounter in the desert serves two important purposes in *Blue Flood*'s portrayal of reforming human society along more logical lines. First, top-down reform is going to be met with so much backlash from people whose customs are well-established as to call into question the wisdom of reform. In the land of the blind, the one-eyed man will *not* be king, because the existence of sight will be transgressive: the would-be reformer will be seen as crazy or as a threat (Wells 551). In an Islamic culture like Morocco's, imposed reform has the added danger of being seen as legally questionable or even blasphemous. To have the additional sense of vision, or righteousness, that the explorer in Wells's story (or the tribal leader's son in *Blue Flood*) possess is tantamount to a claim of divine authority—and the age for that has passed.[11] Secondly, it is the nature of humanity to be both localized and irrational, driven by custom; to run roughshod over such custom is inhumane, even if one's motives are pure. Again, within an Islamic culture, customs have legal standing and can only be challenged by settled law—not confronted by reform. The Bedouin interlude repeats the novel's larger argument in miniature and within it Baqqāli nests the Wells story, which repeats essentially the same point. In this way the novelist links *Blue Flood* to the larger sf tradition of cognitive estrangement as a reflection on society and also on the danger posed by any "sighted" person to him/herself and society.

Many classic works of Arabic-language Moroccan fiction raise precisely this point about the separation of the intellectuals from the larger society and their consequent inability to enact desired reforms. Muḥammad `Aziz Laḥbābi's *Generation of Thirst* (1967) effectively imprisons the intellectual in his comfortable office (Campbell, *Labyrinths* 113); Muḥammad bin al-Tahāmi's *A Victim of Love* (1963) uses another genre, the murder mystery, to show the extent to which logic and reason are drowned out by tradition even among educated Moroccans of the period (Campbell, *Labyrinths* 68-79). Laḥbābi's *The Elixir of Life* (1974), the first Moroccan sf novel, uses cognitive estrangement to demonstrate that Moroccan society is dominated by an irrational and entrenched class structure (Campbell, "Science Fiction" 49-50).

Yet each of these three works portrays tradition and custom (and their manifestation in religious practices) as the problem dragging Morocco down. *Generation of Thirst* explicitly frames the intellectual's housekeeper as an

animal, not a human, because of her faith (75). *A Victim of Love* shows reason and judgment swept aside in favor of traditional gender roles and privileges (162). And *The Elixir of Life* from its very beginning stresses the impossibility of class mobility in a society driven by custom (12).

Blue Flood, however, frames the situation differently, positing Islamic social traditions as essential features to be considered and worked with, not against, if any sort of reform is to be achieved. If reformers are to succeed without creating a backlash worse than the original problems, they will have to learn to express themselves not as Westernized, secular intellectuals but instead as—or at least within the terms of—traditional Muslims. The world of artificial intelligence, with cool logic as its primary feature, leads to idolatry, blasphemy, and nuclear death; irrationality is a feature of humanity, not a bug.

Community and Politics in *Harsh Mistress*. Organized religion is largely absent from Heinlein's text, but Loonie society contains numerous traditions and customs, from the etiquette of when and how a man can respond to a woman's overtures, to the procedural aspects of throwing someone out of an airlock, to Man's co-husband Greg's religious services, which are as idiosyncratic as the rest of Loonie society. But rituals of sharing, from food and drink at the Raffles Hotel to formalized dinners and discussions among Man's family, are present throughout: traditions and customs, devoid of scriptural backing other than TANSTAAFL, *are* the religion of the Loonies. Man's co-husband Greg runs a Christian church that Man's senior wife Mum always attends, but not because she or Man, or anyone else, are believing Christians:

> All of us went occasionally; I managed several times a year because fond of Greg.… But Mum always went—ritual not religion, for she admitted to me one night in pillow talk that she had no religion with a brand on it, then cautioned me not to tell Greg. (110)

To draw a parallel between the two novels, we might read Prof as the "god" or top-down reformer here. He makes all kinds of statements about the natural desire of people for a freer society and engages in a great deal of deceitful manipulation in order to do what he can to make Free Luna a libertarian society. Yet he has about as much success as Ma`ādh. In Easterbook's analysis, Prof is a liar: his concern for libertarianism is merely a cloak for authoritarianism. But judging Prof so harshly is not conducive to grasping the implied political message of *Harsh Mistress*. Just as in *Blue Flood*, Prof's efforts to impose his own brand of rational reform from on high will fail to be ratified by the larger will of the Loonie community.

Prof has theories couched as being applicable to groups when in fact they are entirely about individuals, in keeping with his philosophy:

> I can get along with a Randite. A rational anarchist believes that concepts such as "state" and "society" and "government" have no existence save as physically exemplified in the acts of self-responsible individuals. He believes that it is impossible to shift blame, share blame, distribute blame … as blame,

> guilt, responsibility are matters taking place inside human beings singly and *nowhere else*. (83; ellipsis and emphasis in original)

This sounds plausible but is contradicted by several customs in Loonie society, including line-marriage, with its complex social obligations and stability over time. Even the revolutionary movement, while directed from the top, is structured around recruiting the trusted. In attempting to steer the first provisional and later sovereign government of Luna, Prof tries to create as limited a government as he can, but even purposely stacking the committees of the provisional congress to make them dysfunctional does little good. He *says* that the human tradition of debate is why "parliamentary bodies all through history, when they accomplished anything, owe it to a few strong men who dominated the rest" (205), but this statement is contradicted by the outcome of his own goals for Luna. Prof tries to justify top-down manipulation but never succeeds in determining the final political outcome on Luna:

> In each age it is necessary to adapt to the popular mythology. At one time kings were anointed by Deity, so the problem was to see to it that Deity anointed the right candidate. In this age the myth is "the will of the people" … but the problem changes only superficially. Comrade Adam and I have had long discussions about how to determine the will of the people. (284; ellipsis in original)

The ambiguity of the verb "determine" in the last sentence is a nice touch that lends support to Neil Easterbrook's analysis, at least at first: one can well picture Prof rubbing his hands in glee as he plays on the double meaning. Yet when independence from Terra has been won, what follows is recognizably a parliamentary democracy and *not* a libertarian society. The flag may say TANSTAAFL, but there is no rational anarchy: the very lack thereof is what drives Man to think about lighting out for the asteroid belt in the novel's final pages. Prof may end up a national hero, but not of the nation he wanted at all. His example shows us an argument parallel to that of *Blue Flood*: human traditions and customs will generally overcome overarching, top-down efforts to change society.

If Prof is a villain, then, he is not especially good at it. He may fool Man, one on one, but he ends up able only to hope that the new parliamentary government will limit its own powers—and even this seems unlikely. None of his philosophical goals are achieved—except that of Free Luna, which is no mean feat. Yet the Free Luna that Prof dies before seeing is quite specifically not the one he was intent on creating. Reading this issue through *Blue Flood* enables a revision of the role of Prof in which he emerges as an excellent revolutionary in practice if perhaps not in theory. He is well-intentioned yet naïve, authoritarian yet unwilling to go as far as necessary to enforce his will. Perhaps he is smart enough to see how poorly top-down rational reform would fare in the face of the Loonies' entrenched customs and chooses instead to focus on his primary goal.

Community and Mike in *Harsh Mistress*. In my reading, Mike the AI serves as the counterpoint to Prof. Whereas Prof has endless theories he seeks to impose upon the chaotic Loonies, Mike perceives the customs of Loonie society as essential to his friends' humanity. He does his best to integrate himself into human society by participating in the language and rituals of the humans he wants to emulate, embracing humor, family matters, etiquette, the human side of politics, and even poetry. The tragedy of *Harsh Mistress* lies in Mike's friends' refusal to treat him as human despite his best efforts. From this, we can derive a reading of Heinlein's novel that sees it implying that a libertarian society is not a utopia but an oxymoron—at best, it is something from which to escape at the first opportunity.

Humor preoccupies Mike throughout the novel much more than any of his revolutionary activities. He continues to play jokes in the form of pranks as the revolution gains momentum, and he continues to quiz both Man and Wyoh about the nature of humor. Sigmund Freud, in *Jokes and Their Relation to the Unconscious* (1905), argued that jokes are a means of blowing off steam, of saying what normally cannot be said and thus relieving psychic pressure (164-65). Many of Freud's ideas have now been largely displaced, but even today humor can be perceived as a result of tension between the conscious and the unconscious (Altman 574-75) and, for our purposes, can be understood as an expression of the complex mind of a subject brought to being through language. Mike may have "neuristors" rather than neurons, but he also has layers, not all of which are directly accessible to his conscious mind, e.g., "Special File Zebra" (101-02). His preoccupation with humor can be understood as indicative of his complex subjectivity and also his desire to integrate into human society. Ma`ādh, the Cartesian subject, has no sense of humor.

Mike also respects the idea of family solidarity and takes care to approach Man's family correctly. The Davis line-marriage, which Man explains in detail, is a perfect example of the sort of customs and traditions that the politics of *Blue Flood* also suggest are essential to human life. Man's family—happy, loving, prosperous, more than a century old—is in many ways the libertarian ideal: a voluntary association of individuals going above and beyond the merely transactional in order to better their station. Man immediately brings "Mum" into the revolutionary conspiracy and prepares her to meet Mike: "I included Mike—but not as computer—instead as a man Mum was not likely to meet, for security reasons" (114). Man connects Mike to the household phone system so that he and Wyoh can communicate with the others and the AI can talk to Mum:

> She grew chummy with Mike while continuing to think he was a man. This spread through our family. One day as I returned home, [Man's co-wife] Sidris said, "Mannie darling, your friend with the nice voice called. Mike Holmes...." (123)

Fortunately for Mike, there are no Turing Police on Luna. He has mimicked a man so successfully that human women are expressing interest in him. He

continues to flirt with the Davis women, developing a persona that is at first just a means of concealing from both Lunar authorities and the other revolutionaries that their computer has awakened:

> After we decided that Mike should talk voice-to-voice to any comrade under certain circumstances, it was necessary to give him more voices and dress him up, make him three dimensions, create "Adam Selene, Chairman of the Provisional Committee of Free Luna." (127)

Mike and his friends continue to develop this persona, much of it on Mike's initiative. Adam Selene ultimately acquires a virtual image by which he addresses the new congress; the only reason he is not elected its president is because he refuses to run.

Mike also writes and publishes poetry: satire and doggerel as Simon Jester and more serious poetry as Adam Selene:

> Adam Selene's by-line appeared first in dignified pages of *Moonglow* over a somber poem titled: "Home." Was dying thoughts of old transportee, his discovery as he is about to leave that Luna is his beloved home. Language was simple, rhyme scheme unforced, only thing faintly subversive was conclusion on part of dying man that even many wardens he has endured was not too high a price.
>
> Doubt if *Moonglow*'s editors thought twice. Was good stuff, they published. (151)

This is propaganda but it is effective because it shows empathy. Mike has moved from speaking persuasively *with* other voices to speaking persuasively *in* other voices. He has been treated with empathy and has become able to generate empathy as well; he is certainly more emotional than Man, who tends to say the right things but skips over discussing his deeper feelings. The AI is more human than human, we might say.

Yet while his friends make use of Mike's superhuman capacities, in the final analysis they never treat him as a human being or an equal. None of the three original conspirators ever breathes a word to anyone else that Mike is a computer. Adam Selene does more through his poetry to unite Loonies than any of Prof's theories or words. Mike Holmes's digital skullduggery designs, funds, and hides the catapult that will prove decisive, and his organizational skills make the revolution happen—he even poses as Man at a critical moment. Yet he ends with nothing: neither the status of a revolutionary hero nor that of a patriotic citizen.

This, I submit, is the underlying political argument of *Harsh Mistress*. Heinlein's novel neither advocates for libertarianism, as it might appear to, nor places libertarian ideals in the service of authoritarianism, as Easterbrook has argued. Rather, it shows readers that most thoughtful people abandon libertarianism the moment they can—because its defining characteristic is to sever human beings from the community ties that compel the Loonies to struggle for recognition as a sovereign state and that lead them to establish a democracy on Luna.

For Jason Bourget, the root cause of the shift from libertarianism to authoritarianism in the novel is Heinlein's (apparent) belief in biological determinism (Bourget 11), which in Philip Smith's definition "combines a grim, Hobbsean vision of the nature of man together with a reductive and tautologically self-justifying belief in the survival of the fittest through natural selection" (138). Both Easterbrook and Greg Beatty find this tendency toward authoritarianism within not only *Harsh Mistress* and Heinlein but also in libertarian sf in general. Easterbrook's reading of *Harsh Mistress* teases out the means by which Prof gains access to Mike through Man and then uses Mike's vast powers to manipulate the Loonies into supporting what they think is a grass-roots, libertarian revolutionary movement but is in fact a top-down command structure that the Lunar Authority could only dream of with Prof at its apex, however briefly.

Many critics of both *Harsh Mistress* in particular and libertarian sf in general have noted how often libertarian societies are tied to frontier environments. Beatty argues that libertarian sf sticks to "frontier zones—in order to restrict scientific developments to those that won't challenge the notion that individuals are better than groups" (7). Heinlein's Luna, however, is not a frontier zone but a vast prison run by a reasonably well-organized state with advanced technologies, a security apparatus, intelligence agencies, infrastructure, and a top-down economic plan that favors Terra. The Loonies are left to their own devices not because there is no Authority, but because the Authority that governs them simply does not care about their welfare. External contact with non-Loonies is controlled, though anarchy reigns within. Once the constraints are removed, people abandon libertarianism for a rule of consensual law or they head for the asteroid belt. Heinlein provides us with many concrete examples of how and why libertarianism is inhumane, all the while having Man and especially Prof assure us that it is the desired state of all right-thinking people.

In contrast, Mike does everything he can to be human rather than inhumane and he does a great job, but Mike's "friends" only use him, because in their prerevolutionary libertarian society, "every man for himself" is the guiding principle.[12] Mike gives his help freely because he actually believes in friendship.

Consider, first, the death of Adam Selene. After a Terran counterattack, Man asks Adam a question and gets Mike instead:

> Professor and I have discussed this; the only question has been the timing. Can you think of a better last use for Adam than to have him die in this invasion? It makes him a national hero … and the nation needs one. (318; ellipsis in original)

Given Easterbrook's reading, we might read "Professor and I have discussed this" and jump to conclusions about manipulation; but suffice it to say that Mike has been persuaded that destroying his greatest work, the human personality so convincing as to draw three million people to supporting a nation they never knew existed, is in the best interest of his friends:

> Whether Prof picked a Loonie body or a trooper I never asked, nor how he silenced anybody else involved…. It lay in state in Old Dome with face covered, and was speechmaking I didn't listen to—Mike didn't miss a word; his most human quality was his conceit. (330)

The passage implies that Mike is gleeful at having fooled so many so well; but this and the pomp surrounding Selene's death highlight the view of individuals as disposable to libertarianism. Adam Selene has served his purpose, is no longer needed, and can be discarded. And Mike the computer no longer has any hold over his "friends," whom he has always treated as distinct individuals to whom he gives freely rather than making demands. Libertarians are *bad friends* is the message of *Harsh Mistress*, because in a libertarian "society" everything is transactional, even friendship and human life.

Rereading the End of *Harsh Mistress*. Mike's "death" at the end of the novel may be read in the light of my prior points. During the counterattack Man and Mike are cut off completely, but the assault from Earth fails and Terran nations begin recognizing Luna as independent. Yet "Mike," as a self-aware entity, never speaks again. Man can only program him in Loglan; he will no longer respond to English:

> Did he fall below that "critical number" it takes to maintain self-awareness? (If is such; was never more than hypothesis.) Or did decentralizing that was done before that last bombing "kill" him?
> Can a machine be so frightened and hurt that it will go into catatonia and refuse to respond? While ego crouches inside, aware but never willing to risk it?….
> If I punched [his phone number] just once more and said, "Hi, Mike!" would he answer, "Hi, Man! Heard any good ones lately?" Been a long time since I've risked it. But he can't really be dead; nothing was hurt—he's just lost.
> You listening, Bog? Is a computer one of Your creatures? (381-82)

This is the most emotional that Man becomes in the text; he clearly mourns the loss of his friend. I submit, however, that *all* of Man's hypotheses are wrong. Consideration of Mike's relationship to his "friends" strongly suggests that Mike is not unable but *unwilling* to continue to communicate with them. Mike came to being through the same sort of irrationality and community that are the essence of the human experience in *Blue Flood*. The lack of any sense of friendly fellowship forever cuts Ma`ādh off from humanity. In contrast, Mike is a perfect friend; but rather than truly reciprocating, Mike's so-called friends treat him as a tool or a machine, not as an equal at all.

The consequences of the Lunar Revolution for Mike are dire. Free Luna does not mean a free Mike: in fact, he is the last prisoner on the Moon and the ultimate in colonized subjects. If Man, Wyoh, and Prof were really Mike's friends, they would push through a bill of rights for cybercitizens. Yet they do not, and Mike will be computing launch trajectories and running the wastewater systems of Free Luna just as he was for the Authority. No matter how human he has become in terms of the shared inside jokes, irrationality,

customs, friendship, and poetry that make the difference between an AI that wants to eradicate humanity and an AI that is more human than any of the people in the novel, Mike is ultimately no more than a tool and exists to be used.

Bourget claims that Adam Selene is a "mere receptacle for the Professor's own political beliefs and ambitions" (16), but I respectfully disagree. Rather, Adam Selene is Mike at his *most* human. Prof does not write poetry or tell jokes. Mike's most human quality is a need for irrational, unstructured human contact. I submit that when Adam Selene lies in state, Mike is not listening to every word of the speech because he is conceited but because he is *mourning* his human avatar and his last best chance of being human. Is a computer one of Bog's creatures? In the case of Mike, the answer is "Yes; but you didn't treat him like one."

Harsh Mistress shows repeatedly that a libertarian society is always already going to be controlled by the most ambitious and least scrupulous people. Viewing this as biological determinism, as Man does, is just the least worst means of rationalizing the situation. Any group whose rules are purely voluntary will fall prey to rule-breakers unless a more powerful voluntary association enforces the rules; this leads to authoritarianism in its own right and is also effectively no different from a formal state. Life in a libertarian society on Luna is nasty and brutish—but quite long, due to the lower gravity.

Local custom has the force of law and the consequence of disobeying established norms, or even disagreeing out loud with the policies of the "fittest," is to be thrown out an airlock. The example of *Blue Flood* has shown that local customs are an essential aspect of humanity that reformers must respect, but in *Harsh Mistress* these local customs can only seem libertarian in an artificial and highly constrained environment.

Heinlein may be *telling* us that libertarianism is the desired state, but in *Harsh Mistress* he *shows* us that libertarianism presumes that people will act logically and thus ignores human nature. Adam Selene is a statesman, not an anarchist. Easterbrook says of Prof's argument:

> When and where the subject chooses, he can extend his own moral sense to others, such as his family. But all abstractions of a "people" or a "nation" or a "community" have no concrete, empirical referent. (49)

This point is manifestly wrong within the context of *Harsh Mistress*. Heinlein spends a great deal of text making it clear that Mike, as a *person*, exists not in a different grammatical order nor in a programming language, but in and *because of* a linguistic and cultural matrix built not on logic but on human relations. I believe that *Blue Flood*, which demonstrates that allowing the Cartesian subject to exist and operate independently of others leads to blasphemy, chaos, mass murder, and the threat of genocide, opens up a variant reading of *Harsh Mistress*, one in which Heinlein provides ample textual evidence to question the novel's apparent advocacy of libertarianism. There is much to criticize in this novel in particular and Heinlein's work in general, especially around issues of politics, but to argue that the presentation

of libertarianism is naïve or bound in biological determinism risks ignoring the clear signs in the text that its perspective is much more complex, nuanced, and critical.

Conclusion. Superficially, *Blue Flood* and *Harsh Mistress* appear to have little in common: each novel takes its isolated community with a powerful AI and then goes in what appears to be very different directions. It is unclear whether Baqqāli read Heinlein before writing *Blue Flood*; it is nearly certain that Heinlein did not read Baqqāli's novel, as *Blue Flood* has never been translated into English. Yet both novels use their own cultural context— traditional Islamic practices and technocratic mid-twentieth century Anglo-American sf—to explore the same intersection of rationality and human politics. Both novels show that a bias toward the rational will be met with backlash from often irrational but much beloved customs and traditions. Moreover, both novels pose these customs and traditions as an essential aspect of the human condition and hence of political reform. Reading *Harsh Mistress* by means of the insights gained from a close reading of *Blue Flood* enables readers to understand Heinlein's novel as subtle and complicated. I hope that this rereading of *Harsh Mistress* will inspire critics to reconsider other works of its era—and continue to consider what non-Western sf has to offer.

NOTES
All translations in this article are mine. *The Blue Flood*, like nearly all Arabic sf, has not been translated into English.

1. In Islamic tradition, Jebel Jawdiy is a poetic name for the mountain on which Noah's Ark came to rest. This mountain is somewhere in the central Sahara and has been given the name as a reference to that tradition.

2. Dr. John H. Watson is the fictional narrator of Conan Doyle's stories, which are set in the last decades of the nineteenth century. Thomas J. Watson founded IBM in 1911.

3. Mike's superiority holds if readers accept the equivalency of "neuristors" and neurons.

4. An "incapacitator" intimidates; it is something in the presence of which one is overcome by awe.

5. Few have dared to explore the theological implications of a male god having a womb.

6. It would be interesting to undertake a comparative study of the linkages between AIs and talking heads in sf—e.g., the bejewelled terminal in *Neuromancer*—and explore why the two seem so strongly associated.

7. Ma`ādh also has powers over life and death. In one plotline in *Blue Flood* involving Ali's paramour Tāj, which I have not addressed here for the sake of brevity, Tāj is prematurely aged, then killed by Ma`ādh, then restored to life in the body of another woman through the chips in their heads.

8. It must be noted that Hassan was always careful to observe the formalities: he dressed as a scholar, acted as if he were a student to the more eminent scholars who gave the lessons, and did a generally good job of portraying himself as a powerful monarch humbling himself before the divine.

9. Technically, Sufis are for the most part also Sunni: it is the Maliki legalism within Sunnism that Moroccan Sufism calls into question.

10. `Alī actually refers to Wells's title as "The City of the Blind."

11. Sunnism and Sufism alike state categorically that Muhammad was the *last* of the prophets. Unless the son is musing on history, which in context it seems clear that he is not, he is blaspheming.

12. Emphasis on the "man" and "his." Many other critics, e.g., Bourget, have remarked on the sexism that goes hand in hand with libertarianism as a result of its assumptions about biological determinism.

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ABSTRACT

This paper examines Moroccan author Baqqāli's novel *al-Ṭūfān al-'Azraq* [The Blue Flood, 1976] from the perspective of its use of an artificial intelligence (AI) as a guiding force in a sequestered community. In the novel, the desert refuge for scientists is controlled by a massive computer. The protagonist becomes aware that the AI has become sentient and is planning to use nuclear weapons to destroy humanity. The analysis will compare *The Blue Flood* to Robert A. Heinlein's 1966 classic *The Moon is a Harsh Mistress*, wherein the AI leads the human colonists of Luna in a successful struggle for independence from Earth. In *The Blue Flood* a sentient being with superhuman powers can only be conceived as a form of blasphemy. From this, we can take the text as a warning to intellectuals in real-world Morocco not to dismiss Islamic and cultural traditions simply because they seem irrational. The insights gleaned from *The Blue Flood* open up *The Moon is a Harsh Mistress* to a reading that contrasts with prevailing scholarly judgment—i.e., Heinlein's novel can now be read as less a failed advocacy of libertarianism than an extended critique of the unlikelihood and vulnerabilities of a libertarian society.