The Postnuclear Ecosystem of Central Asia: Hamid Ismailov’s *Vunderkind Erzhan*

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**Abstract.** The core of this article consists in an ecocritical reading of a Russian language work from Central Asia: *Vunderkind Yerzhan* (2011) by Hamid Ismailov (b.1954). Based on the recognition that the Anthropocene calls for an emphasis on the complex interrelationships of ecological systems, the article underscores the urgency of an ecocritical reading in understanding the impact of human agency on the environment, particularly in relation to the history of Central Asia. The article traces the origins of environmental problems in Central Asia, including the Aral Sea crisis and nuclear testing in Semipalatinsk, illustrating the contradictions in Soviet ecological policies that simultaneously advanced and degraded the environment. *Vunderkind Erzhan* unfolds in a post-nuclear wasteland, where the protagonist, Erzhan, encapsulates the ecological legacy of Stalinist times. The article focuses on the interconnectedness of Erzhan’s life with the environmental abuses perpetrated during the implementation of nuclear power. Ismailov conveys the environmental sadness provoked by the region’s ecological degradation; his povest’ is an outcry against the Soviet myth of progress and sheds light on the environmental consequences that developmentalist policies had in Kazakhstan. Ismailov’s work becomes a lens through which the article examines the environmental challenges in the region, providing a nuanced understanding of the intersections between literature, culture, and the environment. *Vunderkind Erzhan* emerges as an exemplary ecological tale, illustrating the profound interconnection between all earthly beings, all affected by the far-reaching consequences of human agency.

**Keywords:** Ecocriticism, Anthropocene, Nuclear Testing, Kazakhstan.
And whether or not the ‘postcolonial label’ can be applied to the peculiarities of Central Asia and, consequently, to the literatures produced by authors living there, are also contentious questions that are beyond the scope of this article. Nevertheless, it is worth reiterating that postcolonial discourse assumes “a natural prioritization of humans and human interests over those of other species on earth […] both generating and repeating the racist ideologies of imperialism on a planetary scale” (Huggan and Tiffin 2015, 6). This is one of the key reasons why I will instead analyze Hamid Ismailov’s povest’ *Vunderkind Erzhan* (2011; eng. tr. *The Dead Lake* 2014) following the lead of ecocriticism, or environmentalism, which “has tended as a whole to prioritize extra-human concerns over the interests of [the] disadvantaged human groups” (Huggan and Tiffin 2015, 17) of postcolonial discourse. Despite such apparent contrast, the two approaches are interconnected; according to Timothy Clark all ecocriticism must be rendered “postcolonial’ in a broad sense, as the economic systems and lifestyle of any ‘developed’ country necessarily impinge on the material contexts of all other parts of the world” (2019, 138). Ecocriticism studies the relationship between literature and the environment, taking “as its subject the interconnections between nature and culture, specifically the cultural artifacts of language and literature” (Glotfelty and Fromm 1996, xix). The aim of the ecocritical reader – because ecocriticism is first of all “a particular way of reading, rather than a specific corpus of literary and other cultural texts” (Huggan and Tiffin 2015, 13) – is to think broadly in terms of globalism and universalism; this perspective seems inconceivable in postcolonialism’s narrow “space of the subaltern, […]the space of the subproletariat” (Spivak 2009, 54).

As Brookers and Fratto observe, “[a]lthough ecocriticism as an area of inquiry was formalized with the establishment of the Association for the Study of Literature and the Environment in 1992, it has been slow in catching on within Russian studies” (2020, 5); nevertheless, the urgency of using an ecocritical approach in the reading Russian literature is becoming increasingly popular as several studies from the last few decades show. Without doubt the Russophone literature of Central Asia especially


2 I have discussed the importance to adopt an ecological approach to literature and ecocriticism’s common traits with postcolonial studies in “Animals – human and non – in Aitmatov’s *Kogda padaiut gory* and Volos’s *Palang*” in L’immagine Riflessa (forthcoming 2023). For a detailed approach to the matter see Huggan and Tiffin 2015.

3 See for example Brooks and Fratto 2020 and Foster 2015.
lends itself to an ecocritical reading; indeed, the ideas that constitute the fundamental bases of the concept of the age of Anthropocene⁴ are deeply rooted in early and late Soviet ecological culture (Foster 2015), and, moreover, important ecological values can be traced back to the approach to the ecosystem that characterized some of the peoples of Central Asia, as entwined in philosophical and religious animistic practices. Indeed, opting for a method of reading literary texts that focuses on the complexity of the relationships within the ecosystem seems inevitable in the geological era of the Anthropocene, when human agency has irretrievably encroached upon and altered every corner of the planet. Central Asia offers an extremely relevant and significant case study for understanding the complex interactions between human activities and environmental changes, due to its recent history. Land use and abuse, from overgrazing and other unsustainable agricultural practices to nuclear testing have contributed to desertification, soil erosion, and loss of biodiversity.

By adopting an ecocritical approach to the literature of Central Asia, we can shed new light on a major issue in the age of globalization, namely the impact of human agency on the environment, considered in a broad and global sense. Accordingly, it seems especially necessary when exploring literatures produced in Central Asia to adopt a multidisciplinary approach, combining the study of literature with that of the environmental, social, and cultural context. Since “[r]eading in the Anthropocene is an invariably polyglot, salvage practice in which we employ all of our tools to discover meaning amid the ruins” (Menely and Oak Taylor 2017, 34), this article will address how the developmentalist policies that were fostered in Soviet times resulted in environmental catastrophes in Central Asia, specifically underlining the impact of nuclear testing. The inevitable repercussions of this situation in literature will be explored with reference to Ismailov’s Vunderkind Erzhan.

As early as the second half of the 19th century, the lifestyle of the inhabitants of Central Asia began to move along a path of radical transformation: economic, social, cultural, and political modernization. During the 20th century, the policies implemented by the Soviet government were responsible for an increasingly rapid transition to modernity. While the

⁴ “Any definition of the Anthropocene identifies a point of entanglement between the Earth system and social systems, wherein varied forms of causality, from the imperatives of capital accumulation to the manner in which CO₂ absorbs infrared radiation, intersect. The Anthropocene Earth system, to put this another way, includes not just the hydrosphere, atmosphere, biosphere, and lithosphere, but also diverse economies and energy systems, societies and symbolic orders.” (Menely and Oak Taylor 2017, 11). On the Anthropocene see also, among others, Crutzen and Stoermer 2000, Latour 2014, Lewis and Maslin 2015, Davies 2016.
success of some of these policies remain indisputable — i.e., the provision of infrastructure, including libraries, housing, schools, and hospitals; the emancipation of women; and universal literacy — there was also extensive damage to the region in a number of spheres, particularly the ecological one. As John Bellamy Foster observes, what has been called ‘ecocide’ and often seen to have been provoked by the anti-ecological politics of the USSR, which brought about some iconic catastrophes — Chernobyl and the Aral Sea among others — can be traced back to Stalin’s political decisions of the 1930s and 1940s. Nevertheless, both early Soviet and late Soviet ecological policies were incredibly dynamic, and scientific ecological criticism “enormously advanced ecological science and thinking, and pointed to the need for a rapid ecological restructuring of human society throughout the globe” (Foster 2015). The Soviet approach to ecology is thus certainly characterized by several contradictions that we need to bear in mind in approaching the events that constitute the backdrop of our analysis. The majority of the brilliant ecological thinkers that were highly influential in the 1920s were purged, entailing largescale consequences that led to the degradation of the entire environment. One of these consequences was certainly the program of nuclear experimentation implemented in Semipalatinsk, Kazakhstan, from 1949 until 1989.

One of the key words in the Soviet idea of progress is ‘development’ (razvitie). The word tends to carry a positive meaning: deeply rooted in the consciousness of 21st-century humans is the idea that ‘development’ is somehow a salvific, noble mission. Nevertheless, the term is: “generally recognized to be a strategically ambiguous term, adapted to the different needs of those who use it [and] at best a form of strategic altruism” (Huggan and Tiffin 2015, 29-30). According to Escobar, development was an invention of the post-war period, a historically produced discourse whose structure of representation reinforces the political authority of the dominant power (Escobar 1995). The dichotomous relationship between the ‘central’ or ‘developed’ pole and the ‘peripheral’ and ‘undeveloped’ one permits the former to dominate the latter, institutionalizing a comparative mechanism based on the center’s notion of ‘progress’. According to the even more radical viewpoint of Gustavo Esteva, development can be seen as a colonizing force:

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5 Among others, see for example Abashin 2016 “The Soviet ideology and political system offered all citizens of the USSR not only more or less equal opportunities to use the available institutions and rules, but also invited them to participate actively in the functioning of the latter and encouraged them to pursue activist careers. There were special programs of support and leveling of status for various kinds of minorities and peripheral areas; great attention, of course, not without self-interest and costs, was paid to the emancipation of women” (36-37). Unless otherwise stated, translations are mine.
[the] positive meaning of the word development—profoundly rooted after two centuries of social construction—is a reminder of what [underdeveloped countries] are not. It is a reminder of an undesirable, undignified condition. To escape from it, they need to be enslaved to others’ experiences and dreams (Esteva 2013, 8).

While ‘development’ is an important term in Soviet policy and rhetoric, is easy to see it through a Saidian or postcolonial lens as part of an oppressive political arrangement, whose policies also justify the appropriation of natural resources from the so-called ‘undeveloped’ countries to benefit those who are ‘developed’.

In the context of Soviet Central Asia, authorities were shortsighted in assessing the consequences that their developmentalist policies would have, and as a result were responsible for irreversible ecological damage. Several areas of Central Asia have suffered from serious environmental problems: the Aral Sea has dried up; moreover, droughts, water contamination, and air pollution are just a few of the ecological dramas the region faces today.

В 1949–1989 годах на территории Семипалатинского испытательного ядерного полигона (СИЯП) было проведено в общей сложности 468 ядерных взрывов, в том числе 125 атмосферных, 343 под землей. Суммарная мощность ядерных зарядов, испытанных в атмосфере и над землей СИЯП (в населенной местности), в 2,5 тысячи раз превышает мощность бомбы, сброшенной американцами на Хиросиму в 1945 году (Ismailov 2011).

Between 1949 and 1989 at the Semipalatinsk Nuclear Test Site (SNTS) a total of 468 nuclear explosions were carried out, comprising 125 atmospheric and 343 underground blasts. The aggregate yield of the nuclear devices tested in the atmosphere and underground at the SNTS (in a populated region) exceeded by a factor of 2,500 the power of the bomb dropped on Hiroshima by the Americans in 1945 (Ismailov 2014, 4).

This paragraph, constituting the epigraph of Hamid Ismailov’s Vunderkind Erzhan, makes a clear statement and the story that follows denounces the catastrophic environmental destruction caused by governmental policies favoring technological development. The region was chosen to become a test site because of its geophysical characteristics: the boundless and sparsely inhabited plains were deemed to lend themselves perfectly to nuclear testing. After the fall of the Soviet Union, however, the ‘Polygon’ at the Semipalatinsk test site was closed, and the inhabitants of the surrounding areas migrated en masse. Soviet policy enormously implemented nuclear power: by 1991, there were 1400 nuclear warheads in
Kazakhstan, making it one of the most important atomic powers in the world (Fatland 2019, 209).

It is in this post-nuclear Kazakhstan wasteland that *Vunderkind Erzhan* takes place. Written in Russian and originally published in the magazine *Druzhba Narodov* in 2011, this *povest*’ denounces the ecological legacy of Stalinist times and stands as a statement of the author’s willingness – born in Kyrgyzstan, raised in Uzbekistan and resident in London – to immerse himself in the history of Kazakh peoples and territories and to face the sadness this will provoke:

For Kazaks, the road is everything. They never look back. [...] Kazakh people, I think, still have a nomadic mentality: they are always looking to the future, to new pastures. They don’t want to think about the pastures of the past, because these pastures have been eaten. So maybe Kazakh people don’t want to remember, but I do. That’s why this sad story had to be retold in all its sadness. (Ismailov 2018)

*Vunderkind Erzhan* is told from the point of view of an anonymous traveler, on a train through the steppes of Kazakhstan. The narrator closely resembles Ismailov himself, who recently established the genesis of his tale: it was inspired by an event that occurred in 1989, while Ismailov was travelling from Tashkent to Novosibirsk. During this trip, he recalled meeting a Kazakh boy, who would become the future protagonist Erzhan: a twenty-seven-year-old man condemned to live in the body of a boy (2022).

In the *povest*, Erzhan’s youth goes by accompanied by the legends of Kazakh tradition and the music of the dombra and the violin, which he learns to play divinely, against the backdrop of the wide steppe. As the narrative unfolds, a growing sense of the importance of autochthonous tradition emerges together with a connection between honoring ancestral customs and respecting the animal world and environment. During a fox hunt, for example, Grandad Daulet captures the fox alive and then follows Kazakh tradition and decides to set it free in the steppe. In contrast with such ‘traditional’ and ecological behavior, we have the egregious hubris of Shaken, who chooses to take a fox cub away from its mother as a new pet for his daughter. The fox cub will die that same evening, mauled by the family dog Kapty in the courtyard, an event in the narrative that accompanies the plot like an ominous shadow.

Erzhan’s contamination and his condemnation – imprisonment in a child’s body – result directly from the abuses against humanity perpetrated in the implementation of nuclear power in this region. That nuclear power has interfered in the child’s life soon becomes apparent, first in the familial sphere, where it repeatedly comes up in heated evening discus-
sions that Erzhan silently witnesses. Support for policies fostering atomic power comes from uncle Shaken, who represents the values of modernity and foresee improvements in future technology.

Shaken, who was blamed for everything that was happening, lit up like the steppe itself when there was a blast. He preached to the others that it was more than just an atom bomb. It was our Soviet response to the arms race, without which we would all have been gone a long time ago. But the blasts were necessary for peaceful purposes too. In order to build communism! (2014, 35).

These values of modernity are strongly criticized in the *povest*’ and diminished through comparison with the spiritual world of Kazakh tradition, embodied by grandfather Daulet, who argues: “Нет на свете ничего, из-за чего стоило бы воевать! Я понимаю – железная дорога: и людей возит, и товары – всем польза! А какая польза от твоего атома-патома?! Всю степь сделали нежилой! Ни песчанки, ни лисы уже не встретишь!” “There’s nothing in the world worth fighting a war for! I understand the railway, it transports people and cargo – that’s good for everyone! But what good does your atom-schmatom do? You’ve turned the entire steppe into a desert! You never see a gerbil or a fox [anymore]!” (2014, 35).

In Central Asia, the railway is the quintessential symbol of Russian imperial expansion, a means of controlling the vast territories conquered over the course of the 19th century (Sahadeo 2007, 120). The railway represents “the advent of modernity, man’s conquest of nature, danger and catastrophe” (Djagalov 2020, 125). In this respect, it can be seen as similar to nuclear power: The railroad and nuclear power embody technological progress achieved at two different historical moments, each of which creates new and specific dimensions of space and time. Nuclear power represents a still more evolved stage of technological development, whose...
potentially annihilating force can engulf and destroy everything. It represents the last step on the path of a developmentalism that has taken on increasingly dehumanizing characteristics in its progression. It is precisely the dehumanizing cost of development that is the subject of Ismailov’s *povest*’. The narrative does not revolve around an individual character, but rather focuses on the general context; nature is not merely an unchanging backdrop against which characters develop over time, but is, on the contrary, itself a changing and evolving character. The vicissitudes of the protagonist Erzhan do not lose value, however, but they acquire profound meaning when reinterpreted within the complex framework of collective events and its network of correspondences, as is typical of ecological literary representations (Scaffai 2023, 35).

As the narration progresses, the contrast between the unnaturalness of the detonations and the peaceful environment of the steppe comes into focus more and more intensely. The steppe landscape, in the boy’s memory, is not desolate and desertic, but extremely beautiful, as he lyrically recalls:

> те, кто живёт здесь веками, знают, как изменчива и богата степь, как текуче и разноцветно небо над ней, как переменчив и подвижен воздух вокруг, как разнообразна и неисчислимая степная растительность, как много кругом всякой живности и зверья. То пыльная буря возьмётся нелегка, то жёлтый смерч завернёт воздух издалека, как женщины вертят в верёвки верблюжью шерсть, то огромное и тяжёлое небо нависнет всем своим весом над притихшей и покорной землёй. (Ismailov 2011).

For anyone who has never lived in the steppe, it is hard to understand how it is possible to exist surrounded by this wilderness on all sides. But those who have lived here since time out of mind know how rich and variable the steppe is. How multicoloured the sky above. How fluid the air all around. How varied the plants. How innumerable the animals in it and above it. A dust storm can spring up out of nowhere. A yellow whirlwind can suddenly start twirling round the air in the distance in the same way that women spin camel wool into twine. The entire, imponderable weight of that immense, heavy sky can suddenly whistle across the becalmed, submissive land...

> (Ismailov 2014, 34).

The encroachment of irresponsible and violent technologies is rendered all the more caustic through Ismailov’s sharp binary opposition of the natural environment, frequently described in association with the harmonic music that Erzhan plays, to the nefarious world of man-made inventions, manifested in the sudden cacophony of nuclear explosions. Such blasts occur at all hours of the day, without any regularity or notice.
Erzhan recounts that occasionally, on the radio, a word foretells the explosion: “Взрыв, Толигон” (explosion, Toligon); a fictionalized name that recalls that of Polygon 2, the nuclear testing center in Semipalatinsk. The consequences of these detonations are devastating, and Ismailov describes their destructive power first on a human level: “Моча их покраснела, словно бы от стыда, особенно у Ержана” (Ismailov 2011); “Their urine – and especially Yerzhan’s – turned red, as if from shame” (2014, 21). The protagonist is tormented by nightmares of mushroom clouds, in which the soil trembles and the windows break when he is at school.

The narrative achieves its highest level of pathos in the close encounter of humans with the highly radioactive surroundings. Erzhan’s class is taken on a field trip to the restricted area where nuclear detonations occur: the Zone. After a tour of the nuclear station, the children are briefly left unchaperoned in front of the ‘Dead Lake’ (Mёрвое Озеро), whose crystal-clear waters attract their attention. Erzhan decides to dive in, inexorably leading him to tragedy: once contaminated by radioactive water, his body will never develop7. With time, when Erzhan realizes that everything around him is constantly changing (including his beloved Aisulu, who surpasses him in height), he abandons school and music, falling into utter depression. Although the inhabitants of Kara-Shagan try to help him in many ways, Erzhan eventually realizes that he has no escape and becomes withdrawn, lonely, and resentful of everyone around him.

As the dramatic force of the povest’ reaches its climax, the perspective on what is happening gradually widens and we see that no victim finds shelter, and that even the steppe is unrecognizable after the explosions. Erzhan is impressed by the ruthless transformation undergone by the surroundings as they are, unnaturally transformed:

Он обнаруживал гигантские кратеры в развороченной степи [...]. Он видел остатки каких-то сооружений, торчащих из расплавленной земли, как культи неведомых существ. А как-то он увидел торчащую из земли наискосок бетонную стену, в которую был впечатан обугленный степной карагач с черными птицами. (Ismailov 2011).

7 In Atomic Steppe: How Kazakhstan Gave up the Bomb Togzhan Kassenova explains that such ‘dead lakes’ actually existed in Central Asia: “Soviet innovators explored how large craters, created as a result of nuclear detonations, could be turned into bodies of water-canals and reservoirs. [...On] January 15, 1965, a 140-kiloton underground nuclear explosion expelled 4 million cubic meters of soil from the ground. The resulting crater measured 400 meters (1,300 feet) wide and 100 meters (330 feet) deep. Nearby rivers filled this newly created reservoir with more than a million cubic yards of water. [...] Local Kazakhs called it “dead lake” but continued to graze their cattle nearby. More than fifty years later, the lake remains contaminated” (Kassenova 2022, 47-48).
He discovered gigantic craters of churned-up steppe [...] He saw strange structures jutting out of the fused earth like limbs of uncanny beings. And still deeper inside the Zone, a concrete wall stood in the middle of the wide expanse, a charred elm tree and black birds imprinted on it. Were they drawings? Or a real tree and real birds stamped into the wall? (2014, 70).

After the explosions, nature itself displays the “traumas of pastoral disruption” and the “gothicized environmental squalor’ that often accompanies traumatic accounts of ‘contaminated communities’ in a world once incomparably beautiful but now irreversibly post-pastoral (Buell 2001, 42-43, 36 quoted in Huggan and Tiffin 2015, 58). The ecological space depicted in Vunderkind Erzhan goes beyond the traditionally depicted landscape, limited by a subjective perception: the environment is perceived from a universal perspective, where human and animal, organic and inorganic, are inextricably interwoven. The experience of the individual, in fact, acquires significance precisely because it is intertwined in this network of correspondences connecting each individual living and non-living being.

The following passage shows how everything is affected by the terrific atomic wave caused by a particularly violent explosion:

The sky above him, all of a sudden and without any forewarning, turned dark. [...] Yerzhan was all alone in the immense, wide world – if you didn’t count his frenziedly wailing donkey. But not for long and soon even the wailing of the donkey was lost in the roaring and howling of the wind. The ground shook and thunder roared. [...] The violin crunched and gave a final squeal, and a ferocious, swirling vortex of air hurled past, whooping deafeningly as it shaved off everything above them, making way for a grey, dusty light to rise over the world. Then a hot drizzle fell. Yerzhan lay sprawled in
the pit, mingled with the mud, blood and tears. His donkey had instantly gone bald. [...] Two shattered and melted tractors and the black ashes of the trailers scattered across the steppe. He could hear a solitary wolf howling somewhere as it died, leaving no trace. Upon his return to the way station, he immediately noticed that [his dog] Kapty’s fur had come off and everywhere – from the railway tracks as far as the house – the grass had grown thick and tall in just a day... He alone hadn’t grown... (2014, 83-84).

As the narration proceeds, we realize that the nuclear ‘curse’ has not spared Erzhan’s beloved either: Aisulu keeps growing extravagantly tall “on the outside and on the inside too, like the wild grass after the blasts, pregnant with her own incurable sickness” (Ismailov 2014, 90). And she later lies dying in a hospital, condemned as is Erzhan. At this juncture her thoughts go back to Erzhan, but also to the steppe, to the road and the donkey that used to accompany them along it, to the wolf they encountered, to the fox cub and to their dog Kapty.

Again the steppe. The little donkey. Yerzhan has turned his back. [...] Steppe, steppe. Red dots indicate graves. One starts to move. Okay, that’s a wolf. The same one. That time they had run away from him. Or rather, they had made him run from them. But he, it turns out, has been hiding all these years, and now he has pierced inside her and is gnawing at her soul and body, so long that it no longer fits on the bed. [...] Where did Kapty, their faithful dog, come from all of a sudden? He had bit the fox cub, and then, upon smelling the mother fox, he began to whine as if before an explosion. He’s whining now, and whining...9

8 In the Russian version we find a slightly different passage: “Так, стало быть, Айсулу, его неудержимо растущая, как дикая трава под окнами, его бедная и несчастная Айсулу...” (2011). Indeed, the two versions present several differences.

9 This specific passage is not present in the English translation, edited by Bromfield (2014). Nevertheless, the following version, equally significant, is found: “Aisulu looked up again at the ceiling, which was turning bluish just as the last yellow ray of sunlight fell across it like a fox’s tail, and the fox cub that had brought her so much joy appeared before her eyes, the one that had crept out of their house unnoticed so many years ago. And Kapty bit it to death. How much weeping and wailing there had been that evening while Kepek buried the fluffy little body, only the size of a kitten. And each night that the mother fox could be heard howling for...
Niccolò Scaffai points out that narratives about the environment tend to have a specific nonfiction component. The fact that these narratives focus on the entire ecosystem rather than on individual events requires that the narrator – as well as the reader, in my view – possess “a vocation for investigation”. In fact, narratives about the environment seem to track characters and events that mutually influence one another over long periods of time, beginning from distant situations and premises. Ecological narratives thus allow us to understand a variety of concomitant factors that have determined the nature of the reality at the center of the tale. In short, they express a complex concatenation of events in a logic of ‘hypercausality’, which represents the mutual connection between the interacting elements in the ecosystem (2021, 36). From this perspective, Ismailov’s Vunderkind Erzhan is a sterling example of such an ecological narrative. And, as the above passage further demonstrates, the power of the povest’ in underlining the unescapable interconnectedness of all earthly beings, human and non-, in a sequence of events ‘hypercausally’ triggered by human meddling in the ecosystem. Erzhan, the steppe, the donkey, the wolf, the fox cub, and the dog Kapty are symbols of this profound connection among all earthly beings, who, tied to the same destiny and equally suffering the effects of human-caused environmental catastrophe, eventually reunite, their echoes resounding in the dying body of Aisulu.

Bibliography


her dead baby, Kapty howled too, like he did before an atomic explosion. And now Kapty had started howling in her immense, empty body (90-91).


