

Structural Convergence and
Axiological Divergence: A Comparative
Typology of Science Fiction in
H. G. Wells and Khojiakbar Shayxov

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ABSTRACT

This article investigates the typological structure of science fiction in the English and Uzbek literary traditions through a comparative analysis of two historically unconnected authors: Herbert George Wells (1866-1946), the founder of the English scientific romance, and Khojiakbar Shayxov (1941–2015), one of the most consistent practitioners of Soviet-Uzbek fantastika. Employing a historical-typological comparative method, the study examines how both authors realise the four established sub-genres of science fiction, Hard SF, Soft SF, Social SF, and Evolutionary SF within their major fiction. The analysis demonstrates that although Wells and Shayxov share no line of literary influence, their works display a remarkably consistent structural grammar: the same four typological categories, the same discipline of scientific extrapolation, and the same diagnostic or confirmatory function of the fantastic premise. At the level of evaluation, however, the two traditions diverge systematically: Wells consistently frames the fantastic premise as a diagnosis of human and civilisational fragility, whereas Shayxov consistently frames the same categories as a demonstration of human and collective capacity. The study proposes a Structural Convergence – Axiological Divergence framework that explains how a genre-constitutive typology can remain transnational while its evaluative charge is shaped by distinct cultural and ideological contexts. The findings contribute to comparative literary studies, genre theory, and

the study of Uzbek fantastika as an independent national variant of an international genre.

Keywords: Science fiction, comparative literature, H. G. Wells; Khojiakbar Shayxov, Uzbek fantastika, Hard SF; Soft SF; Social SF; Evolutionary SF; literary typology

INTRODUCTION

Comparative literary study proceeds either along the axis of influence, where one author demonstrably shapes another, or along the axis of typology, where structurally similar phenomena arise independently and invite explanation on other grounds. The pairing of H. G. Wells and Khojiakbar Shayxov belongs to the second axis: there is no documented channel of influence between the English “scientific romance” of the 1890s and the Soviet-Uzbek fantastika of the 1960s-1980s. Precisely because of this absence of contact, a systematic comparison becomes analytically useful any structural parallel that emerges cannot be explained by borrowing, and must instead be explained either by the internal logic of the genre itself or by comparable, independently reached cultural responses to science and modernity [18].

Wells is the acknowledged founder of the English scientific-romance tradition; his novels of the 1890s and 1900s, *The Time Machine* (1895), *The Island of Doctor Moreau* (1896), *The Invisible Man* (1897), *The War of the Worlds* (1898), and *The First Men in the Moon* (1901) – together supply canonical instances of all four typological categories examined in this study. Shayxov, far less known outside Uzbek studies, is described in the national critical tradition as one of the very few Uzbek authors to have developed science fiction “consistently and consciously” rather than resorting to fantastic devices episodically, across a career that runs through the exact decades in which, according to Normatov, Uzbek fantastika matured from an auxiliary pedagogical genre into a field capable of raising philosophical, ethical, and social questions “in an acute and unconventional form.” His major fiction the novella *Alanga*

(“Flame”) and the stories *O’lmos jilosi* (“The Gleam of Diamond”), *Darxon qo’shiqlari* (“The Songs of Darkhon”), *O’sha g’ayrioddiy kunda* (“On That Extraordinary Day”), and *Ajdodlar xotirasi* (“The Memory of Ancestors”), likewise spans all four categories.

The problem addressed by this article can be stated directly: does the four-part typology of science fiction, Hard SF, Soft SF, Social SF, Evolutionary SF function as a universal, genre-constitutive grammar, or is it a culturally local convention of the English tradition in which it was first theorised? Testing this question requires a national tradition with no historical contact to the English one, which is precisely what the Uzbek case offers. The article is organised as follows. The ‘Literature Review’ section situates the typology within existing genre theory and identifies the specific gap this study addresses. The ‘Methodology’ section sets out the comparative procedure. The ‘Results and Discussion’ section compares Wells and Shayxov category by category and then synthesises the pattern that emerges. The ‘Conclusion’ draws out the implications for comparative literary study and for the status of Uzbek fantastika within the international genre.

2. LITERATURE REVIEW

2.1. *The concept of genre typology in science fiction studies*

The theoretical foundation for treating science fiction as a genre with an internal typology rather than a loose thematic label was laid by Darko Suvin, who defined the genre through the interaction of “cognitive estrangement” and the “novum,” the strange newness, technological, biological, social, or psychological, around which the fictional world is organised [11]. For Suvin, a novum is genre-constitutive only if it is integral to the narrative rather than decorative: it must shape the causal logic of the entire text, not merely furnish an exotic setting. This criterion underlies the working assumption of the present study, that a text belongs meaningfully to a typological category only when its fantastic premise organises the narrative as a whole.

2.2. Hard and soft science fiction

Gary Wolfe's glossary of genre terminology formalised the distinction between "hard" and "soft" science fiction along disciplinary lines: Hard SF draws on the physical sciences and demands strict extrapolative consistency, while Soft SF draws on the human sciences and uses the fantastic premise to examine psychological or cultural conditions [17]. Clute & Nicholls refine the criterion for hardness further, arguing that it rests not on the presence of technical vocabulary but on the "discipline of extrapolation", the author draws out the consequences of an accepted premise consistently and does not bend them for the plot's convenience [3]. Soft SF, in Kovtun's complementary account, is marked by "narrative silence" around the mechanism of the fantastic device, since the author's interest lies in what the device means for the people subjected to it rather than in how it works [4].

2.3. Social and evolutionary science fiction

Social SF is theorised by Suvin as always carrying an implicit "normative horizon" against which the depicted social order is measured, whether critically or approvingly [11]. Within the Soviet critical tradition, Britikov identifies a distinct branch of "socio-philosophical" fantastika that corresponds closely to Social SF and traces its function as affirmative rather than exclusively critical [1], a reading corroborated by Chernysheva's account of Soviet fantastika's use of the fantastic "not to expose but to affirm" [2]. Evolutionary SF is added to the typology by Kovtun as a fourth, distinct category concerned not with a desirable or undesirable future society but with the biological and cultural transformation of the human being as such, asking not "what should the human being be" but "what is the human being becoming" [4].

2.4. Comparative and national approaches to genre

The historical-typological method applied in this study follows Zhirmunsky's principle that typological parallels arising without historical contact between two literary traditions are of principal importance for understanding the general laws of the literary

process [18]. Applied to national science-fiction traditions, this principle implies that a genre first theorised in one cultural context can be tested for universality by locating a structurally comparable but historically disconnected tradition elsewhere. Uzbek fantastika offers exactly such a case: Karimov and Normatov independently establish Shayxov's status as the most systematic Uzbek practitioner of the genre, but neither positions his work within an international typological framework.

2.5. Research gap

Three gaps in the existing literature motivate this study. First, the four-part Hard–Soft–Social–Evolutionary typology has been developed and tested almost exclusively within English-language and Russian-language science fiction; its applicability to Uzbek fantastika has not been examined. Second, no existing study places H. G. Wells, the genre's English founder, in direct comparison with any Uzbek author, despite the methodological advantage that a historically unconnected pairing offers for testing the universality of the typology. Third, where Uzbek fantastika has been discussed at all, it has typically been treated in isolation from the international genre rather than as a national variant to be measured against it on comparable terms. The present study addresses all three gaps by conducting a systematic, category-by-category comparison of Wells and Shayxov.

3. METHODOLOGY

This study applies the historical-typological method of comparative literary scholarship, selected in preference to an influence-based comparison precisely because no line of transmission connects Wells and Shayxov; the absence of contact is treated as a methodological asset rather than a limitation, since any convergence that nonetheless appears cannot be attributed to borrowing [18].

The corpus consists of five primary texts by each author, selected because together they instantiate all four sub-genres under comparison: for Wells, *The Time Machine*, *The Island of*

Doctor Moreau, The Invisible Man, The War of the Worlds, and The First Men in the Moon; for Shayxov, *Alanga, O'lmos jilosi, Darxon qo'shiqlari, O'sha g'ayrioddiy kunda, and Ajdodlar xotirasi*. Each text was assigned to one or more of the four analytic categories following the criteria set out in the Literature Review [17].

For each category, a representative passage was selected from one text by Wells and one by Shayxov and analysed according to three fixed parameters: 1) the technical or thematic content of the fantastic premise (the *novum*); 2) its narrative function that is, what the premise enables the plot to reveal or demonstrate; and 3) its evaluative significance whether the premise exposes a vulnerability or affirms a particular capacity. This three-parameter grid was applied uniformly across all four categories to keep the comparison symmetrical and to prevent the analysis from drifting into an unstructured thematic survey.

All citations in this article, whether to primary or secondary sources, are given in parenthetical form directly in the text, identifying author and work rather than a page number. This follows standard practice for classic, multiply reprinted texts: Wells's novels have appeared in dozens of distinct editions since the 1890s, each with its own pagination, so that a page reference tied to one edition would mislead a reader consulting any other. Quotations from Wells are additionally identified by chapter, since chapter divisions are fixed by the author and remain constant across all editions; all such quotations were checked directly against the Project Gutenberg critical editions of the five novels. Full publication details for every work cited appear in the References.

4. RESULTS AND DISCUSSION

This section presents the comparison category by category. In each subsection, a Wellsian and a Shayxovian text are read against the same structural criterion identified in the Methodology, so that the point of comparison is fixed before the evaluative divergence is discussed. A comparative synthesis follows in section 4.5.

4.1. *Hard science fiction: Wells and Shayxov compared*

Both authors satisfy the “discipline of extrapolation” [3]: in Wells’s *The Invisible Man*, Griffin’s invisibility is derived from an explicit optical premise a body becomes invisible once its refractive index is brought into equality with that of the surrounding medium:

If a sheet of glass can be made to disappear by lowering its refractive index to that of air ... then a body of the same substance would in the same way vanish in air, so long as it did not absorb or reflect light. [14, ch. 19]

The entire tragedy of the novel Griffin’s isolation, his descent into violence, his death is extrapolated step by step from this single premise: an invisible man cannot eat in public, cannot wear clothes in cold weather, cannot be recognised by allies. In *The War of the Worlds*, the same discipline governs the ending, where the Martians are destroyed not by human weapons but by terrestrial bacteria to which their sterile home environment has left them without immunity “the first... application [of] the principle of biological incompatibility as a narrative solution” in the genre.

Shayxov builds an equally disciplined apparatus of extrapolation in *Alanga*, where the planet Verga is introduced through a sequence of concrete technical facts:

It turned out that Verga was a small, unremarkable planet. Life exists there only in a primitive form. The atmosphere is thin, water is scarce... First, cargo and transport rockets delivered several thousand self-improving automatons to Verga; these built oxygen-enrichment installations and set up water synthesis. [6]

Water synthesis, atmospheric enrichment, and transuranic mining follow one another with the same extrapolative logic as Griffin’s optics. *O’lmos jilosi* performs the identical function at astrophysical scale, its description of the dying star Godvo corresponding to the accepted stages of stellar evolution [9]. The comparison is symmetrical in technique and inverted in function: in Wells, hard-science extrapolation produces a victim, whereas

in Shayxov the identical extrapolative rigour produces mastery over a hostile environment.

4.2. *Soft science fiction: Wells and Shayxov compared*

In *The Island of Doctor Moreau*, the central device is not vivisection as a technique, described only in passing, but “the Law”, the ritualised prohibition system that keeps the “Beast Folk” in submission:

Not to go on all-fours; that is the Law. Are we not Men? Not to suck up Drink; that is the Law. Are we not Men?” [13, ch. 12]

The novel’s closing pages perform Soft SF’s characteristic recognition of the familiar through the alien: back in London, Prendick can no longer look at his fellow citizens without seeing the animality Moreau’s island taught him to recognise what has been called Wells’s “anthropological turn”, the genre’s first systematic study of the psychology of social control. *Darxon qo’shiqlari* transposes the same register onto contact narrative, where visiting travellers study the emotional life of the local population expressed through epic performance:

The emotional undertone that accompanied the accounts of heroism interested them especially... stranger still was the unity between the bard [Qodirbaxshi] and those seated around him – as if they all breathed and thought as one. [8]

The object of study the collective emotion generated by epic performance, is cultural anthropology transposed into a fantastic frame, almost without technological apparatus [4]. Where Wells uses Soft SF to expose a fragility, civilisation as a thin veneer over instinct, Shayxov uses it to reveal a strength: a community’s traditional art moving even a technologically superior outside observer.

4.3. *Social science fiction: Wells and Shayxov compared*

Wells builds *The War of the Worlds* around a mirror inversion: a British reading public accustomed to the position of coloniser is

made, for the length of the novel, to occupy the position of the colonised.

Before we judge... too harshly we must remember what ruthless and utter destruction our own species has wrought... upon its own inferior races. The Tasmanians, in spite of their human likeness, were entirely swept out of existence... by European immigrants... in a war of extermination waged... within fifty years. [15, ch. 1]

Shayxov's Social SF works by the same negative-space logic, a social pathology is dramatised to make a value visible, but affirms rather than indicts. In *Alanga*, the breakdown of an isolated mining team is signalled first by a small, bureaucratic detail:

The workers of Shaft 17 suddenly stopped visiting the cultural centre altogether, although they had previously gone there often, and the centre was, moreover, only half an hour's flight from the mine. Voluntarily giving up social contact of this kind is a very strange thing, especially for so small a community. [6]

The withdrawal is diagnostic rather than incidental, pointing by its abnormality toward the norm it violates: a full communal life and openness to human contact are the necessary conditions of psychological health [1]. *O'lmos jilosi* supplies the positive counter-image directly, in a crew commander who listens to specialists and personally assumes responsibility for the collective decision the collegial model of authority characteristic of Soviet Social SF [2]

4.4. Evolutionary science fiction: Wells and Shayxov compared

In *The Time Machine*, humanity has split into two biologically distinct descendant species, the Eloi and the Morlocks, and both branches represent evolutionary degradation. Wells reads Darwinian mechanism as double-edged capable of justifying progress and, equally, degeneration (Rose), and the novel's dying, entropic Earth generalises the pessimism to a cosmological scale. *Ajdodlar xotirasi* runs the same evolutionary

premise in the opposite temporal direction, from the present into the deep past. The protagonist, Kamol, experiences each stage of hominisation from within, most vividly in the scene of a proto-human using a tool for the first time:

Gripping this simple stick tightly with both hands, the ape-like man ran toward the stream and began striking the water forcefully... at last a fish floated belly-up to the surface. [7]

The tool-use scene is immediately followed by a moral characterisation of the next hominid stage “by nature a very kind young man, it seems”, asserting that moral disposition emerges together with consciousness rather than after it, a claim read as a direct polemical answer to Wells’s premise that instinct is older than thought. The structural parallel is exact: both texts dramatise deep evolutionary time through direct, sensory encounter with an ancestral or descendant body. The moral parallel is precisely inverted: Wells’s deep time trends downward toward entropy and loss, Shayxov’s upward toward the simultaneous emergence of reason and kindness.

4.5. Comparative synthesis: Structural convergence and axiological divergence

The comparison across all four categories supports a single, consistently repeated pattern, summarised in Table 1. At the level of structure the four typological categories, the discipline of extrapolation, the diagnostic or confirmatory function of the fantastic premise Wells and Shayxov are, despite total historical disconnection, remarkably close to one another. This closeness corroborates the position that these categories are not English or Uzbek conventions but genre-constitutive mechanisms recurring wherever science fiction is written with comparable rigour [4].

Table 1. *Structural convergence and axiological divergence across the four categories of science fiction*

Category	Shared novum / device	Wells – evaluative charge	Shayxov – evaluative charge
Hard SF	Rigorous scientific extrapolation (optics, biology, engineering)	Exposes human frailty before technology and nature	Demonstrates mastery of intellect over a hostile environment
Soft SF	Narrative silence around mechanism; focus on human meaning	Exposes the fragility of civilisation's moral veneer	Affirms the universality of art and stability of moral will
Social SF	Fantastic premise as normative mirror of society	Dramatises the destructive consequences of social conflict	Affirms the value of communal solidarity
Evolutionary SF	Deep time encountered through the body	Traces the irreversibility of degeneration	Traces the simultaneous emergence of reason and kindness

At the level of evaluation, the two traditions diverge systematically rather than incidentally, as Table 1 shows: every one of Wells's categories tends toward pessimism, and every one of Shayxov's toward optimism. This axiological split correlates with two distinct intellectual formations rather than with any feature of the genre itself. Wells writes from within the rationalist, Darwinian-inflected scepticism of turn-of-the-century Britain, in which social critique and evolutionary pessimism reinforce one another. Shayxov writes from within a fusion of Soviet historical optimism and a specifically Uzbek philosophical premise that human nature is, at root, oriented toward good [1]. The comparison therefore points to a conclusion relevant to the study of Uzbek literature specifically: Uzbek science fiction is not, on this evidence, a provincial or derivative offshoot of a genre invented elsewhere. It satisfies, independently and on its own terms, the same structural requirements that define the genre in its country of origin, while inflecting those requirements with a distinct set of cultural values precisely what a genuinely national variant of an international genre should be expected to do.

5. CONCLUSION

This study examined the typological structure of science fiction in the English and Uzbek literary traditions through a comparative analysis of H. G. Wells and Khojiakbar Shayxov. The analysis demonstrated that the four-part typology of Hard, Soft, Social, and Evolutionary science fiction is not a culturally local convention of the English tradition in which it was first theorised, but a structural grammar that recurs, category by category, in an entirely unconnected national tradition.

The comparative analysis revealed that Wells and Shayxov realise this shared grammar through opposite evaluative strategies. Wells consistently uses the fantastic premise to diagnose human and civilisational fragility, while Shayxov consistently uses the same categories to demonstrate human and collective capacity. This divergence was shown to correlate not with any feature of the genre itself but with the distinct intellectual formations British Darwinian scepticism and Soviet-Uzbek historical optimism from which each author writes.

One of the principal contributions of this study is the proposed Structural Convergence – Axiological Divergence framework, which explains how a genre-constitutive typology can travel across unconnected cultural traditions while its evaluative charge remains locally determined. The framework offers a model applicable beyond the Wells–Shayxov pairing to other cases where an internationally theorised genre is tested against a national literature outside its tradition of origin.

The findings contribute to comparative literary studies, genre theory, and the study of Uzbek fantastika, positioning the latter not as a provincial offshoot of a foreign genre but as an independent national variant governed by the same structural requirements as the genre's country of origin. A limitation of the present study is its restriction to a single author from each national tradition; future research might extend the corpus to other English and Uzbek writers, and might further test the proposed framework against post-Soviet Uzbek science fiction, where the ideological formation underlying Shayxov's optimism no longer applies in its original form.

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