

/ Björk's *Biophilia*
in the light of the
performing arts -
A step toward
a new paradigm

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Summary: Multimedia project *Biophilia* (2011) by Icelandic artist Björk is a unique creative venture that unites music, science, ecology, technology, and innovative approaches to teaching. Even though it is primarily made as Björk's seventh studio album, *Biophilia* is not only a collection of ten songs about various natural phenomena (from Moon cycles to DNA replication) but also a platform packed with interactive materials that can greatly enrich the experience of the songs. For each song on the album, there is a special application excitingly illustrating its prominent features. The application allows you not only to rearrange the final form of the song but also to analyze the song in relation to its lyrics and musical notation. The intersecting of music, video games, and educational materials has already been used as an inspiring teaching tool in many, primarily Scandinavian schools. However, in addition to the music album, teaching device, and application, *Biophilia* includes many other innovations and activities: from using new and unconventional musical instruments, through recording music videos and films about the project, to an ambitious concert tour, Björk shows an outstanding capacity for interconnecting music, visual, and performing arts. Apart from presenting the multimedia character of Björk's project, this paper will also point out its possible connections with ecological humanities.

Keywords: Björk, *Biophilia*, biophilia as a term, app album, interactivity, technological innovation, teaching device.

When Björk Met Attenborough,
directed by Louise Hooper,
and *Björk Biophilia Live,*
directed by Peter Strickland
and Nick Fenton.





Introduction

Icelandic singer-songwriter, actress, and multimedia artist Björk (1965) has been well-known in the music industry for decades. From the very beginning of her career as a child singer in Iceland, where her first (eponymous) studio album was released in 1977 until her latest studio album *Fossora* (2022) which was released exactly 45 years later, Björk has constantly demonstrated an extraordinary artistic sense for innovation and self-invention. Each of her solo studio albums is highly conceptual: whenever she records an album, a new form of musical language is made, as well as a completely new music persona. This becomes obvious just by looking at her album covers: from a humble, unpretentious photo of the artist in *Debut* (1993), Björk's first recording after her previous band's breakup (The Sugarcubes), through to the delicate, sensual cover art for *Vespertine* (2001), where the singer wore an iconic swan dress created by Macedonian fashion designer Marjan Pejoski, to the expressive costume with a dandelion-like headpiece in *Vulnicura* (2015), one can witness a truly exciting and unpredictable creative evolution. It is crucial here to remember that Björk's visual identity is inseparable from her music – she uses visual language to make her music more suggestive. That is especially important if we think about changes of instrumentation in her work. For example, one of the most famous of Björk's albums, *Homogenic* (1997), relies on strings in relation to electronic beats, while *Volta* (2007) is recognizable for its use of a brass section. However, the album with the most unusual musical language is probably *Medúlla* (2004), which is almost entirely recorded *a cappella*. Despite Björk's artistic work being quite popular and influential, no one has succeeded in sounding the same. Her music might be seen as a genre in its own right, even though it has multiple correlations with avant-pop (Albiez, 2017).

Björk's propensity towards pioneering projects is crucial for understanding her oeuvre. In that sense, *Biophilia* (2011) has a truly special status: a studio album,

an interactive digital installation, the first app album ever (Dibben, 2013, p. 682), and the first downloadable app which is included in a permanent museum exhibition (in MoMA) (Keazor, 2018, p. 206). Moreover, *Biophilia* is a research project on using new or unconventional musical instruments (such as the Tesla coil or gravity harp), but it is also – a musical instrument itself, since certain options of the app can be used for making new music. *Biophilia* also includes live shows, several music videos, and two films (*When Björk Met Attenborough*, directed by Louise Hooper, and *Björk: Biophilia Live*, directed by Peter Strickland and Nick Fenton). Even more than that, *Biophilia* is an unprecedented educational project that combines music, technology, nature, and science, and through various workshops stimulates *experiential learning* (Kristinsdóttir, 2018, p. 399). Bearing all this in mind, a great illustration of the multidisciplinary character of Björk's project might be – to look into the origins of biophilia as a term.

Biophilia as a term

Interestingly, the term *biophilia* was coined by Erich Fromm. Defining *biophilia* as “the passionate love of life and of all that is alive” (Fromm, 1973, p. 365). Fromm reinterpreted Freud's concepts of life (Eros) and death (Thanatos) instincts, as the two fundamental drives of human beings. However, unlike Freud, who claimed that both tendencies have equal rank, Fromm thought that necrophilia is not a normal psychological impulse, but the psychopathological alternative to biophilia, which is biologically endowed in human beings (Fromm, 1973, p. 366). For Fromm, a biophilious person...

... prefers to construct rather than to retain. He is capable of wondering, and he prefers to see something new rather than to find confirmation of the old. He loves the adventure of living more than he does certainty. He sees the whole rather than only the parts, structures rather than

summations. He wants to mold and to influence by love, reason, and example; not by force, by cutting things apart, by the bureaucratic manner of administering people as if they were things. Because he enjoys life and all its manifestations he is not a passionate consumer of newly packaged “excitement”. (Fromm, 1973, p. 365)

This quotation is important not only because it accurately represents the spirit of Björk’s project, but also because of the feeling it emanates – that biophilia is not an exception, but the ubiquitous quality of life. Life aspires to life, and has its own inner tendency for growth and cooperation. Being creative and open to the world in all its different forms – means to be, metaphorically speaking, in harmony with the world. Even more than that – biophilia can shed new light on the concept of sanity, which has been understood for a long time as an exclusively anthropocentric category (cf. Roszak, 1992, p. 14). Being a biophilic person implies particular environmental, nature-oriented ethics that can make a significant influence not only on our theoretical apparatus but also in our everyday life. Hence, Björk’s *Biophilia* might be understood as a pedagogical platform for supporting biophilic tendencies.

The second most important definition of biophilia is offered by the famous American naturalist Edward O. Wilson. He defines biophilia as “the innate tendency to focus on life and lifelike processes” (Wilson, 1984, p. 1). Probably the main evidence of biophilia (which is also known as the biophilia hypothesis) comes from the fact that the natural world is universally appreciated, which can be seen in mythology as well as in the symbolic use of nature in language (Rogers, 2019). According to Wilson, there are two fundamental concepts of biophilia: fascination and affiliation (Barbiero & Berto, 2021). As forms of emotional participation, these concepts have their own phylogenetic history, which is rooted in human evolution (Barbiero & Berto, 2021, p. 13). It is

conceivable that biophilia has ancient roots that can be reactivated with art. This intersecting between nature (biophilia) and culture (art) is highly important not just for *Biophilia*, but for Björk's music in general. From her hit single *Human Behaviour* in 1993, telling a story about human activities from a non-human perspective to *Biophilia's* complex relations with various natural phenomena, Björk persistently challenges our prejudices about the anthroposphere and the natural world.

The Structure of *Biophilia*

As a studio album, *Biophilia* consists of ten songs. Each song is about a different natural phenomenon. Simultaneously, every track presents 1) a term in musicology, 2) a concept in natural sciences, and 3) an idea in humanities and social sciences. This entangled, interconnected, and unusual structure is represented in the form of a table (Table 1), for some clarity. The table is made using materials from the official website of The Biophilia Educational Project¹.

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 1 Despite being tightly connected with the album, this project is not inseparable from it. Promoting the values of a sustainable society, as well as musical exploration and imagination, together with the newest technology, The *Biophilia* Educational Project uses music and apps for making new educational pathways. At the official website of the project, one can find useful advice for promoting the project in a school setting, which can be quite beneficial for developing a holistic school curriculum that is not rooted in the strict separation of school subjects (Kristinsdóttir, 2018, p. 402). Even though the project was primarily oriented towards children aged 10-12 years (BEP, 2021), some researchers used the ideas behind the project for much older participants – college students (Hageman, 2016). However, it is essential to adapt the teaching plan to the age of the participants. Also, as many of *Biophilia* workshops were organized in science museums, special attention should be given to this aspect of the project. Therefore, in a pedagogical sense, the learning environment can be seen as a “third teacher” (Kristinsdóttir, 2018, p. 400) that stimulates participation and learning through experience. However, it should be noticed that some researchers evaluate the pedagogical function of *Biophilia* negatively (Keazor, 2018, p. 208).

TRACKLIST	MUSIC	NATURE	SCIENCES	HUMAN
Moon	sequences	lunar phases	astronomy	renewal
Thunderbolt	arpeggios	thunder, lightning	physics	miracles
Crystalline	structure	crystals	chemistry	freedom
Cosmogony	equilibrium	Big Bang	cosmology	creation myths
Dark Matter	scales	Dark Matter	astrophysics	non-verbal communication
Hollow	rhythm, time signatures	DNA	biology	ancestry
Virus	generative music	viruses	biology	symbiotic relationships
Sacrifice	notation	evolution	biology	equality of the sexes
Mutual Core	chords	tectonic plates	geology	tension
Solstice	Counterpoint, bassline	Earth orbit, tilt	astronomy	man and cosmos

Table 1 - The Structure of *Biophilia* (BEP, 2021)

Biophilia exists not only as a studio album but also as a suite of apps² united by the main, constellation-like app that represents the song “Cosmogony”. When opening the main app, the voice of David Attenborough is heard reading some kind of manifesto of the project, explaining what *biophilia* means. Bearing in mind his popularity as an author of nature documentaries, Attenborough as an opening narrator and symbolic host of the world of *Biophilia* is an

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2 It should be emphasized that *Biophilia* as an app album would have not been possible without interactive artist and app developer Scott Snibbe, as well as a large number of collaborators (Snibbe, 2022).

interesting choice. From the very beginning, a horizon of expectations that includes pedagogical apparatus of nature documentaries is made (Tainen, Kontturi & Hongisto, 2015, p. 20). Even though *Biophilia* is profoundly about interactivity and a proactive approach to music (Dibben, 2013, p. 687), it should not be overlooked that behind every app lies a *story* about the very concept of biophilia as a love for nature in all of its manifestations. In her intriguing work, Björk re-examines the connection between narration and non-narrative structures, nature and culture. Therefore, one of the essential aspects of the whole project is the lyrics of the songs, which can be read as a pure poetry.³

Besides the lyrics, for each song in the *Biophilia* app a double musical score has been created: a conventional one and a non-traditional type of musical notation created by Stephen Malinowski. A user of the app can analyze the structure of the songs, or play them with their own instruments. That is one of the special qualities of *Biophilia*: every user creates their own experience according to their personal interests. Moreover, in order to fully experience *Biophilia*, one cannot be a passive consumer, but an active participant in the artistic process. A listener becomes a user and a researcher. Consequently, the conventional interrelation between an artist and a recipient is redefined. While using the app, the users are drawn into a special kind of participatory artistic practice.

One of the most fascinating facts about the *Biophilia* app design is that it is always connected with the nature of the song. For example, the app for “Moon”,

3 Curiously enough, every verse of “Cosmogony” is based on a different etiological myth: 1) the Miwok creation myth, 2) Sanskrit creation myth, 3) Aboriginal creation myth, and, surprisingly, 4) Big Bang. This juxtaposition shows one of the crucial ideas of *Biophilia* – scientific discourse can also be experienced as a myth. Almost all of the lyrics for the album were written by Björk. Exceptions are: “Solstice” written by Sjón, “Thunderbolt” written by Björk and Oddný Eir Ævarsdóttir, and “Cosmogony” and “Virus” written by Björk and Sjón. Both Sjón and Oddný Eir Ævarsdóttir are famous and critically acclaimed Icelandic writers.

the first track of the album, is about musical sequences, that are illustrated by stylized lunar phases. For every phase, there is a tone that can be played. One can create a completely new melody just by choosing different lunar elements in the app. The same can be said for the “Thunderbolt” app, where one can play arpeggios (broken chords) by using more than one finger on the touchscreen. Choosing a touchscreen to make music, Björk characterized “as offering a more spontaneous and embodied mode of engagement” within and without the educational sphere (Dibben, 2013, p. 694). This is of no surprise since Björk has been using touchscreens and other interactive electronic physical devices to perform and compose since 2007 (Dibben, 2013, p. 686).

The third song of the album, “Crystalline”, has an app that resembles an arcade game. This app is organized as a game of navigation through tunnels where users collect various crystals in order to change the structure of the song. Not only do the players have a synesthetic experience but also an opportunity to contemplate the relationship between verse and chorus as one of the omnipresent structures of popular music. The crystal which is made at the end of the game is, basically, a materialized song. Hence, playing the app unites tactile, audio, and visual sensations.

“Dark Matter”, the fifth song of the album, is – according to its name – the most mysterious. It is the only *Biophilia* song sung in an unknown language and the only song without a time signature. The app made for the song is about musical scales that are visualized as a pseudo-magnetic field. The user of the app might play with the musical scales, and through that become aware of alternative, non-Western musical scales. Here, a quite important aim of *Biophilia* shines through: to show alternative perspectives that are not anthropocentric and Eurocentric.

In an educational context, this app can be used as a precious and inspiring basis for a guided discussion about non-verbal communication or non-human language systems. Students more drawn to astronomy can make a whole presentation about dark-matter as a phenomenon, and those who are more interested in music might try to make their own song based on an unconventional musical scale. This teaching pattern can be applied to every song of *Biophilia*.

The songs numbered six and seven of *Biophilia* are about the microscopic world. While the first one, “Hollow”, about DNA replication, is composed in an unconventional rhythm with eerie melody, the second one, “Virus”, is a more accessible but still unsettling love story between a cell and a virus. It is quite indicative that Björk’s vision of nature in *Biophilia* is never human-sized but always linked to micro or macrostructures (Dibben, 2013, p. 690). Some researchers claim that Björk’s artistic vision is not to observe nature and thus colonize it, but to sing together with non-human surroundings in the need of reciprocal understanding (Susdorf, 2017, p. 115-116). Consequently, *Biophilia*’s ambitions are more far-reaching than experimenting with music. In the light of Timothy Morton’s philosophy⁴, Björk’s project might be seen as a contribution to the redefinition of life as an ontological and biological phenomenon. There is literally more non-human DNA in a human being than there is human DNA, which sounds paradoxical, but only if we overlook the circumstance that “[a] human being is an ecosystem of nonhumans, a fuzzy set like a meadow, or the biosphere, a climate, a frog, a eukaryotic cell, a DNA strand” (Morton, 2016, 71). That is why *Biophilia* is an invitation for finding a new identity that can reconfigure the relationship between a subject and an object (Susdorf, 2017, p. 117). No matter how eccentric it might seem, a love song about a virus and a cell

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 4 It is interesting how *hyperobject*, one of the most influential concepts of Timothy Morton’s philosophy, was named after Björk’s 1996 hit single “Hyperballad” (Morton, 2018).

is not just a metaphor for the dynamics in a loving relationship, but also a call for more inclusive thinking about life. The sooner we realize that we are not singularities but multitudes, the better it would be both for us and for the non-human world.

The same intention is also visible in Björk's fashion choices for *Biophilia* live shows. Her dresses have "a major role as a connector between the human and nonhuman, allowing for the becoming of the more-than-human" (Tiainen, et al, 2015, p. 31). Therefore, even her unusual orange, nebula-like hairstyle or stage costumes are correlated with the main ideas of the project. The fascinating interconnectedness of the different artistic dimensions of *Biophilia* might be understood as a particular form of interactive and educational *Gesamtkunstwerk*, where the encyclopaedic totality of the world is envisaged and performed on the stage.

As one of the central ideas of *Biophilia* is an audio-visual correlation, it is interesting how some song apps have elements of irony. For instance, the app for the song "Virus" stands apart as a bit of an anti-game. As Scott Snibbe mentioned in a tutorial for the song, it is a game where a player has to lose in order to win (Snibbe, 2022). In other words, if the player does not let the cell die of a virus attack, the song will stop. Once again, Björk challenges our predominant views about different life forms, as well as symbiotic relationships that shape the way we are.

The eighth song of *Biophilia*, "Sacrifice", is about evolution as a biological phenomenon, but from the perspective of a female experience. It is worth noticing that Björk tends to deconstruct the ingrained opinion of nature as a

“romanticized-woman-like figure, overgrown with myths of fertility” (Susdorf, 2017, p. 114). The picture of the female perspective is much more complex and ambivalent, but above all, it is also one of the alternatives for the dominating worldview. The following “Sacrifice” app is about alternative music notation. A player can compose a song by using the app as a music sequencer. One of the indirect messages of this type of app, especially in the context of Björk’s feminism, is – to find your own voice.

Something similar can be said for the last two tracks of the album: “Mutual Core” and “Solstice”. As in “Sacrifice”, where the world of nature received a cultural and almost political dimension, Björk managed to achieve exceptional poetic images inspired by natural phenomena in these songs. For example, the lyrics of “Mutual Core” have two quite peculiar lines: “As fast as your fingernail grows / The Atlantic ridge drifts”. This unusual connection between the human and non-human world is probably a reference to Ilana Halperin’s work (Thompson, 2009, p. 23), where the same comparison can be found. As an artist who predominantly focuses on connections between geology and anthroposphere, Halperin’s artistic obsession is to find *geological intimacies* that have the power to reconnect us with the world (Thompson, 2009). Even though Björk has not yet confirmed that her work on “Mutual Core” was inspired by Halperin’s art, it is quite interesting that both artists have similar symbols and artistic strategies. In addition to this, it should not be left unnoticed that both Björk and Halperin artistically explore the potential correlations between human and natural rhythms.

The topics explored in *Biophilia* are also in the context of Pythagorean philosophy. The *music of the spheres*, as one of the crucial concepts in the philosophy of music, has its own form in the app for the song “Solstice”. A user of this app

can make music by manipulating celestial bodies on the screen. After that, the app can be used for making new melodies that follow the orbits of the celestial bodies. Once again, the visual and the audio part of the project are intertwined.

Regardless of whether songs in *Biophilia* are about a microworld or a macroworld, Björk's art shows an enormous capacity for finding new artistic and theoretical pathways. Therefore, in every song, one can witness a truly powerful artistic vision that combines ancient myths with the newest technology, which makes conventional limits between humans and nature almost indistinguishable (Tiainen, et al, 2015). The microworld and the macroworld have thus been frequently intercrossed in the human body. Sometimes, as in the "Moon" app or in the "Hollow" app, human anatomy is depicted as a mysterious but integral part of a natural world: in the "Moon" app – by combining bones, water, and the lunar structures; in the "Hollow" app – with Björk's face hidden in the microscopic world. As human perception is inseparable from its physical existence, sometimes the most spiritual experience, especially in the context of the new materialism, might be the most physical one (Susdorf, 2017).

Accordingly, it is not surprising that the music video⁵ for "Mutual Core" (directed by Andrew Thomas Huang) presents a unique mixture of biological, geological, and digital structures, as well as humanoid creatures dwelling in magmatic surroundings. It has already been noticed that Björk's stage persona in *Biophilia Live* has the quality of making all-encompassing relations (Tiainen, et al, 2015, p. 26), which can decentralize an anthropocentric worldview (Tiainen, et al, 2015, p. 35).

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 5 Besides the music video directed by Huang, two more music videos are made for *Biophilia*. The first one is a music video for "Crystalline", directed by Michel Gondry, and the second one is "Moon", directed by Björk, M/M Paris, Inez & Vinoodh, and James Merry.

Conclusion

Biophilia's ambitions and interactive capacities are now obvious. However, after a brief overview of *Biophilia's* potentials, a question might arise: how far has this project come in searching for a new artistic paradigm? Above all, what does a *step towards a new paradigm* actually mean here?

Considering these questions, several conclusions can be drawn.

Firstly, *Biophilia* is a pioneering endeavour in creating, listening, and experiencing music. The conventional relationship between a music performer, a song, and a listener is changed.

Secondly, apart from Björk's own live shows and performances, *Biophilia* as an app album is a type of performing art in its own right. Or, to be more precise: *Biophilia* as an app album is a multimedia platform for participatory practice in which fundamental concepts of artistic communication are redefined and reinvigorated.

Thirdly, *Biophilia* is a valuable contribution to education, an example of how future education might be organized. Instead of passive learning, *Biophilia* encourages experience-based learning, curiosity, breaking boundaries between the school subjects, and learning as creative research. It also affirms environmental ethics as well as non-anthropocentric and non-westernized worldviews. Consequently, the learning process can be significantly democratized and focused on the personal interests and talents of the students.

Finally, *Biophilia* can establish a completely new paradigm in terms of knowledge organization. Its playful encyclopedism might inspire the creation of new, holistic approaches to knowledge, art, philosophy, and science.

References

- Albiez, S. (2017). Avant-pop. In P. Prato & D. Horn (Eds.). *Bloomsbury Encyclopedia of Popular Music of the World: Genres: Europe* (pp. 36–38). London: Bloomsbury Academic. <http://dx.doi.org/10.5040/9781501326110-0111>
- Barbiero, G. & Berto, R. (2021). Biophilia as Evolutionary Adaptation: An Onto- and Phylogenetic Framework or Biophilic Design. *Frontiers in Psychology* 12, 1-13, <https://doi.org/10.3389/fpsyg.2021.700709>
- BEP (2021, April 6). *The Biophilia Educational Project*, <https://biophiliaeducational.org/>
- Dibben, N. (2013). Visualizing the App Album with Björk's *Biophilia*. In C. Vernalis, A. Herzog & J. Richardson (Eds.), *The Oxford Handbook of Sound and Image in Digital Media* (pp. 682-706). Oxford: Oxford University Press.
- Fromm, E. (1973). *The Anatomy of Human Destructiveness*. New York, Chicago, San Francisco: Holt, Rinehart and Winston.
- Hageman, A. (2016). When Eco Media Gets Weird: Björk - Timothy Morton - Anthropocene. *Teaching Media Quarterly* 4(3) <http://pubs.lib.umn.edu/tmq/vol4/iss3>
- Keazor, H. (2018). Portable Music Videos? Music Video Aesthetics for Handheld Devices. *Volume!: La revue des musiques populaires* 14(2), 201-210.
- Kristinsdóttir, A. (2018). Infectious Virus: Biophilia and Sustainable Museum Education Practices. *Museum & Society* 16(3), 398-413. <https://doi.org/10.29311/mas.v16i3.2797>
- Morton, T. (2016). *Dark Ecology: For a Logic of Future Coexistence*. New York: Columbia University Press.
- Morton, T. (2018). Hyperobjects and Creativity. In Copelin, L., Gardner, P. & Morton, T. (Eds.), *Hyperobjects for Artists* (pp. 3-7). Marfa: Ballroom Marfa and The Creative Independent. <https://thecreativeindependent.com/library/hyperobjects-for-artists/>
- Rogers, K. (2019). biophilia hypothesis. *Encyclopedia Britannica*. <https://www.britannica.com/science/biophilia-hypothesis>
- Roszak, T. (1992). *The Voice of the Earth*. New York: Simon & Schuster.

Snibbe, S. (2022, Jun 28), *BJÖRK: BIOPHILIA*. <https://www.snibbe.com/apps/biophilia>

Susdorf, M. (2017). Björk's *Biophilia*: A Musical Introduction to Feminist New Materialism. *Junctions: Graduate Journal of the Humanities*2(2), 113-125. <http://doi.org/10.33391/jgh.39>

Tiainen, M. Kontturi, K. & Hongisto, I. (2015). Framing, Following, Middling: Towards Methodologies of Relational Materialities. *Cultural Studies Review*21(2), 14-46. <https://doi.org/10.5130/csr.v21i2.4407>

Thomson, N. (2009). In Two Directions: Geography as Art, Art as Geography. In Thomas, N. (Ed.) *Experimental Geography* (pp. 27-35). New York: Independent Curators, Melville House Publishing.

Wilson, E. (1984). *Biophilia*. Cambridge, Mass.: Harvard University Press.

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