LIBERTY AND LIMITATION: THE MULTIFACETED REPRESENTATION OF THE SEA IN VIDEO GAMES

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Abstract: *Acknowledged as cultural artefacts only in the late 20th century, video games have since then translated a plethora of great human themes and motifs into an altogether novel medium. In numerous titles, the motif of the sea with its vast symbolism represents one such borrowing. However, compared to literature or painting, for example, video games as a form of artistic expression are merely in their infancy, and this is readily detectable in their endeavour to represent the marine expanse. In fact, in most cases, although the sea is beautifully depicted on the horizon, it is actually used by game designers to signal the end of the traversable world or, in other words, to signal a limit. The aim of this paper is to explore the tension that is thus created between the symbolically charged representation of the sea, most commonly associated with liberty, adventure and the great unknown, and the basic game mechanics that disturb this representation. Furthermore, we examine several titles that attempt a more authentic approach to the matter in order to gauge whether video games are or ever will be able to receive and to continue the rich tradition that has rendered the multifaceted sea across the arts.*

Keywords: *representations of the sea, metaphors of the sea, the sea in video games, video game culture, game philology*

Over the ages, the sea has accrued a vast, at times divergent, symbolism, with representations extending across all forms of art, from literature to painting, cinematography and, most recently, the new medium of video games. If thus far, the depiction of the mysterious, alluring, but dangerous marine expanse has faced little to no hindrance in its transfer from one means of expression to another, its import into video games, on the other hand, has been fairly troublesome. In spite of the problems it raises, however, the portrayal of sea and bodies of water, in general, has been a part of video game development since its inception, when two fundamental issues became obvious. The first was a matter of performance and it had to do with the fact that an accurate, realistic rendition of water itself was extremely difficult to achieve, especially in the early stages of video games, when the computer's processing power was by no means sufficient to handle the necessary information. As technology boomed at an impressive speed over the past decades and developers significantly progressed in their trade in order to keep up the pace, stunning views of the sea made their way into video games, so that, even though there is still room for improvement, the unrealistic depiction of water is no longer a significant problem. The second issue related to the rendition of the sea in video games, however, continues to prove vexing to this day. The latter has less to do with what is visually displayed in games and more with the unseen mechanics behind them, which involve, amongst other things, the existence of a limited game world that must be restricted, one way or another. Most often, the sea sprawling across the horizon has been used as a means to signal this limitation, which quite flagrantly contradicts the traditional symbolism associated

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with the great marine expanse in other arts. The aim of the present paper is to explore precisely this discrepancy as it has manifested itself in the history of game development thus far. At the same time, throughout the second part of our discussion, we take a closer look at a brief selection of recent titles that not only render the sea in a visually spectacular manner, but also recover some of the powerful symbolism associated with it in the past. Ultimately, our intention is to draw attention to the transition of the long-lasting, fluid emblem of the sea into the new medium of video games and to reveal, through meaningful examples, the representational potential resulting therefrom.

A brief preamble into the symbolism of the sea as it has been shaped thus far is therefore necessary. To this end, we turn to the introduction to the volume entitled *This Watery World*, where the editors Nandita Batra and Vartan Messier suggested that, although the sea has certainly existed far longer than the human mind and its reality obviously precedes representation, "our watery world exists in our minds as well as in matter, in fiction as well as in fact" (1). Indeed, the sea has certainly had a significant impact on humanity's social and economic development, but perhaps most importantly, it represents a pervasive symbol of (that is to say, created by) the human mind that has traversed entire ages of culture and art. In time, it has accumulated a plethora of meanings, most of which seem to stem from its one most fascinating quality, its inherent inconsistency and its "containing within itself the seeds of its antitheses" (Cirlot 241). Thus, the representation of the sea denotes "an ambivalent situation" (Cirlot 241), a conflicting state, for example, between its interpretation as an emblem of freedom, exploration and curiosity and the underlying sense of peril associated with it by the earthbound human being for whom it "has always been alien and dangerous" (Ferber 179). Furthermore, according to Michael Ferber, the sea "has symbolized chaos and the bridge among orderly lands, life and death, time and timelessness, menace and lure, boredom and the sublime" (179), a perspective that is agreed upon by J. C. Cirlot, who views the sea as

> the transitional and mediating agent between the nonformal (air and gases) and the formal (earth and solids) and, by analogy, between life and death. The waters of the oceans are thus seen not only as the source of life but also as its goal. "To return to the sea" is "to return to the mother," that is, to die.
>
> (Cirlot 281)

Visibly related to the meaning described above, the maritime expanse has also been assimilated with "an archaic symbol of the womb and of fertility" (Hall 111), the birthplace of Venus or Aphrodite, who was worshipped as the creatrix in several Mediterranean cities (Hall and Clark 276), "the source of the generation of all life" (Cirlot 241), or the "mother sea" (Ferber 180), all of which form an immediate contrast with the idea of a "barren" or "sterile" sea, because of its potential to take lives through drowning (Ferber 180) or the power to "destroy higher forms of land-life," in the case of salt water (Cirlot 241). Still embodied in the symbol of the sea are its antithetic interpretations as "universal life" or "the sum of all the possibilities of one plane of existence" (Cirlot 241) and as "nothingness" or "the primal undifferentiated flux" (Batra and Messier 2). Sometimes viewed as a measure of time through its waves, the maritime expanse has also become "an emblem of infinity and eternity," dwarfing any human achievement and concomitantly luring the human being "as if to a peaceful sleep or death" (Ferber 181-2). It is also worth noting that, throughout the ages, water was often associated with a function of purification or rebirth (Hall 111), as well as with introspection, serving "as a meditation on the self as in a mirror" (Batra and Messier 4), and more recently, with "the ordering of nature by humans" (Batra and Messier 5). Certainly,

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the brief inventory of meanings put forward above is far from exhaustive, but it is nonetheless more than suggestive for the vast symbolism of the sea and sufficient for our incursion into video games and their representation of it or lack thereof.

It would, of course, be unfeasible to attempt to pinpoint the very first depiction of water in a video game, not only due to the large number of such games published every year, but also because of the limited records that document the development of video games, most of which are themselves highly selective. However, when glancing at the industry as a whole, the evermore realistic depiction of water bodies becomes evident, especially since "water is the unlikely element that games have always used as a measure of performance," simply because it is so difficult to get it right (Kotzer, 6). In the early 1980s, the first video games illustrated water by making use of mere blue-coloured shapes, which were then augmented with shades, foam and waves towards the 1990s. During these stages, perhaps best represented by the first *Super Mario Bros.* releases (1985, 1986 and 1988), water was completely inaccessible to the player, which meant either that the player character was separated from bodies of water by invisible walls or that when the player character landed in a body of water, he or she was immediately killed and the game was restarted. In some cases, the inaccessibility of water continued to serve as a "quick fix" for the developer's inability to render the player character's interaction with it in a satisfactory manner. The notorious *Grand Theft Auto* series, for example, practised this even in its 2002 release, *GTA: Vice City*, where the player character was killed if he stepped foot into the water, even though the rendition of rivers and the sea was quite competitive for its time. The developers allowed players to swim and therefore to interact with bodies of water only two years later, with the release of *GTA: San Andreas* (2004). A significant landmark in this regard was Square Enix's 1996 *Tomb Raider*, which marked one of the first instances where the player character could swim in a 3D environment. Transitioning into the 21st century, increasingly impressive renditions of water and the sea became widely available, while video games that banned the avatar's interaction with water gradually disappeared. Although it is true that illustrating realistic liquids remains game development's "Moby Dick" to this day (Kotzer 12), primarily because such a depiction requires an efficient programming of the physics of water, in addition to powerful computer processors, and although it is necessary to acknowledge the origins of such programming in order to understand its current state, we aim to explore the use and symbolic representation of the sea in recent video games, rather than focus on their merits from a game developer's point of view.

Without doubt, "the race for realistic waves" will continue for some time in the industry (Kotzer, 14), but at present, we may conclude that it is no longer an impossible endeavour to decently render the sea or the avatar's interaction with it in video games. This is significant because it allows us to confidently shift our attention to an issue that does persist to this day, namely the use of the sea as a means to denote a limit within the game world. To better gauge this phenomenon, we must first understand that

> like novels, narrative films, and television shows, many video games can be said to have a diegetic world, that is, an imaginary or fictional world in which game events take place, and where the game's characters live and exist.
>
> (Wolf 125)

This setting wherein the game takes place is referred to as a "game world" and is necessarily composed of several elements, including "some kind of geography, inhabitants, action, and logical consequences that are the outcome of actions" (Wolf 125). Similarly to other diegetic worlds, any game world developed thus far is limited in terms of geography or

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traversable space. Surely enough, developers create the illusion that there is a world beyond the active game area by surrounding it with backdrop imagery, and there are video games that boast expansive, "open" worlds, in the sense that they can be freely explored by players, but even these vast universes are ultimately closed and their limits signalled to the player by means of "invisible walls." In video games, "invisible walls" are those areas of the virtual world that cannot be crossed. They can be signalled by literal invisible walls or by obstacles in the environment, such as steep mountains, cliffs or extensive bodies of water. In the attempt to manage player frustration when an invisible wall is encountered, game developers have employed the environment as a limit of the game world with increasing frequency. The sea has been similarly used and continues to serve as an invisible wall in numerous titles, to this day. As such, although stunning views of the marine expanse are currently depicted in video games such as Bethesda's 2011 *The Elder Scrolls V: Skyrim*, Rockstar Games' 2013 *Grand Theft Auto V*, Ubisoft's 2013 *Assassin's Creed IV: Black* Flag, CD Projekt RED's 2015 *The Witcher 3: Wild Hunt*, Blizzard Entertainment's famous MMORPG (massively multiplayer online role-playing game) *World of Warcraft* and many others, these titles fail to capitalize on the rich symbolism of the sea precisely because they employ it in order to limit the player character's access to geography. In some cases, an invisible wall is encountered soon after the avatar leaves the shore and swims out into the sea, while in others, additional mechanics are used in order to confine the player character without breaking the narrative illusion. One such common example is *The Witcher 3: Wild Hunt* and a great number of similar games, where the player character has only a limited reserve of oxygen and cannot survive underwater for extended periods of time. In addition to this, *World of Warcraft* further employs a "fatigue" mechanic, whereby player characters who stray too far out into the sea have limited resources of stamina before they succumb to the waters. This may, indeed, seem realistic, as it would be highly unlikely for an individual to traverse an entire ocean by swimming alone, but no other means to explore the latter are provided by the game and the logic itself is employed to provide a slightly smarter, less frustrating invisible wall. Given this apparent contradiction between basic game mechanics and the symbolically charged representation of the sea as inherited from other arts, the question arises whether the translation of the sea motif is at all possible in the new medium of video games.

To answer such a question, we have employed a selection of titles that strive to achieve more than a visually realistic rendition of the sea. By means of innovative narrative devices, these games manage to represent one or several meanings associated with this vast symbol throughout the ages, thereby projecting an optimistic view for the future meaningful depiction of the sea in video games. The first such title is Ubisoft's acclaimed *Anno* series (1998-2015), which currently comprises six main titles and several secondary expansions. As most of these follow largely the same gameplay pattern, we will focus primarily on two of the series' most representative releases, *Anno 1404* (2009) and *Anno 2070* (2011). The video game itself falls within the genre of real-time strategy, augmented by elements of business simulation, city building, combat, diplomacy and trade. Its aim is for the player to explore the map, discover and settle islands with unique resources and subsequently build great colonies and cities by means of resource and production management, as well as trade with other players or with non-player characters that populate the region. The active game area is an undiscovered, usually fictitious marine expanse where several islands or archipelagos can be found. When a new game begins, the player owns nothing but a ship and modest resources. As the title of each game of the series suggests, the gameplay begins at a given moment in time and is set in one historical period or another. In *Anno 1404*, the focus is on the emerging relationship between Western and Eastern civilizations, while *Anno 2070* departs slightly from the previous titles in that it takes place in the future, when climate change has led to

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massive floods of the continents, leaving behind only small islands and scarce resources. Nevertheless, although the contexts, technologies, buildings, resources and people are different, the goals set for the player remain fairly unchanged throughout.

Certainly, the *Anno* series features only limited game worlds and, in each case, the end of the game world does coincide with the sea. In spite of this, however, the game is able to make innovative use of its mechanics and of narrative devices in order to ascribe meaning to the visual representation of the sea. For instance, although these are primarily city building games, a subordinate focus is that of exploration. In the beginning of each new game, the player must use her ship in order to discover the surrounding islands and is forced to compete with other characters for their ownership. Some islands are superior to others in terms of resources, positioning or building space, which creates a rush for the discovery and settling of the optimal land. As the player becomes able to expand her dominion, the citizens under her rule develop increasingly sophisticated needs, which, in turn, require the colonization of further islands with the appropriate resources. The race for land does not cease until very late in the game, and the element that makes it possible is the sea itself. Thus, the sea is assimilated with curiosity, exploration and a sense of freedom, in spite of the limited game world. In *Anno 2070: Deep Ocean*, the player is also given the possibility to dive down into the sea and to establish underwater colonies, further enhancing its association with the idea of discovery. It is also noteworthy that in *Anno 2070*, the sea genuinely stands for the rebirth of the human civilization, as it provides new resources and a means to generate clean energy when the continents themselves are drowned. At the same time, however, none of the *Anno* titles illustrate a purely ideal marine expanse, as the latter is usually fraught with dangers, most significantly because of the existence of corsairs and other pirate factions or because of catastrophic natural phenomena. When the player wages war against another character, many of the decisive battles are fought at sea, while cargo ships that carry resources from one island to another are put at considerable risk. The potential for life and the potential for destruction are forced together in the rendition of the sea, which transforms the latter into an element concomitantly feared and desired. In addition and most importantly for the *Anno* series, the sea is represented in all of its economic and political importance, as no less than a necessary condition for the development of a civilization.

Walking in similar, but rather darker lines, 2K Games' *BioShock* is a hybrid between a first-person shooter and a role-playing video game, published for the first time in 2007. The game's storyline is set in 1960, when the player character, Jack, discovers the underwater city of Rapture after his plane crashes in the North Atlantic Ocean, somewhere between Greenland and Iceland. As the player progresses through the main storyline, she becomes privy to the short history of Rapture, a secret, underwater colony constructed between 1946 and 1952 by the magnate, philanthropist and profoundly capitalist Andrew Ryan. His initial intention is to put together a society where science, industry and art might thrive undisturbed by interventions from governments, religion or other social agencies, and for this reason, he personally selects the population of the city as what he believes to be the best examples of humankind. However, as the colony begins to develop, his plan takes a catastrophic turn. Once the building projects cease, the construction workers lose their jobs and become destitute, crowded in miserable "temporary" housing and left to their own devices by the city leadership, which functioned in basis of the strong capitalist belief that the unfortunate must find their own way to prosperity. Led by the utilitarian Sofia Lamb, the poorer citizens are indoctrinated into revolt, and a conflict quickly ensues between them and the elite. Meanwhile, funded by the ruthless businessman Frank Fontaine, scientist Brigid Tenenbaum discovers a substance that behaves similarly to stem cells and that can be used to cure diseases, manipulate DNA and give organisms superhuman powers. This substance is

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immediately viewed as a "rebirth" for humanity and is dubbed "ADAM." Soon enough, however, Fontaine becomes aware of the possibilities for profit involving ADAM, especially since the substance is powerfully addictive, and looks for ways to enhance its productivity, which ultimately leads him to use orphaned or destitute children, sent by unknowing parents to "benevolent" schooling institutions, in his experiments. A civil war eventually breaks out over the control of Rapture and, in brief, the city is reduced to ruins. For the larger human population, its very existence remains hidden.

Determined to explore the dark side of Ayn Rand's objectivism and the doctrine's focus on individualism and laissez-faire capitalism (Bernstein 51-52), the developers of *BioShock* made excellent use of a number of the metaphoric interpretations of the sea. Built underwater in complete secrecy, the self-sufficient city of Rapture is designed as a fresh start for human society, underlining the sea's potential for purification and rebirth. Separated from bureaucracy and other evils of modern civilization, including, in the view of Andrew Ryan, any form of moral code, all human endeavours are expected to flourish. As businessmen and scientists break more and more ethical boundaries in the pursuit of their individual goals, however, the utopian city begins to fail, which is beautifully illustrated in its gradual flooding by and disintegration into the surrounding sea. Within the context, the dark marine expanse serves as a ghastly reflection of the human self and of the entire underwater colony, while at the same time drawing attention to the human being's attempt to impose a new order on nature, not in the least through the uncensored development of genetic engineering and the ADAM substance. As morality becomes increasingly corroded and eventually ceases to exist in the minds of the citizens so is the city worn away by the sea, which simultaneously behaves as a mirroring surface and as the reckoning force of nature. Ultimately, the tension created between the human city and the surrounding environment, both literally, on the surface of the underwater dome, and in terms of abstract, opposing forces, results in the utter destruction of Rapture and its disappearance into the depths of the ocean. The sea, which in itself stands symbolically for that infinity which dwarves any human endeavour, endures and continues its existence indifferent of the desperate human struggle leading to the colony's demise.

Dark Energy Digital's *Hydrophobia: Prophecy*, a survival-adventure video game published in 2010 that is also set on a massive, self-sufficient colony-ship in a dystopian near-future where the world is suffering from drastic overpopulation and climate change, features a storyline that makes similar use of the symbolism of the sea. Initially viewed as a protective space, separated from the chaos of the land, the Queen of the World, the great ship that houses five corporate men who have prospered during the population surge, is destabilized by a terrorist attack on behalf of the Malthusians, who seek to reduce and control the global population. The ambiguous nature of the sea is further ingrained in the gameplay itself, as the protagonist embodied by the player, the engineer Kate Wilson, attempts to rescue the sinking ship from utter destruction. In the process, the flooding water is both her friend and foe. She is often forced to swim for extended periods of time, almost losing her breath and her life as she tries to close off flooded areas of the ship in tense, often claustrophobic episodes. At the same time, however, she is able to make use of the water in order to solve certain puzzles or to gain an advantage over her opponents in combat. Nevertheless, what is unique about the representation of sea in *Hydrophobia: Prophecy* is the manner in which it is employed as a metaphor for uncontrollable human growth. Thus, the storyline refers to an "ever rising tide of the global population flood," making innovative use of the ominous, destructive and unstoppable connotations of the water itself.

Quite a different approach to the representation of the sea is taken by the developer Unknown Worlds Entertainment in *Subnautica*, an open world, underwater exploration and adventure video game whose creation began in 2014 and continues to this day. Meanwhile,

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players were invited to participate in the open beta testing and to contribute their feedback to the development of the game, thus accumulating a sizeable, fairly dedicated community. In the world of *Subnautica*, humanity has colonized a large portion of the galaxy, which has made it impossible for a centralized government to function effectively. As a result, several countries and large corporations have created their own Trans-governments, free to lead their respective societies in a personalized manner, so long as they observe a number of guidelines and rules put forward by the former centralized Earth-based government. When starting a new game, the player character finds herself on board of the Aurora, a spaceship sent to the Ariadne arm of the galaxy by the Alterra Trans-government, on an important mission. Unexpectedly, the Aurora is shot down by a mysterious weapon and plummets to the ocean planet below, planet 4546B, on the territory of the Mongolian Trans-government. The player character is the only survivor of the crash, on a planet where the only way to go is under. Thus, she begins her exploration of the seemingly endless sea, equipped with nothing but a few, basic items and the life pod that she used to escape, as well as with the knowledge to create necessary tools and even underwater habitats. To begin with, the primary goal is that of survival, as the player character requires food, water, a capacious oxygen tank and medicines for the game to continue. As the player accumulates the required resources from the bottom of the sea, she may create advanced devices, one or several underwater bases, interior or exterior plant beds and pots where she may cultivate food and even underwater vehicles. The sea itself ranges from shallow coral reefs drenched in sun to perilous deep-sea trenches, lava fields, winding cave systems and underwater rivers. Clues pointing to the fact that something went terribly wrong on planet 4546B are also to be uncovered and, alongside mysterious alien structures and an infected portion of the sea life, they persuade the player to continue her exploration long after she manages to ensure her basic survival.

Subnautica is unlike any other game developed thus far, if only from the point of view of its innovative underwater game world. Although, as any other game world, it too is limited, the sea is represented here as a powerful antithesis between avid exploration and a sense of underlying danger. The sea is a provider, a home for the player character and a habitat for beautiful fauna and flora, on the one hand, but on the other hand, it can be a claustrophobic space, in some instances, frighteningly deep and seemingly bottomless, riddled with fascinating, but dangerous creatures throughout. Furthermore, by placing the entire world underneath the surface of the sea, the developers have created a defamiliarizing experience, which is challenging for those who feel anxious about spending too much time underwater and a delight for those who feel an affinity for the ocean, but have so far been unable to experience an exploration game set in this environment. Needless to say, although the visual depiction of the water is not one of the most impressive available at present, *Subnautica* is perhaps the most memorable title in terms of how far this particular motif has come in the industry of video games, from the sea's early rendition as a blue-coloured rectangle, absolutely inaccessible to the player character, to the beautiful setting of an entirely submerged exploration adventure.

Finally, yet another somewhat different, but meaningful interpretation of the sea can be found in The Chinese Room's 2012 *Dear Esther*, an experimental first-person exploration video game that breaks with the conventions of traditional goals, puzzles, monsters or weapons in order to tell the emotional story of an unnamed writer of letters who has lost his wife in a car accident on the M5 highway in the United Kingdom. The player, in turn, embodies an unknown character who retraces the man's steps as she explores a remote island in the Hebrides, while listening to fragments of the man's letters written to his wife, Esther, after her death. The narrative itself is an ambiguous one and it is up to the player to interpret the scraps of text and to contribute a more or less personal meaning to them throughout the

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duration of play. What is noteworthy about *Dear Esther* in the context of the present paper, however, is its unique relationship with the sea surrounding the unnamed island. Indeed, as the player is made privy to more and more of the man's discourse, she becomes increasingly aware of the fact that the latter remains in a state of shock, unable to overcome the trauma of the accident or the death of his wife. At a culminant moment of the game, the player character dives in a body of water in an underground cave on the island and is met with a surprising display. Instead of observing the bottom of the cave, she witnesses a vision of the M5 highway, submerged under the open, dark sea, the centre of which is occupied by an empty hospital bed. Unlike the rest of the gameplay, this moment is not accompanied by music, its profound emotional impact resulting from an uncanny use of powerful, symbolic imagery, suggestive of the accident and of the man's inability to cope with its outcome. What is suggested, therefore, is the interpretation of the sea as a depiction of the man's subconscious, irreparably marked by previous events. This is lent further credibility at a later moment in the game, when the player comes across one of the shores of the island where the man's letters, shaped into paper boats, float outwards on the surface of the water. As the player gathers from the overlapping text, sending the letters out into the sea was the man's final, likely unsuccessful attempt to work through his anguish and to reach that image of Esther that had survived in his mind.

Naturally, the titles we have mentioned so far are merely a limited selection of video games representing the sea in a meaningful way, their value more illustrative than exhaustive. Nevertheless, they are more than sufficient to support an affirmative answer to our initial question, which referred to the potential of the new medium to import the motif of the sea and to transfer its vast symbolism into a different framework. While it may be true that in most cases, the marine expanse is still being used contrastively with its inherited meanings or, in other words, as a means to signal the limitation of the game world, there are titles, some of which we have analysed in our paper, that grant credibility to a finer representation of the sea within these worlds. Whether this means that the sea is depicted in its antithetical acceptation as both a call for exploration and a warning of fatal danger, that it is viewed as a nurturing space of rebirth or as a symbol for the unstoppable wrath of nature itself, that it serves as a reflection of the human being or of a wider community, or that it stands for the ambiguous subconscious at moments of crisis, it is certain that, although initially limited, video games do have the necessary tools, narrative or otherwise, to approach the representation of the sea in an authentic manner and to creatively display its multifaceted nature. Not only does this allow for the fascinating motif of the sea to continue its grip on the human imagination beyond traditional forms of textuality, but precisely because of the unique characteristics of the virtual environment, it generates the opportunity to enhance its symbolic heritage with new perspectives and interpretations.

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