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Creating and Playing Geopolitics in War Simulation Games

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Creating and Playing Geopolitics in War Simulation Games

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Digital games reflect geopolitical imaginations in accessible ways for a broad audience. Especially war simulation games are dedicated to portraying conflicts in virtual space and compared to other digital game genres, they claim to mimic the physical world in detail. Yet, their promise of realistic reenactments of warfare is shaped by biased game designs. Hence, this article qualitatively investigates interpretations of war in two war simulation games, *Hearts of Iron IV* and *Arma 3*, to uncover underlying geopolitical assumptions. Furthermore, since games are an interactive medium, their content is engaged with in unique ways. Through studying players, everyday negotiations of geopolitical content become visible. This paper does so for Singaporean players of the introduced games. Non-Western players are rarely considered by Western game producers and scholars similarly neglect this audience. Moreover, some players go beyond playing games and modify them according to their ideas. Local perspectives come to the fore and demonstrate the constituent power of game communities. Based on the multiplicities involved in representations, play, and modifications, the digital games are approached with assemblage theory, informed by literature from critical geopolitics and game studies.

Keywords: war simulation games; popular geopolitics; game modifications (mods); Singaporean geopolitical culture

Game developer studios are known for their boisterous claims to convince players of the entertainment value of their products. Paradox Development Studio (2016), Paradox for short, the studio behind *Hearts of Iron IV*, and Bohemia Interactive (2013), Bohemia for short, responsible for *Arma 3*, are no exception, as their promotional statements for both games make clear:

Steer Your Nation Through the Greatest Conflict in Human History

Take charge of history's greatest war machines in *Hearts of Iron IV*, a grand strategy wargame that challenges your strategic abilities and political insight.

This Is War

Experience true combat gameplay in a massive military sandbox. Authentic, diverse, open—*Arma 3* sends you to war.

But both digital games differ from other game genres.¹ The strategy game *Hearts of Iron IV* and the military simulation *Arma 3* are war simulation games with complex game systems to achieve ‘realistic’ play experiences “even at the expense of immediate gratification” (Egenfeldt-Nielsen, Smith, and Tosca 2024, 59). They are two of the most popular war simulation games: From 200,000 sales in less than two weeks after its release in 2016 to over six million in 2025, *Hearts of Iron IV* is an ongoing financial hit for Paradox (see Paradox Interactive 2016; Sensor Tower 2025). *Arma 3* sales have grown to over 10 million units in 2023, with another 500,000 sold in 2024 alone (see Bohemia Interactive 2024b; Land 2023). Whereas other games promise realism through detailed graphical visualizations, simulation games aim at creating those through their game rules and game mechanics. This claim to authenticity strengthens their discursive power. If simulation games convincingly establish themselves as realistic depictions of the physical world, biased portrayals become more persuasive.

From a critical geopolitical perspective, digital games are an important venue in the dissemination of geopolitical discourses in popular culture, as Power (2007), I. G. R. Shaw (2010), Salter (2011), and Bos (2016, 2018) demonstrate. However, few scholars capitalize on the interactive possibilities of digital games. More than recipient audiences, the constituent power of players emerges in everyday engagements (see Dittmer and Gray 2010). As Bos (2018) demonstrates, players negotiate the geopolitical messaging of games based on their familiarity with events from other media as well as personal background. Compared to playing games, modding games goes further. Modding describes the practice of players changing or extending the source code of digital games according to their ideas. They become player-creators and share what they have crafted with the community. Therefore, modding enables a closer look into everyday geopolitical discourses.

The games industry is spatially concentrated in few North American, European, and Japanese regions (Kerr 2017, chap. 2). As in other entertainment media and industries, such as Hollywood movies, this leads to specific dominant Western portrayals and narratives in games. Hitherto, games research covered mostly Western players, neglecting the estimated 80 percent of global players that do not reside in Europe or North America (Newzoo 2024, 18; Statista 2025, 11). How do non-Western audiences not only perceive those games but adapt them to their imaginations? Singapore offers the opportunity to study an audience at the crossroads of Western and Asian cultural products with more than 60 percent of the population playing digital games (Ludwig, Lachmann, and Papenbrock 2023, 6). On one side, high English literacy eases access to games developed in North America and Europe. On the other, games from East Asia are enjoyed as well (see Chung 2015, 483). Singaporeans are not representative for non-Western audiences, but they reflect how players engage games that were developed for other audiences.

In the following, I examine the biases of underlying geopolitical assumptions in *Hearts of Iron IV* and *Arma 3* including multiple optional downloadable content (DLC) packages that have been published over the years. Additionally, I study how Singaporean players challenge games assemblages while playing and through their own creations. To do so, I first situate my research in popular geopolitics and outline a conceptual framework for a combined analysis of both games. Then, I introduce the developer studios behind the games and analyze their game design philosophies. The consequences of their approaches will be covered in a game analysis afterwards. Finally, I come to the players; first, their reactions to the games, second, how they modify them.

Games Research

Before political geographers covered digital games as part of popular geopolitics, international studies scholar Der Derian (2009) investigated the entanglement of games industry and military-industrial-complex. In the seminal book *Virtuous War*, Der Derian works out how first-person shooters aid the sanitization of war and militarization of society through contrasting the barbarian violence of terrorists or insurgents with clean warfare by virtuous soldiers. Subsequent works in international relations, geography, and media studies continued the study of shooter games, predominantly how post-9/11 US-American discourses were replicated (see for books Crogan 2011; Payne 2016; Stahl 2010). Similar critical reflections were done for strategy games. Contrary to the first-person perspective common in shooters, the top-down perspective in strategy games presents players with the entire game space at once. This space usually consists of a map which awaits input from players. Lammes (2008; 2010) and Nohr (2010) were among the first to point out that representations of nations or civilizations on those maps have distinctive Western biases. Moreover, they identified classical geopolitical assumptions in the games' design; players inevitably clash over in-game space and its resources, victory points, or other game-winning markers on the map, constituting a "replaying of empire itself" (Mukherjee 2017, 49).

Challenging representations and game designs is necessary for critically approaching games and to understand their impact. However, the turn towards audiences is insightful, since everyday geopolitical imaginations manifest in play performances (see Dittmer and Dodds 2008; Dittmer and Gray 2010). Although various audiences of geopolitical discourses have been studied, for instance bloggers (Henry 2021; Suslov 2014), bulletin board members (Dittmer 2008; Woon 2011), moviegoers (Dittmer and Dodds 2013), newspaper readers (Dittmer and Larsen 2007; Woon 2014), online commentators (Dittmer 2011; Dodds 2006; Hastie 2021; Ridanpää 2014;

Thorogood 2020), radio listeners (Watson 2024), and social media users (Harris-Brandts, Gogishvili, and Sichinava 2025; Wellisch 2023; Wellisch and Liang 2025), digital game players have not been covered by many political geographers. This is astounding considering the global appeal of games. Bos (2016; 2018; 2023) is a notable exception and highlights the engagement of players with geopolitical discourses in digital games.

So far, scholars have predominantly looked at the intended audiences of game developers, i.e., Western players. I argue for considering audiences who engage games designed with other consumer markets in mind because responses of those players enrich the understanding of how impactful geopolitical imaginations are. War simulation games are particularly useful for this endeavor because they allow and encourage players to adapt the game systems according to their ideas. Therefore, game modifications, or mods, manifest the constituent power of audiences. Game studies scholars worked out how modifications empower lesser-known perspectives (Loban 2021; Loban and Apperley 2019), yet also how some modders create discriminatory or even extremist content (Salvati 2020). Mods are also influential in geopolitical discourses, as Lassin's (2024) findings illustrate. As reaction to the Russian invasion of Ukraine, players have created various mods explaining Ukrainian history with some even providing information on how to support Ukrainian forces in their fight. With players turning into player-creators, another analytical component to the study of digital games is added besides representations and play. That is why I advocate for a multilayered approach towards the study of digital games.

Games as Assemblages

Assemblage theory, notably DeLanda's (2006) refinements of Deleuze and Guattari (1987), has been gaining traction in geography in the last two decades and

Dittmer (2014) and Müller (2015a; 2015b) highlight its potential to overcome conceptual shortcomings in critical geopolitics. But the widespread applicability of assemblage theory also runs the risk that “literally anything comes to be described as ‘an’ assemblage” (Anderson and McFarlane 2011, 125). Nevertheless, I argue that approaching digital games with assemblage thinking has several advantages since games are highly interactive and dynamic media.

Assemblages are only temporary formations; durability but no continuous fixation is achieved (Anderson et al. 2012, 180). Beyond territorializations, assemblages can be deterritorialized, or disrupted/dissolved, and reterritorialized, or reformed (DeLanda 2006, 12; Deleuze and Guattari 1987, 9–10). This fluid understanding helps studying digital games which “almost never stay the same. Patches, updates, DLCs, addons, reworked editions, etc.; developers do not stop developing a game just with its release to the public.” (Wellisch 2024, 43). As part of ongoing game series, as the numerals in *Hearts of Iron IV* and *Arma 3* indicate, developers often balance between preserving key characteristics of game assemblages and delivering new, innovative play experiences. Who wants to buy a new game when it does not offer anything new? And what fan of the predecessor enjoys the new game if it differs vastly from the old one? It is not a fully-fledged “tyranny of the serial” (Dittmer 2007, 251), but there is “the need for repetition *with some difference* to capture and hold a player’s attention and to facilitate certain experiences” (Tomkinson 2020, 292).

These assemblages are not only territorialized by developer studios. Once games are published, players de- and reterritorialize the assemblages laid out by the producers. Although gameplay is largely determined by the game rules and game mechanics the developers put in place, game communities have an extensive history of diverging from the intended play experience, for example by modding. When modifying games,

modders reterritorialize the original game assemblage. Game modifications exemplify the agency players have vis-à-vis developers and depict everyday geopolitical imaginations. Thus, digital games are representative of new media which “may be repeatedly dissembled and reassembled in various combinations” (Leszczynski 2015, 738) in daily interactions. Here, it is important to consider who has constituent power to avoid an ontology which flattens assemblage components (Kinkaid 2020a, 462–463). I follow Kinkaid’s (2020b, 485) suggestion and include critical perspectives on game production and consumption in my conceptualization and analysis of game assemblages without the need to stratify power in the formation of said assemblages. This enables me to consider the impact of both producers and consumers of digital games and how they contest digital game assemblages.

Although I cannot cover the full “range of actors (system, technologies, player, body, community, company, legal structures, etc.), concepts, practices, and relations” (Taylor 2009, 332) that territorialize game assemblages in this paper, my analysis of representations by developers and adaptations by players discloses key discursive components parts, e.g., visuals, and material performances, e.g., player-creations (see I. G. R. Shaw 2011). Therefore, I identify three major facets of digital game assemblages: The first are developer studios and their game design philosophies which territorialize game assemblages. Next, in-game representations as well as game rules and game mechanics determine how play is experienced. Lastly, game modifications illustrate the potential to reterritorialize the original assemblages. Games are created, played, and modified through these component parts. Rather than conducting a critical analysis of representations *or* play/modding, an assemblage approach combines both and makes their interlinkages visible. “From a popular geopolitical perspective, it is this nexus

where geopolitical imaginations are shared and challenged between developers and players” (Wellisch 2025, 33). Before doing so, I briefly cover the methodology.

Methodology

Because my research taps into the multiplicities of digital game assemblages, a variety of qualitative approaches is necessary. For both developer studios, Paradox and Bohemia, I consult a mixture of official statements, promotional material, development reports, and developer-player interactions. The latter are particularly useful since both studios pride themselves on their close relations with players on their respective online community forums.² These encounters are complemented with game magazine articles and videos which disclose player-centered discussions around the studied games. Coming to *Hearts of Iron IV* and *Arma 3*, I employ playing as a method, looking at game rules and mechanics as well as representations through a popular geopolitical lens (Mäyrä 2008, 165).³ What assumptions are incorporated in the play experience by developers? To understand how players interact with the games, I recruited 37 Singaporeans and Permanent Residents. They range from 16 to 39 years with an average of 23 years with all but one player identifying as male. This does not correspond to the overall Singaporean games audience; the average age is higher and gender distribution more even (Ludwig, Lachmann, and Papenbrock 2023, 2). Hence, my sample is not representative of Singaporean players in general but provides a detailed look into the local communities of two specific games.

I utilize three different methods for studying those communities: gaming interviews, participant observation, and survey. Gaming interviews capture the solitary gaming experience for *Hearts of Iron IV* since the main draw for most players is the game’s singleplayer mode (see Schott and Horrell 2000). The advantage of gaming interviews is direct contact with the object of study: interviewees use the game to

illustrate their points during the interview. Contrary, participant observation and survey help approach the social play experience in *Arma 3* as the game is popularly enjoyed in player communities. I joined a community based in Singapore and conducted my research openly with approval of leading members. As part of “play and research in parallel” (Boellstorff et al. 2012, 69), I recorded my observations in a research diary. I complemented this with a questionnaire to gather additional responses and demographic data.⁴ Lastly, my analysis of game modifications is informed by two approaches. I invited participants to collaboratively modify *Hearts of Iron IV* to gain immediate insight into the creative process of players generating content (see Loban 2021; Loban 2023). I acted as moderator while players discussed how to reterritorialize the game according to their ideas. For *Arma 3*, I accessed existing player-generated content in the community. I analyzed this material to understand what fictional conflict scenarios modders outline and what underlying geopolitical imaginations they incorporate. I present my findings in the following.

Biased Production Conditions

Paradox and Bohemia have established themselves as proficient developers of war simulation games. Paradox is renowned for history-themed grand strategy games. In Chapman’s (2016, 69) words, their games are “conceptual simulations” since they are abstractions rather than visualizations of history. Each game has a different abstraction to represent the historical period, e.g., playing as individual rulers during the Middle Ages compared to controlling nation-states from 1936 onwards in *Hearts of Iron IV*. Bohemia offers acclaimed military simulations with in-person perspectives. They create large and authentic virtual spaces, where players experiment with military equipment and create their own content. Aside from some narrative guidance in scripted campaigns, engaging in warfare is entirely up to players in *Arma* games.

Both studios provide complex gameplay experience, where players must be attentive to a wide range of game rules and mechanics. The game designs utilized by Paradox and Bohemia are influenced by the military. In the case of Paradox this influence is systemic, going back to 19th century Prussian *Kriegsspiele* (Hilgers 2012, chap. 3). Military wargaming shaped early board game developers with Paradox staff being one example (see Deterding 2009). The whole company emerged from a board game publisher and leading Paradox developers highlight their interest in wargaming (see Andersson 2009, under “What were your formative gaming influences?”; Dean 2013, para. 5–6; Lind 2013, para. 2–3; Pennington 2022, 342). At Bohemia, military influence is immediate. The U.S. Department of Defense coopted Bohemia’s first military simulation as training simulator without the studio’s knowledge (Purchase 2014, para. 25–26; Roberts and Diller 2014, 471). In other words, they reterritorialized the digital game assemblage from entertainment medium to training tool. This prompted Bohemia to establish their own company catering to military purposes, Bohemia Interactive Simulations (rebranded to OneArc in 2025), which henceforth developed military training software for countries in the North Atlantic Treaty Organization (NATO). Although the subunit was sold in 2013, the companies still have close ties (Morrison 2019, under “Have you produced any simulations as commercial games?”).

The entwinement with militaries impacts how the digital game assemblages territorialize, with militarist logics being prevalent in Paradox and Bohemia game designs. This is supported by male-dominated production conditions, easing the conflation of military and masculinity. The studios correspond to the global games industry with “an exploited labor aristocracy in the imperial core structured along white, masculine, heteronormative lines” (Hammar and Woodcock 2020, 57). Non-males are absent in senior management positions for creative decisions and directions in both

companies (Bailey, Miyata, and Yoshida 2021, 61). The current situation shapes the presentation of warfare as masculinist domain in their games and has consequences among the workforces, as multiple cases of gender-based (sexual) harassment at Paradox in 2021 demonstrate (see Phillips 2021).

Paradox and Bohemia are not part of the established Western game production centers in North America or Europe. Although the companies have several studios abroad, the main locations are situated in Sweden (Paradox) and Czechia (Bohemia) (Bohemia Interactive 2024a, 29; Paradox Interactive 2025, 20–21). They are comparatively small with several hundred employees each. Nevertheless, they produce games for the international market. More precisely, they focus on Western audiences. Therefore, their games incorporate Eurocentric perspectives to resonate with players. Paradox' strategy games overwhelmingly let players indulge in European histories and Bohemia's military simulations put players in the footsteps of NATO or other Western soldiers. This is apparent in the content developers create for their games. After the base games were published, both studios have been releasing numerous DLCs for players to purchase. In the case of *Hearts of Iron IV*, only few countries received gameplay content from the start. Over time, the studio added predominantly European and Western countries and severely neglected the Pacific theatre of World War II (WWII), see table 1. In November 2025, one major DLC for East Asia was published, with another smaller content release for Southeast Asia scheduled for 2026, 10 years after the game's initial release date.

Table 1: Content release history of *Hearts of Iron IV*

Name	Date	Countries which received content
Hearts of Iron IV	06/06/2016	France, German Reich, Japan, United Kingdom, United States, Soviet Union

Poland: United and Ready*	06/06/2016	Poland
Together for Victory*	15/12/2016	Australia, British Raj, Canada, New Zealand, South Africa
Death or Dishonor*	14/06/2017	Czechoslovakia, Hungary, Romania, Yugoslavia
Waking the Tiger*	08/03/2018	China, Communist China, German Reich, Japan
Man the Guns*	28/02/2019	Mexico, Netherlands, United Kingdom, United States
La Résistance	25/02/2020	France, Spain, Portugal
Battle for the Bosphorus	15/10/2020	Bulgaria, Greece, Turkey
No Step Back	23/11/2021	Estonia, Latvia, Lithuania, Soviet Union, Poland
By Blood Alone	27/09/2022	Ethiopia, Italy, Switzerland
Arms Against Tyranny	10/10/2023	Denmark, Finland, Iceland, Norway, Sweden
Trial of Allegiance	07/03/2024	Argentina, Brazil, Chile, Paraguay, Uruguay
Götterdämmerung	14/11/2024	Austria, Belgium, Congo, German Reich, Hungary
Graveyard of Empires	04/03/2025	Afghanistan, British Raj, Iran, Iraq
No Compromise, No Surrender	20/11/2025	Japan, China, Communist China, Philippines
Peace for Our Time	2026	Czechoslovakia
Thunder at Our Gates	2026	Australia, Indonesia, Siam

* Except for *Poland: United and Ready*, which was a complimentary release, these DLCs were integrated into the base game in 2024 and 2025 and cannot be purchased anymore.

Eurocentric content production is also apparent in *Arma 3*. The game's campaign predicts a conflict between NATO and a fictional faction led by China in 2035, taking place in the Mediterranean Sea and South Pacific. The DLCs enrich the playing experience around this scenario. Additionally, so-called Creator DLCs reiterate Western conflict discourses. Bohemia has published content from modders as Creator DLCs from 2019 onwards, see table 2. These DLCs exemplify that player-creations territorialize digital game assemblages similarly to developers' representations,

reinforcing Western conflict imagery in European Cold War theatres, Vietnam War, and contemporary counterinsurgency campaigns.

Table 2: Content release history of *Arma 3*

Name	Date	Notable content
Arma 3	05/03/2013	
Zeus*	10/04/2014	Game master role
Karts	29/05/2014	Vehicles
Helicopters	04/11/2014	Vehicles
Marksmen	08/04/2015	Weapons
Apex	11/07/2016	New campaign in South Pacific
Jets	16/05/2017	Vehicles
Malden*	22/06/2017	Map of first <i>Arma</i> game
Laws of War	07/09/2017	Non-combative gameplay
Tac-Ops	30/11/2017	Missions
Tanks	11/04/2018	Vehicles
Global Mobilization - Cold War Germany	29/04/2019	Creator DLC set in alt-historical 1980s Cold War
Contact	25/07/2019	Spin-off with extraterrestrial encounters
Art of War*	23/02/2021	Community art
S.O.G. Prairie Fire	06/05/2021	Creator DLC set in Vietnam War
CSLA Iron Curtain	16/06/2021	Creator DLC set in alt-historical 1980s Cold War
Western Sahara	18/11/2021	Creator DLC set in contemporary desert
Spearhead 1944	25/07/2023	Creator DLC set in World War II
Reaction Forces	26/03/2024	Creator DLC
Expeditionary Forces	26/11/2024	Creator DLC

*These DLCs are free of charge. *Art of War* was part of a charity sale.

Therefore, as many other games developed in North America and Europe, *Hearts of Iron IV* and *Arma 3* appeal to Western audiences through reproducing popular conflict discourses. Still, Paradox and Bohemia explicitly encourage players to develop their own stories around the country or soldier they play as (Bohemia Interactive 2024a, 26; Paradox Interactive 2025, 13). Due to the high level of agency the studios award players with, it is very easy to diverge from the paths set out by the developers. Players change the portrayal of history and warfare and explore alternative narratives. The promise of verisimilitude is important for them even if they try out alternate scenarios. If players change history in *Hearts of Iron IV*, the history should be plausible; if players add new equipment in *Arma 3*, the equipment should behave plausibly.

Curiously, neither Paradox nor Bohemia claim to offer fully ‘realistic’ experiences. Indeed, former Paradox Senior Designer Chris King (2016, 31:42–32:53) weighs off the representation of history with the need to design games which are fun to play. Similarly, *Arma 3* does not feature warfare that is too violent to sell or too boring to play. After all, war simulation games are designed as entertainment media. In other words, the “pragmatism of game design practice” (Grufstedt 2022, 177) reigns supreme. This pragmatism territorializes game assemblages through mixing militaristic outlook, masculinist workforce, and Eurocentric bias. The same issues surface in the games’ visual, structural, and narrative designs as the following section shows.

The Imitation Games

Starting with the strategy game *Hearts of Iron IV*, Paradox territorializes a digital game assemblage based on classical geopolitical assumptions. The virtual space, the global map, neatly splits up all land areas between countries; no single piece is left unclaimed, see figure 1. Nation-state control is essentialized in a spatially ordered world; there are no alternative imaginations possible (Agnew 1994, 62). It is already

this map which subtly shows Paradox' Eurocentrism in their portrayal of WWII. By using the Miller projection, North America and Eurasia are enlarged and the Pacific is pushed to the margins (see Miller 1942; Skjæran 2014). When zooming closer, European countries exhibit more details. They have more states (the main territorial unit in the game), more victory points (the numerical values attached to cities) or visual variety (the 3D depictions of military equipment). Multiple rounds of updates increased the content for those countries, neglecting non-European sites of WWII. Furthermore, the map discloses wargaming logics. Small territories are greatly enlarged if they are attributed with strategy value, such as Gibraltar, because players must be able to find and interact with them. Irrespective of country choice, the focus lies on the national scale, where homogenous populations become mere human resources needed to conscript troops. The consequences for the conquered populace are of minor importance.

Figure 1: Starting map in *Hearts of Iron IV* (own screenshot)



This adds to the masculinist rendering of history. Women are notably absent in the audiovisual game design, from male choruses intoning military marches to male

figureheads representing entire countries. Especially the latter create a gendered imagination of nation-states and are reminiscent of feminist critiques of geopolitics being a history of ‘great men’ (see Sharp 2000). There are female leaders, but gameplay-relevant women are largely invisible. While contemporary conditions are an explanation for this decision, it still undermines the role of women on the ‘home fronts’ and as part of the armed forces and other war-essential capacities. There is no space for those histories because *Hearts of Iron IV* depicts WWII in a realist reading of international affairs: Going to war and extending control are the core gameplay experiences (Kuiper 2020, para. 3).

Besides visuals, the game mechanics territorialize a deeply militarized digital game assemblage. War is inevitable because players go through a set sequence of historical events where conflict is enacted or imposed at one point (Pennington 2022, 40–43). Players control all means to conduct these wars in the tradition of wargaming: army, navy, and air force are at their disposal. Moreover, because warfare is imagined as ‘total war’, all aspects of managing a chosen country serve the purpose of military conflict. Economic and political decisions are mandated accordingly, and players are omnipotent leaders who do not need to justify their domestic and foreign policies. Only military defeat in a (civil) war would cause the game to end. Winning or losing is decided purely by military factors and geopolitical conflicts become a zero-sum game (Salter 2011, 365–366).

Curiously, the game deviates from a classical geopolitical understanding of great powers projecting their might onto others. As a form of “small state imperialism” (Fabrykant and Buhr 2016, 104) smaller countries perform similar expansionist campaigns, often reconstructing national imaginations of past empires. Hence, they do not escape the general game logic of inevitable conflicts. These conflicts are inherently

territorial and conquering or losing land exemplifies how game visuals and mechanics are combined to territorialize conflict imagery as entertainment. Since countries are color-coded, players can ‘paint’ the map in their own color when conquering territory, granting resources, manpower, or other strategic advantages. Map-painting is a key fulfilment for players, putting them in “a position of power that is reminiscent of a (military) cartographer, giving the player the means to transform maps according to their needs and purposes” (Lammes 2010, 3).

Turning to the military simulation *Arma 3*, Bohemia puts players on the ground in a virtual environment. This is drastically different to the top-down view in *Hearts of Iron IV* but territorializes a game assemblage with very similar assumptions. The main islands in the game, Altis and Stratis, which are based on the Greek islands Lemnos and Agios Efstratios, as well as the fictional Pacific archipelago Tanoa are mere staging areas for military action. The islands are devoid of any civilian life and players only interact with combatants throughout the story campaigns, see figure 2. Moreover, they only interact with men. The inclusion of female-read character models was unsuccessfully requested by some players during development and rejected by others (see Asytra 2013). Prevalent in military-themed digital games, the reduction to warfare as men’s business “reinforces the deeply patriarchal system military masculinity reflects” (Blackburn 2018, 49). Consequently, the players’ role as soldiers on the ground is imagined as heroic warriors surviving against all odds once players are thrown into battle. Players must clear villages, set up ambushes, or destroy infrastructure in the struggle for control, painting the islands as perpetual warsapes.

Figure 2: Passing a checkpoint on Stratis in *Arma 3* (own screenshot)



Combined with the visual dominance of the military, the *Arma 3* assemblage is inspired by geopolitical discourses. The game predicts economic and social crises among Western countries in the 2020s, with a new China-led military alliance rising on the geopolitical stage. Together with this organization, the local military government on Altis and Stratis attacks NATO troops. In the campaigns, Bohemia echoes contemporary geopolitical narratives of “a ‘rising China’ and ‘waning West’ to be stuck in an anachronistic mode of dualistic logic where ‘influence’ in island spaces is portrayed as an either/or, zero-sum game of imperial rivalry amongst external powers” (Davis, Munger, and Legacy 2020, 15–16). China, Iran, and Belarus are noted opponents of NATO. The developers do not elaborate much on the cause or nature of the split between the factions. Instead, the conflict is essentialized and builds on players’ familiarity with Western discourses. It does not matter if those accounts are incomplete: “The player’s pre-game knowledge allows the game-maker to leverage the player’s experiences rather than adding more detail to the story. Players will readily project their knowledge of events” (Berger 2008, 47).

Here, it is important to note that the imaginary setting of *Arma 3* takes place in 2035, which seemed more futuristic in 2013 than it does more than a decade later. During development, Western geopolitical anxieties about a power shift towards China gained considerable popularity in European discourses (Pavličević 2022, 70). In Czechia, whose geopolitical culture affects developers at Bohemia, China was identified as potential threat ranking even above Russia in 2012 (Mácha et al. 2015, 575). Thus, just as the virtual environment imitates the physical, the narratives in the game reference contemporary geopolitical discourses.

One notable exception to the geopolitically clear-cut, masculinist, and militarized play experience is the DLC *Laws of War* which was created in collaboration with the International Committee of the Red Cross (see Hall 2017). The campaign in the DLC lets players face the consequences of warfare for civilians, i.e., by removing landmines and unexploded ordnance. The messiness of war is emphasized, and all war participants are shown as contributors to violence. The exploration of grey areas in armed conflict as well as showing consequences for the civilian population is a rare example for how military simulation assemblages are deterritorialized.

Looking at the game designs of *Hearts of Iron IV* and *Arma 3*, from visuals to gameplay to narratives, discloses how game assemblages territorialize virtual warscapes informed by production conditions and geopolitical cultures. The masculinist, militarized, Eurocentric game assemblages perpetuate a clean image of war. *Hearts of Iron IV* has no historical contextualization and sanitizes armies, political actors, and whole ideologies (see Matlack 2021; Pfister 2020, 275–276). Especially the DLC *Götterdämmerung* added a fetishized image of Nazi militarism to the game, playfully featuring an ideology and its key actors decoupled from destructive consequences. Similarly, *Arma 3* does not encompass the gruesome realities of warfare for individual

soldiers, such as injuries, disfigurements, or dismemberments. Even blood is only sparingly encountered, contributing to war as “almost sterile” (Gieselmann 2007, 3). There are few challenges to the imagination of warfare as computable, clean, and clear-cut. The question arises how players engage these biased game assemblages during play.

Where Is (Southeast) Asia?

Gaming interviews with Singaporean players reveal an ambivalent relation with the skewed portrayals in *Hearts of Iron IV*. While playing, Singaporeans criticize cartographic disproportions, abstractions of war, sanitizations of ideologies, skewed history-tellings, and misappropriations of the game. They accept these shortcomings, arguing that games must necessarily compromise to be entertaining. But many interviewees explicitly point out the (under)representation of (Southeast) Asia. Only two out of 14 DLCs added content for the region. Singaporean players emphasize that a vital WWII theatre should have better representation in a WWII game. The missing attention paid to what players are familiar with the most leads some to challenge basic assumptions, such as interviewee An Yan:

It’s interesting because we look at the history of Southeast Asia during this period through a colonial lens. When we talk about World War II, we talk about conflict, when we talk about conflict, we talk about governments and policies and military forces instead of looking at people. The history of the natives isn’t really talked about very much apart from certain resistance movements.

Even the constant reterritorialization of the game assemblage through updates does not compensate for this, as exemplified by the portrayal of Singapore in *Hearts of Iron IV*. For almost 10 years, Singapore was part of British Malaya, the in-game entity comprising today’s Malaysia and Brunei. This changed in November 2025. Together

with the DLC *No Compromise, No Surrender*, the free update 1.17 reorganized the region. Singapore was territorially and politically detached from British Malaya: it became an island and was put under direct control of the United Kingdom. This reterritorialization of the game assemblage is barely noticeable on the in-game map and mattered little for the play experience. It has not been entertaining to play with any country in the region since the game was released. One interviewee described their experience with British Malaya as disappointing, since “you'd mostly rely on Britain to defend you. They wouldn't do a very good job.” (Joshua). Southeast Asia has no agency and is shaped by external powers such as the United Kingdom and Japan. Paradox enables a multitude of fanciful alt-historical game assemblages through DLCs, e.g., restoring Russian Czarism or conquering the Americas as one of the indigenous populations; it remains to be seen how Paradox reterritorializes the *Hearts of Iron IV* assemblage with the DLC *Thunder at Our Gates*, scheduled to release in 2026, which adds content for Australia, Indonesia, and Siam. So far, the flawed representation of Southeast Asia deterritorializes the war simulation game assemblage for Singaporeans: “If you want to play an interesting game, you pick something here {pointing to Europe}, so you don't end up spending three to four hours building up and then getting wiped by Japan when they come” (Kenneth).

Similarly, Asian representation is lacking in *Arma 3*. Tanoa is the first Pacific virtual environment in the whole *Arma* series, which mostly recreated landscapes from Europe or the Middle East. The Eurocentrism in representations continues in the geopolitical narratives, where NATO forces battle a China-led faction. The majority of Singaporean players see this bias, such as Darren: “While there is some attempt to show factions as more ‘grey’, in general the West is still shown as ‘good’ in most scenarios while the East is shown to be more ruthless.” Again, players critically reflect on existing

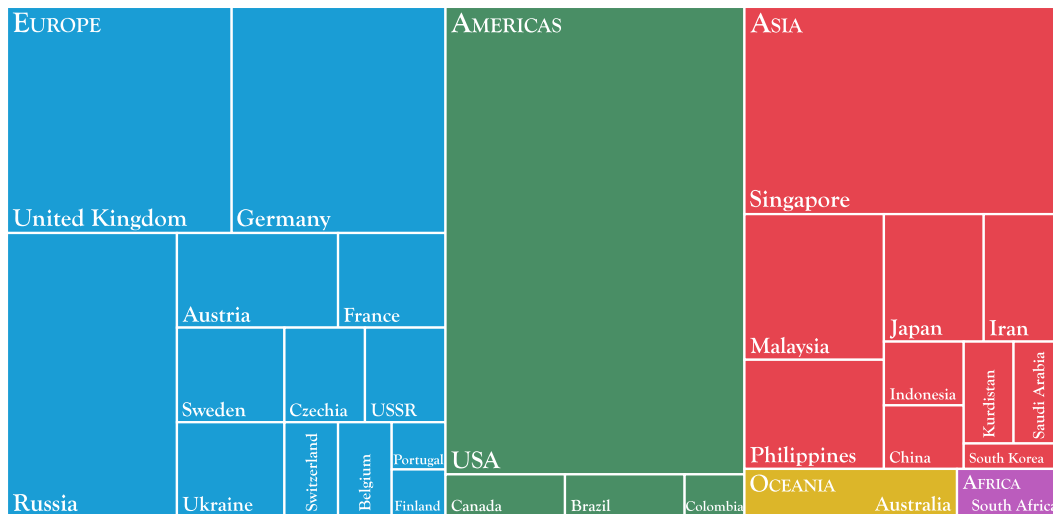
biases but voice their understanding for developers. Many players stated that the game would be even more skewed if it was developed in Southeast Asia. Probed further about possible scenarios in a hypothetical Southeast Asian *Arma 3*, Singaporeans display knowledge of regional geopolitical issues:

It depends on the country and people developing it, and who is the enemy. There could be SEA vs China for the 9-dash line, Philippines and Indonesia vs China, Indonesia/Malaysia vs Singapore, NATO vs Russia/China in SEA etc. (Kyle)

The importance of local representations comes forward in content creation. Since *Arma 3* does not provide any content outside of the fictional clash between NATO and its rival organization, Singaporeans had to become player-creators and craft the content they wanted to utilize in their scenarios, from weapons to uniforms to vehicles. Hence, to realize their imaginations, Singaporean players created 109 virtual representations of existing armies. Especially Asian countries received great attention in the community and were added to the game. Analyzing all player-created armies that have been used in the Singaporean community in 2024 and 2025 supports this observation, see figure 3. Despite the popularity of embodying armies from Europe and North America, regional and particularly Singaporean forces were played frequently. More than half of the players in the community claimed to incorporate Singaporean forces regularly and Singaporean units were the second most popular choice only after US-American troops. This territorializes a considerably different game assemblage compared to communities based in Western countries, who usually recreate warfare exclusively with European or US-American armies. Singaporeans have affinity with those as well, inspired by other media, such as (Western) war movies, hinting at the intertextuality of digital game assemblages (Dittmer and Bos 2019, 42–43). But Singaporean players have greater range in their play behavior and a dedicated regional

focus, illustrating how players reterritorialize the game assemblage according to their imaginations.

Figure 3: Regional distribution of militaries played by Singaporeans (own work)



Adding Singapore

Hearts of Iron IV and *Arma 3* players are prolific modders. Over 60,000 items for the former and over 165,000 for the latter are available in December 2025 (Valve 2025a; Valve 2025b). However, the modifications created in the global game community address the issue of Eurocentric game design only limitedly. Because Paradox and Bohemia target audiences in Western countries, their games are designed to appeal to players from those regions. This leads to larger communities and consequently more modders from Western countries. Hence, player-creations majorly repeat the biases of the base games (Apperley 2018, 16–17). For example, Asian countries are rarely the focus of *Hearts of Iron IV* modders, even less so Southeast Asian ones. For *Arma 3*, out of the 100 most popular player-created virtual environments, only nine feature the Asia-Pacific. The same applies to mods adding military equipment; while creators enrich play opportunities for various armies, Asia becomes invisible in the sheer volume of modifications focused on Western militaries.

Therefore, it is necessary to directly engage reterritorializations of digital game assemblages outside of Western predominance. For *Hearts of Iron IV*, the modification *Majulah Singapura*, named after Singapore's national anthem, adds not only Singapore as country to the game but reimagines the whole region. Instead of British Malaya, there are Federated Malay States, British North Borneo, and the Straits Settlements, which consist of Singapore, see figure 4. Together with the territorial changes, the playable content for the Straits Settlements moves from the imperial perspective with Singapore as British strategic interest in the base game towards self-centered agency, ultimately leading to Singapore's independence. While it is unverifiable if the creator is Singaporean, contemporary Singaporean geopolitical imaginations find their way into history-writing, for example Singapore's smallness which the modder signals as burden in the defense of the island. This presentist argument—Allied forces had a substantial numerical superiority at the time (Stille 2016, 25)—dominates Singaporean self-identification (Jamieson 2025, 7–8).

Figure 4: British Malaya and Borneo in *Hearts of Iron IV* (top) and *Majulah Singapura* (bottom) (own screenshots)



The impact of current national geopolitical culture in history-writing is also palpable in the collaborative modding exercise I conducted with research participants. This practice grants direct insights into the reterritorialization process. My research participants opted for portraying Singapore in the 1960s instead of the base game's WWII setting because they wanted to retrace Singaporean history from its independence. On one side, players repeat this history as it has been recorded; on the other, they add possibilities to diverge from historical accounts. Generally, several aspects of the ongoing “structural anxiety” (Chong and Chan 2017, 381) present in Singaporean geopolitical culture were raised by participants to be included in the modification:

(1) “Racial” riots were named by participants as significant part of Singapore's independence story. The outbreaks of violence have been haunting home affairs discourses ever since (see Law 2006; Woon 2013). (2) The player-creators mentioned increasing and achieving drinking water autonomy, a key national concern in Singapore (Tortajada, Joshi, and Biswas 2013, chap. 4). (3) Domestically, participants subscribe to

Lee Kuan Yew as “Man of Iron” (Jie Hao) and the People’s Action Party to secure the country. This symbolizes how discursively entangled Singapore’s success story is with its first prime minister and ruling party (Tan 2017, 152). (4) For foreign relations, *Konfrontasi*, Indonesia’s violent opposition to the formation of Malaysia, was stated to be one of various hostilities Singapore had to face in its history. But more than a threat, participants suggested to utilize the incident to expand Singapore’s influence. (5) Military cooperation with Israel was outlined to tackle foreign threats, inspired by historical circumstances (Huxley 2000, 11). In the modification, this leads to a secret coalition between both countries. (6) With Singapore’s geopolitical culture of precariousness, attacking first is legitimized as necessary measure for national survival: “our doctrine is to always strike first because we learned that we can’t defend the island, from experience in WWII” (Ryan). This is a presentist view since historical defensive doctrines only slowly moved from the passive ‘poisonous shrimp’, to the proactive ‘porcupine’, to the pre-emptive ‘dolphin’ which is imagined by participants (Loo 2015, 70).

Therefore, participants reflect official Singaporean geopolitical discourses and gamify them. Although departing from historical accounts in various instances, participants explicitly draw on contemporary conditions. The modification was not completed but indicates how impactful geopolitical discourses are in player-generated content. While developers are similarly shaped by geopolitical cultures, Singaporean participants enrich *Hearts of Iron IV* with their detailed accounts of local histories. Most non-Singaporean players would be surprised to learn of Singapore’s way of reaching independence or its foreign relations. Whereas the base game has no incentive to feature Southeast Asian histories in a significant way, the collaborative modding exercise

discloses how players reterritorialize the game assemblage. I made similar observations for *Arma 3* modders.

Various members of the Singaporean *Arma 3* community created military equipment and entire storylines for missions. Looking at the former, Singaporean military personnel was added to *Arma 3* in detail, e.g., Singapore Armed Force (SAF), 1st Commando Battalion, or Maritime Security Task Force. Even weapons were accurately recreated, such as the SAR 21, the standard assault rifle of the SAF. In the Singaporean community, the desire to achieve high verisimilitude with the forces they want to portray impacts the reterritorialization of the game assemblage and includes self-imposed restrictions: “Units with low budgets shouldn't have access to ‘extra’ or expensive equipment”. This memorandum in the internal guideline reminds modders not to depart from perceived realism. Play experiences are formed in a similar manner. Regardless of what army Singaporeans play as, e.g., the SAF or U.S. Army, they align map, military, and mission in their desire to have believable scenarios. For instance, when playing as SAF, the objective is combating organized crime; when playing as the U.S. Army, conventional warfare in Middle Eastern terrains is recurring. Doing the latter as SAF is not appealing to players as it departs from what they see as plausible military simulation.

Among the scenarios Singaporeans play, some campaigns stretch over several missions and include overarching narratives, mostly created by one unit member, Aaron. He outlines a nuanced story in the longest-running campaign of the community. A fictional country causes a global outbreak of violence, responded to by a coalition of Southeast Asian countries among others. Aaron went to great lengths to contextualize the campaign with news reels, private logs, radio chatter as well as pre- and post-mission dialogues. The narrative in this textual material is more abstract than what

Bohemia imagines since the hostile country remains vague in description. This abstraction goes so far as moving beyond China and Russia as counterparts popular in Western discourses and wrongdoings on both sides of the conflict are called out, especially around the situation of the suffering local population. Lastly, grounded perspectives are also available around soldiery, mourning the destruction and highlighting the resolve to finally achieve victory.

With this reterritorialization of the game assemblage, Aaron plays into Singapore's geopolitical culture of being a small state struggling for survival. Since the conflict of the second campaign takes place in Southeast Asia, the spatial proximity triggers a unifying momentum for Southeast Asian nations. This also corresponds to the rules in the Singaporean *Arma 3* community, which do not allow missions to depict the following:

1. Player-controlled suicide bombings, hostage taking or other actions intending to emulate terrorist activities.
2. Potential conflicts or scenarios that are more likely than not to cause the group to encounter problems with players or external parties.
3. Conflicts between two parties based in Asia.

The stances exhibited here are arguably Singaporean. First, the explicit ban of enacting terrorist activities hails from intensified national security discourses in Singapore (see Woon 2013). Second, abstaining from stirring controversies with external parties is reminiscent of Singapore's small state ideology. In this view, it is vital for Singapore to balance between major powers to "adapt to changes easily while not having to 'take sides'" (Guo and Woo 2016, 39). Third, averting intra-Asian conflicts copies 'racial harmony' discourses which have been part of Singapore's geopolitical culture over decades (Goh 2010, 562). Since the community consists not only of Singaporeans, but other Southeast Asian nationals as well, this rule is meant to facilitate the 'harmony' in

the community. Although Bohemia is careful in their representation of hostile factions, they deliberately incorporated China as counterpart in *Arma 3*. Contrary, Singaporeans are embedded in a different geopolitical culture, where openly vilifying China is not deemed appropriate. This exemplifies the unique influence of domestic factors in the reterritorialization of game assemblages by player-creators.

Conclusion

Although *Hearts of Iron IV* and *Arma 3* have different perspectives towards virtual spaces, they employ similar geopolitical assumptions in their digital game assemblages: (1) Only men command and fight in wars. (2) Players have far-reaching agencies as commanders or soldiers. (3) Control of in-game characters or factions is unchallenged. (4) Friend and foe are clear-cut. (5) Confrontations are territorial and inevitable. (6) Violence solves conflicts. (7) Soldiers are dehumanized, civilians erased. (8) Grounded realities and consequences of war are sanitized. These findings are connected to past entanglements of militaries and game development as well as games being entertainment media. Paradox and Bohemia also exhibit a distinctive Eurocentrism in their productions.

Because Asia is severely neglected in both games, Singaporeans identify and criticize the lack of representation not only of Singapore but Southeast Asia in general. My fieldwork on player-creations demonstrates that players compensate for this shortcoming to some degree, although the game designs of *Hearts of Iron IV* and *Arma 3* are persuasive. No one wanted to create a non-confrontational mod, escaping essentialized, unavoidable warscapes or challenge the masculinist portrayal of warfare. But players enriched representations through adding their local perspectives. Singaporean geopolitical discourses around racial harmony, water security, foreign threats, or small state diplomacy are traceable discursive elements. Singaporeans replay

and recreate popular geopolitical imaginations derived from other sources and disseminate their imaginaries through their creations. Hence, the original digital game assemblages are de- and reterritorialized from Singaporean perspectives. Since high modifiability is a key game design of the studied war simulation games, they facilitate the realization of narratives that would otherwise see little representation.

Similar to my work on online comics (Wellisch 2023), this paper illustrates the usefulness of assemblage thinking for analyzing digital content that is characterized by dynamic processes in both production and consumption. Human (developers, players, modders) and non-human component parts (visuals, gameplay, narratives) shape the assemblages. Through this reading of digital games, this article joins other critical geopolitical analysis of media assemblages, for instance radio (see Weir 2020; Williams 2025). Moreover, the interactivity of digital games enables capturing bottom-up content creation activities and the materialization of everyday geopolitical imaginations.

But it is not enough to suggest that players simply modify games and solve issues of mis- and underrepresentation. Since the games appeal to Western audiences in the first place, there are also more modders stemming from this audience, which runs the danger of repeating biased representations. Furthermore, most modders operate within the game design laid out by developers. It is the studios which possess the necessary resources to diversify their games even if their portrayals might not reach the same level of detail as indigenous productions. Companies must assume responsibility not only for challenging prevalent one-sided geopolitical imaginations in war simulation games but also to pre-empt any misuse. While modding creates great opportunities for the realization of subaltern perspectives, it also runs the danger of misappropriation. In the case of Singaporean digital game players, modding played part in radicalizing adolescents (see Iau 2023, Chua 2026). Although these are isolated and extreme

incidents, they demonstrate the potential of game modifications. As the popularity of digital games continues to rise around the globe, so does their impact on societies. Equally, the role of modding will gain importance and visibility.

Notes

- ¹ Throughout the article, I use the term ‘digital game’ as it allows a broader understanding opposed to video games, which are sometimes confined to game consoles, or computer games, which are played on computers. I understand ‘war simulation games’ as game genre combining the recreational wargame *Hearts of Iron IV* and the military simulation *Arma 3*. This separates them from military wargames and non-violent simulation games. Similarly, I prefer ‘players’ and ‘playing’ over ‘gamers’ and ‘gaming’ to avoid confusion with ‘Gamers’, a subset of players who discriminate other (non-white, non-male) players (see Consalvo 2012; A. Shaw 2012).
- ² <https://forum.paradoxplaza.com/forum/> and <https://forums.bistudio.com/>.
- ³ This was significantly easier for *Hearts of Iron IV* which I have been familiar with for years before my analysis. Contrary, I bought *Arma 3* explicitly for research in 2024. Game version 1.16 is authoritative for *Hearts of Iron IV*; game version 2.16 is authoritative for *Arma 3*.
- ⁴ For *Hearts of Iron IV*, the main data was collected from April to November 2023. I conducted the participant observation for *Arma 3* from February to September 2024, with the survey running through December 2024. All participants are pseudonymized.

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Figure Captions

Figure 1: Starting map in *Hearts of Iron IV* (own screenshot)

Figure 2: Passing a checkpoint on Stratis in *Arma 3* (own screenshot)

Figure 3: Regional distribution of militaries played by Singaporeans (own work)

Figure 4: British Malaya and Borneo in *Hearts of Iron IV* (top) and *Majulah Singapura* (bottom) (own screenshots)



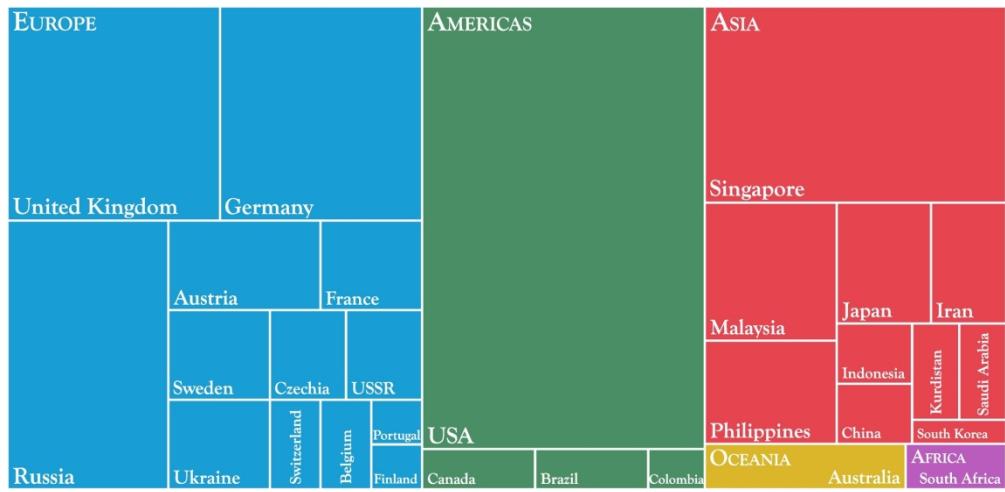
Starting map in Hearts of Iron IV (own screenshot)

677x381mm (72 x 72 DPI)



Passing a checkpoint on Stratis in Arma 3 (own screenshot)

677x381mm (72 x 72 DPI)



Regional distribution of militaries played by Singaporeans (own work)

179x86mm (300 x 300 DPI)



British Malaya and Borneo in Hearts of Iron IV (top) and Majulah Singapura (bottom) (own screenshots)

406x256mm (118 x 118 DPI)

Table 1: Content release history of *Hearts of Iron IV*

Name	Date	Countries which received content
Hearts of Iron IV	06/06/2016	France, German Reich, Japan, United Kingdom, United States, Soviet Union
Poland: United and Ready*	06/06/2016	Poland
Together for Victory*	15/12/2016	Australia, British Raj, Canada, New Zealand, South Africa
Death or Dishonor*	14/06/2017	Czechoslovakia, Hungary, Romania, Yugoslavia
Waking the Tiger*	08/03/2018	China, Communist China, German Reich, Japan
Man the Guns*	28/02/2019	Mexico, Netherlands, United Kingdom, United States
La Résistance	25/02/2020	France, Spain, Portugal
Battle for the Bosphorus	15/10/2020	Bulgaria, Greece, Turkey
No Step Back	23/11/2021	Estonia, Latvia, Lithuania, Soviet Union, Poland
By Blood Alone	27/09/2022	Ethiopia, Italy, Switzerland
Arms Against Tyranny	10/10/2023	Denmark, Finland, Iceland, Norway, Sweden
Trial of Allegiance	07/03/2024	Argentina, Brazil, Chile, Paraguay, Uruguay
Götterdämmerung	14/11/2024	Austria, Belgium, Congo, German Reich, Hungary
Graveyard of Empires	04/03/2025	Afghanistan, British Raj, Iran, Iraq
No Compromise, No Surrender	20/11/2025	Japan, China, Communist China, Philippines
Peace for Our Time	2026	Czechoslovakia
Thunder at Our Gates	2026	Australia, Indonesia, Siam

* Except for *Poland: United and Ready*, which was a complimentary release, these DLCs were integrated into the base game in 2024 and 2025 and cannot be purchased anymore.

Table 2: Content release history of *Arma 3*

Name	Date	Notable content
Arma 3	05/03/2013	
Zeus*	10/04/2014	Game master role
Karts	29/05/2014	Vehicles
Helicopters	04/11/2014	Vehicles
Marksmen	08/04/2015	Weapons
Apex	11/07/2016	New campaign in South Pacific
Jets	16/05/2017	Vehicles
Malden*	22/06/2017	Map of first <i>Arma</i> game
Laws of War	07/09/2017	Non-combative gameplay
Tac-Ops	30/11/2017	Missions
Tanks	11/04/2018	Vehicles
Global Mobilization - Cold War Germany	29/04/2019	Creator DLC set in alt-historical 1980s Cold War
Contact	25/07/2019	Spin-off with extraterrestrial encounters
Art of War*	23/02/2021	Community art
S.O.G. Prairie Fire	06/05/2021	Creator DLC set in Vietnam War
CSLA Iron Curtain	16/06/2021	Creator DLC set in alt-historical 1980s Cold War
Western Sahara	18/11/2021	Creator DLC set in contemporary desert
Spearhead 1944	25/07/2023	Creator DLC set in World War II
Reaction Forces	26/03/2024	Creator DLC
Expeditionary Forces	26/11/2024	Creator DLC

*These DLCs are free of charge. *Art of War* was part of a charity sale.