

Chapter 5

Interface Analysis: Notes on the “Scopic Regime” of Strategic Action in Real-Time Strategy Games

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Introduction

This chapter argues for the necessity of a refined interface analysis of popular computer games, focusing on real-time strategy games (RTS). To begin, though, I will describe the broader theoretical assumptions that provide a context for interface analysis and its use in video games.

For several reasons, video games in general are extremely complex objects when it comes to media analysis. First, video game aesthetics have been significantly influenced by traditional media, such as film, television, comics, and literature (see Veugen, Chap. 3). Additionally, video games are connected with their own growing aesthetic traditions, which have been evolving since the rise of video games in the early 1970s. Beyond these influences and traditions, we must take into account the procedural and dynamic character of computer games as time-based interactive media, namely, the fact that the course of a game sequence is dependent on the actions and decisions of the player within the restrictions specified by the program code. As such, a game sequence, as a kind of audiovisual text, and the related production of meaning are constituted in a process that can be described as a coproduction of signs, actions, and technical arrangements.¹ The prominent Norwegian game researcher Espen Aarseth referred to this process as “a symbiosis of sign, operator, and medium” (Aarseth 1997, 55).

German game researcher Britta Neitzel has analyzed the procedural involvement of a player in the production of actions and meaning in video games as a relation

¹For a design-oriented approach to the problem of meaning making in relation to game design, see Friess, Chap. 16.

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between “point-of-view” and “point-of-action” (Neitzel 2008, 100). “Point-of-view” describes the level of visual representation and the gaze and “point-of-action” relates to the positioning of a player as a relative agency within the game world.

For the purpose of game analysis, all of this information points to the necessity of paying attention to a player’s actions within the game. Aarseth, along with Markku Eskelinen, proposed the term “user function” for this purpose. Aarseth and Eskelinen distinguish between three main user function types: explorative, interpretative, and configurative (see Aarseth 1997, 64; Eskelinen 2001, n.p.). Following these assumptions, Lauri Taylor has pointed to the importance of the spatial dimension in video games as a main area of game experience, writing, “video game spaces [...] are experiential spaces generated through code and the player’s interaction with the execution of that code through the medium of the screen.” Taylor calls for a “theory which explains how the player operates both on the game space and within the game space” (Taylor 2003, n.p.).

Espen Aarseth has introduced the term “ergodic” to describe the specific work of players navigating their way through a game or a “cybertext.” The term “ergodic,” according to Aarseth, derives from the Greek *ergon* and *hodos*, meaning “work” and “path.” It describes the characteristics of certain media products, where a “nontrivial effort is required to allow the reader to traverse the text” (Aarseth 1997, 1). If we apply this concept of the ergodic to video games, the interface plays a key role since the actual “work” of the performing players is always mediated by the interface. The user interface of a game can be seen as a kind of conduit, through which the players gain access to game-specific information, options for actions, game events, as well as access to the game world in general, and more specifically to its audiovisual representations.

Furthermore, it is the interface that defines the pragmatic dimensions of the explorative, interpretative, and configurative “work” of a player. It also defines the particular interlacing of the point-of-view and point-of-action of a given game, an interlacing that characterizes computer games as digital media products. In other words, the ergodic nature of a video game, understood as the necessary “work” of players on the way through a game, is always a work on the interface or “with” the interface.

But even if all the actual “work” in computer strategy games is always arranged and mediated by the interface as an overall structure, we might still not grasp all the dimensions of meaning that a game produces, implies, and resonates with just by analyzing its interface. On the other hand, it is very likely that we will miss the specificity of computer games as cultural artifacts if we do not take into account the role of the interface as a key element of computer-mediated experience and digital aesthetics.

The analysis of the functioning of interfaces can be regarded as one of the central elements of almost any approach to the issue of “interactivity.” This is because the handling of an interface is a necessary precondition of access to any participatory aspect of computer games. Its mastery is in many ways directly interwoven with the promised pleasures of the game world (e.g., as ergodic obstacle, as implicit telos or challenge, or as “ludic poiesis” – an action that transforms and continues the game world).

Thus, games do require a specific “knowledge of action” that must be adopted by understanding the “meaning” of various interface elements and their pragmatic functions.

Despite this central importance of the interface, its analysis is almost completely ignored or only treated marginally in many computer game approaches.² Regarding the lack of interface analysis, my argument would be that without the attention to basic interface structures, their functions for the actual game action, as well as their semantic and affective implications, any concrete analysis of video games – at least if we want to take into account the specificity of their procedural and performative characteristics – will remain necessarily incomplete.

Focus on Strategy Games

In this chapter, I will discuss some of the functions and meanings of interface structures of video games with respect to their performative, semiotic, and cultural dimensions. For several reasons, I want to limit this discussion to the common interface structures of real-time strategy games. I adopt this specific focus on a single genre because of its direct relation to the framework of the research project “Strategy games: management techniques and strategic action in popular computer games (on the example of economic, military and reconstruction simulations),” initiated and directed by Prof. Dr. Rolf F. Nohr.³ In this project, we are evaluating certain methods of game analysis and focusing explicitly on strategy games and on specific discursive formations of strategy and strategic thinking. In this context, we find it necessary to ask even some very basic questions like “What is strategy?,” “What is a strategy game?,” “What is a game genre?,” “How does a society communicate about strategy and what are the means and media employed to stabilize and to distribute certain – culturally formed and historically changing – concepts of ‘strategy’?” (for an elaborated model on the circulation of strategic knowledge in such games, see Nohr, Chap. 8).

My focus on strategy games is therefore also motivated by the specific demands of our research project. But at the same time, the limitation to a single genre also offers some serious theoretical advantages that are directly related to the approach of interface analysis. In what respect? We have observed that video games are, first, very creative and diverse when it comes to their interface designs. No other form of

² There are only a few approaches to game analysis that attempt to include the study of interfaces within their methodological framework. One noteworthy exception can be found in Consalvo and Dutton (2006). Mia Consalvo and Nathan Dutton describe a general framework for qualitative game analysis, offering a “toolkit” for the study of video games. “Interface Study” is one of the main, but still underdeveloped, categories within the “toolkit” of Consalvo and Dutton. The approach developed in this chapter can be read as a contribution to this toolkit and as a specific elaboration on the category of “Interface Study.”

³ More about the project can be found online: <http://www.strategiespielen.de>. Accessed 23 Feb 2011.

popular media possesses such a broad spectrum and substantial variation of interfaces and is so deeply dependent in its aesthetic expression on specific concepts of user interfaces. And second, we find that certain games differ from each other or resemble each other formally precisely by their interface aesthetics (this includes hardware interfaces, game controllers, menu structures, game-related navigation, visual information styles, etc.).

If we, in the field of game studies, still rely on the concept of “genre” as a specific category to sort games into groups and to make some useful generalizations, we do this with regard to the immense diversity of computer games. Usually, we look for certain family resemblances between different games, which occur very often as structural homologies at the level of interface structures. From the point of interface analysis, we can suppose that there is a simple rule that connects interfaces and genre formations: *The repetition of interface structures is part of the process of stabilizing a genre and its corresponding “grammar of action.”*

Therefore, I think it would be possible to show, through a comparative study of different genres, that the emergence of genre conventions in computer games is associated with the establishment of common genre interface structures and metaphors, along with thematic, narrative, and ludic elements.⁴

If, in addition, one considers the interface as a conduit for the effective conduct of players in the game, as I have argued with regard to the meaning of the term “ergodic,” then the important question is about the relation of genre-specific game requirements (the work of the player) and common interface structures.

Interface as a Form of Cultural Grammar

Today’s computer games share a specific feature with contemporary graphical user interfaces (GUI) and operating systems (Mac OS, Windows, Linux): technically, they are optimized for fast response times, and their design principle allows for the manipulation of data structures through the manipulation of visual objects.⁵ Today, in most of the computer games, the dominant paradigm of graphical interfaces defines playful action as action performed on and with images. This is realized on the side of the machine through on-screen visualizations and initiated on the side of players through physical acts using controller devices such as the mouse, keyboard, joystick, gamepad, and others. For the theoretical analysis, both sides belong together.⁶

⁴For a distinct approach to the notion of “genre” with respect to computer games, see Raczkowski (Chap. 4) or Veugen (Chap. 3).

⁵A technical concept that dates back to the work *Sketchpad* (1963) by Ivan Sutherland.

⁶Despite this theoretical assumption, the scope of this chapter is, however, more or less limited to the side of on-screen structures, the images, and the graphical user interface. To analyze the side of player actions demands a different set of methodological approaches, which is beyond the reach of this chapter.

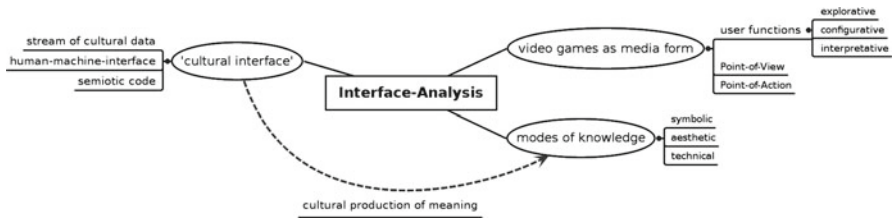


Fig. 5.1 Basic scheme interface analysis (Source: Author’s illustration)

Scholars in cultural and media studies claim that an interface should be understood as a complex code and as a meaning-making system. There is no such thing as an “intuitive” or “natural” interface since all interfaces need to draw heavily on cultural conventions and metaphors to be effective. At the same time, though, interfaces are attached to specific technical, symbolic, and aesthetic modes of knowledge.

Media scholar Lev Manovich wrote in his popular work *The Language of New Media* that “in semiotic terms, the computer interface acts as a code that carries cultural messages in a variety of media [...]. A code may also provide its own model of the world, its own logical system, or ideology; subsequent cultural messages or whole languages created with this code will be limited by its accompanying model, system, or ideology.” Based on this concept, Manovich coined the term “cultural interface” “to describe a human-computer-culture interface – the ways in which computers present and allow us to interact with cultural data” (Manovich 2001, 70). German media scholar Petra Missomelius further described the interface as a “complex of meaningful contexts” (Missomelius 2006, 89) (Fig. 5.1).

These theoretical approaches point forward to an understanding of the user interface as a type of cultural grammar. User interfaces are able to create a semiotic space in which perception, action, and technology are linked together in an interconnection of man and machine, thus constituting temporal manifestations of a “cybernetic continuum” (Millington 2009, 622). It seems clear that this specific mode of cultural knowledge holds some relevance for computer game analysis, especially since user interfaces are a key element to the understanding of the ergodic dimensions of video games.

To understand what features can be activated and controlled qua interface and how they are related to the objectives and tasks of the game environment, functions and meanings must be mutually linked. June H. Park has described this interrelation as the central “semiotic aspect” of the interface (Park 1999, 53). The elements of an interface would thus be interpreted not merely as signifiers that point to a virtual object or function, but as representations related to action within a specific semantic context.

To summarize this theoretical starting point: a functioning interface (according to the GUI model) can be understood as a form of cultural grammar, as a semiotic space, which conventionalizes perception, action, and operative functions in the

coupling of man and machine. As a “complex of meaning” (Park 1999, 53), interface structures include forms of cultural knowledge, and inversely they feed back particles of signification into a constantly changing pool of cultural production of meaning. The interface analysis therefore must not be restricted to the functionalist description of icons, objects, and symbols, but can include all forms of meaning production and all actions of players in relation to the structural and aesthetic organization of the inputs and outputs of a game.

Real-Time Strategy Games

Real-time strategy games (RTS) are one of the most successful subgenres of contemporary computer strategy games. RTS evolved as a discrete and recognizable subgenre in the early 1990s with quick commercial success. More than ten million units of top-selling games like *Starcraft* and *Command & Conquer: Tiberian Sun* have been distributed to players around the world.

The market for real-time strategy games is highly differentiated, but nevertheless clearly dominated by a few companies, among them Blizzard Entertainment and EA – Electronic Arts, both based in California, USA.

The most important characteristic of RTS as a subgenre is the specific game system, which can be described as a combination of war game elements combined with elements of a simulated economy. These elements become fused into a new formula that can be defined as *harvest* → *build* → *destroy*. Before going into battle, players must build production chains and attend to unit logistics, war equipment, and other supplies (Fig. 5.2).

In order to start a production chain, players must harvest natural resources. The exploitation of raw materials such as lumber, grain, and metals is used to build

Subgenres of Computer Strategy Games			
	main objects of strategic decisions	Popular Examples	Subsubgenres
Wargames	Army, Fighting Units	Gettysburg, America's Army, Rainbow Six Series	Historical Wargaming, Tactical Shooter, ...
Realtime-Strategy-Games	Economy and Army; Production Facilities, Infrastructure and Fighting Units	Command&Conquer, Warcraft, Starcraft, Age of Empires	Different 'Theming' (Fantasy, History, SF, ...)
Managment-Games	Company, Industry, Financial Transactions	Zoo-Tycoon, Football-Manger	Business-Simulation, Sport-Management, ...
God-Games	City, Country or Society; Economic, Cultural and Military Investments	Civilization, SimCity, Spore, Anno Series	Gouvernment-Games, Creature-Games, ...

Fig. 5.2 Subgenres of strategy games (Source: Author’s illustration)

infrastructure, factories, or weapons systems. So-called investments in research and development, as well as upgrades, result in shorter production cycles, more efficient utilization of resources, and more effective weapons systems. Controlling these production chains, and aiming at maximum exploitation and efficient processing of raw materials, defines the characteristic order or sequence of game events and the corresponding player actions in RTS games, with their three phases of (1) development, (2) expansion, and (3) battle.

The Work of Strategists: Production Management and Monitoring

What kinds of strategic action and strategic knowledge are culturally produced and reproduced in RTS? What is the player doing? More specifically, what configurative practice of the player becomes strategic action?

First, the cycle of *harvest* → *build* → *destroy* found within the game system itself predominantly defines most of a player's strategic work. Constant monitoring and control in order to ensure maximum productivity is part of the typical ergodicity of RTS.⁷ In order to optimize all relevant operations, the control and surveillance of single objects and their characteristics (micromanagement) is necessary as is economic decision making and the manipulation of complete unit formations (macromanagement).⁸

Due to the economic aspects of RTS, a key element of the strategic task that a player has to accomplish is the adaptation of economic routines. Further, ongoing cost-benefit analyses, planned system refinement, management of resources, along with the prospective calculation of future supplies are all required actions. In addition, the game is simultaneously about the logic of surveillance and control. As strategist, the player is always planner, supervisor, and manager. The precise control of the activity of individual characters in RTS games, wherein detailed game play elements must be manually addressed by the player, is similar to the understanding of *micromanagement* in business, where a manager closely observes or controls the work of the employees. Conversely, *macromanagement* requires decisions to be made at a higher level, usually regarding general economic aspects of the game or strategic planning about how to use larger formations of fighting units.

⁷ For a more detailed discussion on “ergodicity” with regard to its relevance for the concept of genre in video game analysis, see Apperly (2006).

⁸ The terms micromanagement and macromanagement are used to describe certain tactical and strategic actions in RTS. The terms are derived from economic theory. A detailed description is provided by Wikipedia: [http://en.wikipedia.org/w/index.php?title=Micromanagement_\(gameplay\)&oldid=318927077](http://en.wikipedia.org/w/index.php?title=Micromanagement_(gameplay)&oldid=318927077). Accessed 9 Oct 2009; <http://en.wikipedia.org/w/index.php?title=Macromanagement&oldid=300439780>. Accessed 9 Oct 2009.

The Work of Control, Controlling the Workers

Let us take *Age of Empires* as an example. Part of micromanagement in *Age of Empires* is to command single human figures to chop wood, go hunting, till the soil, and work with a pickaxe in the mine in order to acquire basic resources that will be used to further progress in the game. If a single unit is selected in the classic RTS game *Dune II – Battle for Arrakis*, it responds in a military tone, shouting, “Yes, Sir!” The focus on raising productivity by activating and controlling single units is also literally audible in the ever-popular *Warcraft III*. In this game, the Peons, the working class of the Orcs, respond to the player’s commands with the unmistakable exclamation, “Work! Work!”

One of the main strategic tasks of the player is to ensure high productivity. In fact, one of the main strategic tasks of players is really to reach and uphold an increased labor productivity rate. From this rate, it follows, that idle subjects are a waste of time and resources and they point to a less than optimal exploitation of productivity capacities. Idle nonplayer characters (NPC) can be kept track of by a critical glance at the map or corresponding visual displays.

Age of Empires II incorporated a special button to make it easier for players to ensure high productivity and to fulfill the task of controlling the workers. It is labeled “Idle Workers” and is placed right next to the mini-map. With a few clicks of the mouse, players navigate to the NPC’s position, where they can activate the workforce and (re-)integrate the virtual workers into the machinery of production. If all NPC are always working and the screen is filled with images of optimized productivity, the player-manager may rest for a second, feeling secure that he or she will master the coming challenges of the game.

RTS-Interface Analysis: The Logic of the Map

The spatial and visual aspects of the interface are extremely relevant to all of these operations. The spatial order of the RTS game, which is linked to the cultural tradition of cartographic representations of space and territory, puts the player in a powerful position from which he may command the ongoing game. The cartographic view and oversight offer instant access to a huge number of single working and fighting units (Fig. 5.3).

Indeed, it is the dominant logic of the map that informs the interface paradigm on several levels. Let us take a closer look at the typical interface structure of RTS.

This screenshot (Fig. 5.4) shows the recognizable pattern of the user interface, common to most of the RTS games on the market. The screen is split into different areas. First, there is a separation between the area dedicated to navigation and control and the main-map/main view of the territory.

The area of navigation and control again is separated into three different areas. First, there is the mini-map, dedicated to navigation and overview. Next to the mini-map is a second area that provides information about the selected objects in the



Fig. 5.3 Screenshot of *Age of Empires III* (2007)

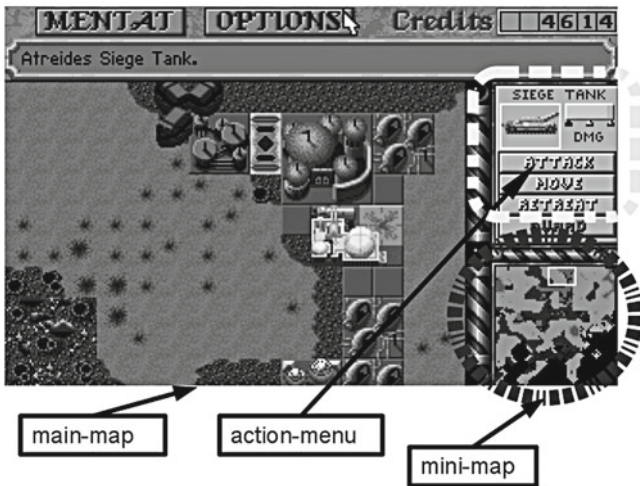


Fig. 5.4 Common RTS game interface: screenshot of *Dune II* (1992)

main-map. Third, there is a complex menu with icons of selectable objects, especially buildings. This third menu area also offers a variety of actions, depending on the selected class of objects.

Interestingly, almost every RTS game uses two separate cartographic views that correspond to different cartographic functions and player actions. The main area of the interface or main-map is largely identical with the actual on-screen playing field and occupies the major part of the screen. The often used mini-map is of a different scale and often represents a complete view of the total on- and off-screen playing field, which is, in the idiom of gaming culture, simply referred to as “the map.”⁹

The main-map is mostly the area for direct actions on the represented characters and objects, such as the mining of resources, the building of bases, and tactical battles. The mini-map, in contrast, is used for overview, fast navigation, and specific information management.

As I mentioned, the spatial arrangement of RTS is connected to the cultural tradition of cartographic representation of spaces and sceneries. The cartographic view gives the player a powerful position from which he can control the ongoing game events. This overview is a kind of power of the gaze, giving access to a variety of individual “screen agents” that are at the command of the players and are to be regarded – within the narrative framing of the game – as labor forces. Thus, the model of the map constitutes the dominant interface paradigm of real-time strategy games.

Corresponding to the requirements of gaming, the interface serves as an iconic window into illusory spaces and a virtual control board (Missomelius 2006, 79). This correspondence points to a shift in which the map becomes an interface. “The map,” wrote Norman J. W. Thrower in *Maps and Man*, “is a sensitive indicator of the changing thought of man, and few of his works seem to be such an excellent mirror of culture and civilization” (Thrower, as cited in Wilford 1981, 14). This is also true of the map-as-interface in RTS, as it incorporates a cultural tradition of maps as means of power and knowledge, at the same time showing the transformation of this tradition in contemporary digital media.

Players not only learn how to read and interpret maps but also how to use them, specifically by navigating through virtual space with the use of the mini-map and the main-map and by activating construction icons in the control area to place buildings on the main-map.

What represents a very important shift is that maps have become directly linked to the ability to change the territory. Orders on the map are instantly executed on the territory and vice versa. In this regard, maps and territories are rendered the same within the virtual realm. The key function of the map becomes obvious if we realize that any user function related to strategic actions is either performed directly on the graphical representation of a map or is related to the territory, which itself is symbolized or represented by a map in a cartographic mode.

⁹This interface structure is found consistently in numerous games of the genre and can already be found fully implemented in *Dune II* (1992), which is widely considered one of the most influential ancestors of contemporary RTS.

Scopic Regime of Real-Time Strategy

The presented screen space and its graphical displays form a specific visual order that can be described – borrowing a concept coined by the cultural historian Martin Jay – as a “scopic regime” (Jay 1988). The concepts of control, monitoring, and economic productivity are part of the strategic work of the player and are key elements of the “scopic regime” that is established and reproduced in real-time strategy games.¹⁰

As I will argue in the following analysis, the scopic regime of RTS is characterized by the interplay between two different and in some ways opposed cultural concepts of space. *My thesis is that the ability to switch fluently, seamlessly between these spatial concepts is one of the core elements of the ergodic requirements of this genre.*

The different concepts of space show a structural correspondence with the two versions of the map, mini-map and main-map. One notable difference can be found in the concept of navigation and its relation to information, space, and territory. Hence, the navigation through virtual space presents a striking field through which we can observe the differences between these two modes of map-as-interface and as spatial metaphor (Fig. 5.5).

While one moves through space using the main-map, all attributes of the crossed terrain remain recognizable (visible). Mountains or lakes, for example, are obstacles within a given territory. With the mini-map, in contrast, space tends to dissolve into merely abstract positions.

Navigation on the mini-map, first of all, means solely navigating the gaze over the territory of the game. With very few mouse gestures, a player can jump to the farthest places with the speed of thought, no matter what the concrete attributes of the territory may be. Further, the territory has no resistance to the flexibility of the gaze.

¹⁰ Martin Jay used this term to discuss the historical and cultural variation of visual regimes. In his famous essay *Scopic Regimes of Modernity* (1988), he discusses the specific dominance of the visual as characteristic of western modernity. The starting point is the question of western ocular-centrism and linear perspective as a cultural perspectivation of the world with numerous philosophical, aesthetic, and cultural implications (in art history, Erwin Panofsky investigated some of them in his famous essay on *Perspective as Symbolic Form* (1927); in philosophy, they are associated with the ideas of Descartes, query, etc.). Jay contributed to the ongoing discussions about the concepts of a dominant visual paradigm and a specific “order of vision” in modernity by arguing for a pluralist point of view; he argued against the idea of a solitary regime and pointed toward the variety of numerous modes of perspectives and perspectivation, constituting a “contested terrain”; modernity could thus be characterized by “a differentiation of visual subcultures” (Jay 1988, 4). But Jay is not the inventor of the term “scopic regime”; he borrows it from French film theorist and semiotician Christian Metz, who studied cinema as a specific “scopic regime.” According to Metz, cinema can be characterized by the fact that it gives us “a primordial *elsewhere*, infinitely desirable (= never possessible) on another scene” (Metz 2000, 59). In psychoanalytic film theory, which was deeply influenced by Metz’ work, the idea of “scopic regime” is associated with the voyeurism of cinema, curiosity, and the Lacanian concept of “lack.”

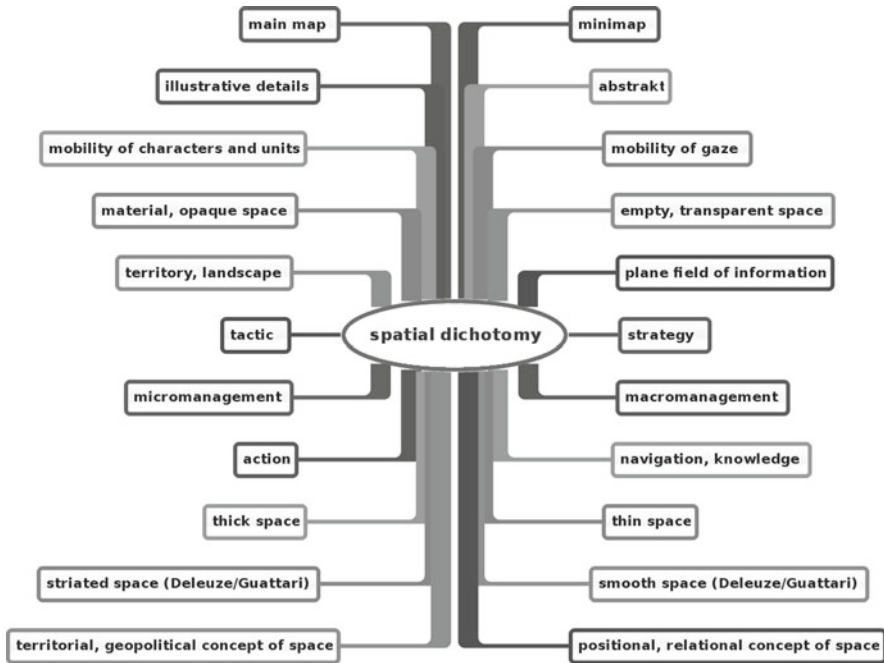


Fig. 5.5 Spatial dichotomy in RTS (Source: Author’s illustration)

The mini-map transforms the perception of space into the perception of an abstract field of information. Characters, buildings, objects, and topographical markers are reduced to mere positions and a palette of symbolic colors.

Also, the immersive properties of the two versions of a map are very different. On the main-map, a player may experience the feeling of being directly involved in the action, sucked in, so to speak, but might not have the same experience with the mini-map. The mini-map acts primarily as a de-territorialized information space and field of navigation. The main positioning of a player is characterized by distance and oversight.

Oscillation Between Territory and Cybernetic Navigational Space

Throughout the game, a permanent oscillation usually takes place between the mini-map and the main-map, and thus between a disembodied gaze and the attachment to graphical (game) characters as representations of the player’s agency within the game world.

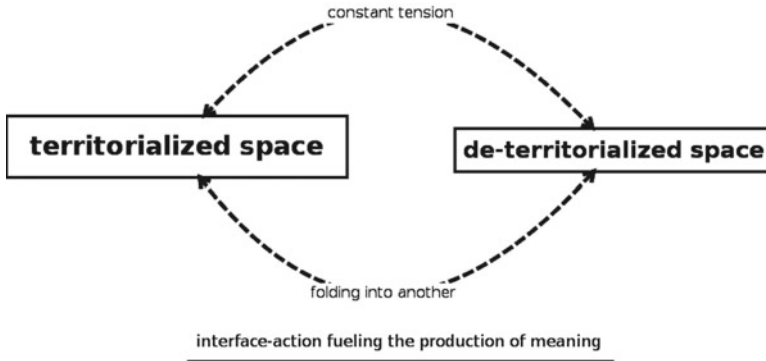


Fig. 5.6 Shifting spaces – lubricant to sociocultural ideologems (Source: Author’s illustration)

The strategic paradigm and its ergodic dimension require a player to oscillate constantly between an abstract space of navigation and information. At the same time, the player must navigate the territorial sphere of action, a space that must be traversed and conquered. There is thus an oscillation between the logic of the map and the territory, between smooth and striated space, between the disembodied gaze and subjected agency.

The strategic paradigm and its ergodic dimension constitute a semiotic structured space of perception and action that can be applied to fictitious desert planets (*Dune II*) in the same way that the historical and political geography of European colonialism is represented in *Age of Empires*. Primarily, this represented space comes into action with a view toward controllability and governability. This view condenses into the concept of cybernetic space, as defined by the mini-map interface.

The corresponding de-territorialized gaze is similar to a kind of machine vision, defined by the processing of data and symbols. At the same time, the de-territorialized mobility of the gaze, mediated by the mini-map, configures vision as an abstract and disembodied function. The visible space is subjected to the controlling eye that gains power by erecting a cybernetic prosthesis. Vision slides into a mere function as it is steered into a posture of navigation and control.

In a different way, however, the interface promotes an extensive re-territorialization of the produced and imagined spaces, depending on the narrative context. There is a key role in the interplay of point-of-view and point-of-action with respect to the symbolic representation of the political geographic spaces. By performing actions on the map that lead to instant changes of the presented territory and by ensuring that these events are valued, the interface is constantly reattached to elements of narration. The map-as-interface defines the screen space, sustained by conventional iconography and narrative embedding such as displays of nations, planets, cities, and cultural or phantasmatic landscapes. Political assessments and cultural values are attached by these operations to the re-territorialized cartographic spaces through actions of competition and control (Fig. 5.6).

The military and economic competition is then explained, justified, and often ideologically naturalized by changing micronarratives. Depending on the desired

“flavor,” this can be the everlasting struggle between adversarial “races” (*Starcraft*), the retelling of Greek Mythology (*Age of Mythology*), the virtual history of European colonialism (*Age of Empires III*), or themes from common fantasy worlds (*Warcraft*).

The characteristic split into different views of a map can first be understood as purely functional, and in terms of its specific options for on-screen action and corresponding tasks, these structural elements of the interface are seemingly indifferent to the narrative content of the games. This kind of “indifference” is part of why this interface structure could serve successfully in a whole range of real-time strategy games. The interface appears here first as “merely functional” and “neutral” compared to the respective narrative contents and actions. But if we consider the production of meaning qua interface, then it seems that it is precisely the practice of switching seamlessly between information space and territory that constitutes the plane on which the historical, political, and economic narratives of expansion, conquest, and control are connected with the practical knowledge of cybernetic interfaces and merged into symbolical dense space. The interface here acts both as a vehicle for a playful adaptation of strategic knowledge, economic imperatives, and attitudes of perception like monitoring and as a lubricant to the ideological reconnection of the data space/virtual space with sociocultural and historical ideologems.¹¹

Conclusion

Interface analysis offers some promising starting points for a hermeneutics of digital media, especially with regard to conventional genre structures. In RTS, even a short analysis suggests an intense interlink of strategic know-how with the regulation of visual perception or, in other words, with a specific scopic regime. Essential to RTS, this scopic regime may enforce specific actions while inhibiting others. A successful performing player will change constantly between two opposing modes of gaze, two different views that are mutually folded into one another. These opposing modes of gaze correspond to different cultural concepts of space that must be engaged in the process of strategic action. The distinction between these concepts is materially condensed within the structure of the interface, namely, in the separation of the mini-map and main-map.

The sophisticated alternation between mini-map and the main playing field corresponds to the combination of the basic tasks of micro- and macromanagement. Therefore, the territory is folded into a cybernetic control space and vice versa.

Both strategic knowledge and strategic action in real-time strategy games are defined by a specific order of map and territory. There is a tension between the cybernetic control on the one hand and the “dense” space of the playing field on the other

¹¹ Ideologems are modular building blocks of ideologies.

hand, where the participating agents (players and NPC) compete against each other in the struggle for expanded zones of influence and power. It is a playing field that is more than saturated with re-territorialized symbolic and cultural propositions and where the interface structure has influence on the specific production of meaning within the gaming process. Since the user interface draws heavily on cultural traditions of spatial representation, strategic knowledge and strategic action are formed within a specific media arrangement and its conditions of agency and perception.

The production of meaning can be considered a kind of machine fueled by the tension within the interface structure. The tension between the cybernetic control space and the thick space of the main-map, a space characterized by competition between players trying to expand their spheres of influence (re-territorialized space), is saturated with cultural-symbolic propositions.

If we examine other genres than real-time strategy games in order to compare different game genres, we find that the general notion of “genre” is deeply interwoven with specific modes of representation, information management, and specific grammars of action. *First-person shooters*, for example, share some crucial interface characteristics that are part of the specific genre structure. Usually, space is constructed with linear perspective in a manner that puts the focus on the player as the *origin* of space by enhancing the power of the gaze as a key element of the formal representation of space. Stephan Günzel therefore described first-person shooters with regard to a phenomenological tradition as a formal representation of an ego, “I” or “Egoleib” (Günzel 2009, 343), while other authors have argued that the first-person view in games could be interpreted as the return of a transcendental, “Cartesianesque” subject and the “myth of the autonomous self” (Shinkle 2003). In each case, the interface is interpreted by its ability to define a typical subject position.¹² In first-person shooters, this subject position is characterized by the specific constellation between point-of-view and point-of-action as well as by the genres specific “grammar of action.”

If critical interface analysis can contribute to the understanding of games, it is necessary to go beyond the concept of the interface as a means to an end, a mere tool. Instead, we need to pay more attention to its structuring capacities because the interface is in many ways affected by different modes of cultural knowledge. Increasingly, the various user interfaces appear entangled within a certain excess of meaning production and its social machineries. In turn, our user interfaces have themselves become part of the production of meaning: They are a decisive component of our technologically mediated experiences and of the social machinery of cultural (re)production.

¹² Taken as a formal setting, a preset of any individual player action, interfaces can be analyzed as a force of structuring the preconditions of any actualization or instantiation of individual game sessions. One could say that interfaces define the possible ranges of “empirical” player subjects by structuring their “ideal” positioning. Therefore – at this stage of game theory – interface analysis as an approach to game analysis is not a tool for the examination of socioempirical player behavior but for the analysis of computer games as complex media forms, their specific way of reproducing and transforming sociohistorically and culturally defined player positions.

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Computer Games and New Media Cultures

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