A History of Real-Time Strategy Gameplay From Decryption to Prediction: Introducing the Actional Statement

Simon Dor

Université de Montréal

It is quite usual in strategy games to claim that strategies have a history of their own, chess being the canonical example (Murray 2002). The common strategies of a certain game change over time—often called the "metagame"—and can be retraced from a historical perspective. *StarCraft II*'s (Blizzard Entertainment, 2010-) community goes as far as to write histories of specific matchups (Alejandrisha et al. 2012), but every strategy game in some regards opens a space where gameplay can evolve.

A 2009 walkthrough of the 1994 game *Warcraft: Orcs and Humans* (Blizzard Entertainment) states that the "reason most people think this game is so hard, is because they try to play it like an RTS [Real-Time Strategy game]" (Boehmer 2009, §2.03). It is quite surprising today to read this claim, considering *Warcraft* is widely regarded as one of the pioneers in the RTS genre, alongside with its Westwood's earlier counterpart, *Dune II: The Building of A Dynasty* (Westwood Studios, 1992). In the perspective of mapping a history of the RTS genre, this kind of statement is quite problematic. Playing a RTS in 2009 is not like what was playing a strategy game in 1994, but how can we as researchers take into account a historical distance in playing habits?

Warcraft's difficulty was probably raised retrospectively, since playing habits acquired in subsequent games induce certain types of actions that do not necessarily favor victory in earlier releases. The most evident example is the emergence of competitive play at the beginning of the 2000s: RTS in the e-

sport era is certainly not the same RTS as it was by the end of the 1990s. As Henry Lowood suggests (2004), the history of videogames is not the history of the objects, but of an activity, and every historical and archival practices must address the difficulties that it implies. Game studies need to see beyond a certain technological and formal determinism. The history of gameplay is not inscribed in videogames as objects.

Dune II is widely considered the most influential RTS. It is usually said that subsequent RTS lack innovation by keeping *Dune II*'s basic 2D gameplay (Egenfeldt-Nielsen, Smith and Tosca 2008, 86). They are usually seen as

> more advanced derivatives of Dune II's basic game mechanics. Resources were harvested via collectors, bases were built, units were produced, battles were fought, and victory was achieved. Dune II is undoubtedly the single most influential title in RTS history and will live in the hearts of RTS gamers for all time for that simple fact (Adams 2006, 1).

From a gameplay perspective, *Dune II* is not necessarily the *first* RTS. In fact, it lacks an element crucial to most RTS gamers today: a multiplayer mode. But the very notion of a "first" RTS is problematic in itself. André Gaudreault and Philippe Marion argued (2006), from the perspective of the history of media, that a single and absolute starting point is an unnecessary theoretical concept. Defining this starting moment always depends of at least partly arbitrary criteria, and no "first time" is a defining turning point which changed irremediably their contemporaries. RTS, like any cultural manifestations, became what it is today by a long-term process of institutionalization, rather than in a single instant. As a matter of fact, we shall see that most *Dune II* reviews did not see it as a game-changing release[1].

---

[1] Some of these reviews are borrowed from or originally found in Jonathan Lessard's gaming magazines digital collection and I deeply thank him for granting me (among others) access to this material.

59

_____
Kinephanos, ISSN 1916-985X
History of Games International Conference Proceedings, January 2014, www.kinephanos.ca

If *Dune II* and *Warcraft* were not played as RTS are played today, it seems fair to argue that *Dune II* is not the first RTS, and actually was not a RTS at all on its release date. But from a gameplay perspective, how did classical RTS emerge? This answer probably lies on two different but complementary scales: the emergence of RTS as a gameplay concept and the emergence of common RTS strategies. The latter would instruct us of how playing evolved in gaming communities to the point where new forms of gameplay emerged, while the former would indicate more precisely when and to which extent RTS were considered a distinct branch from other genres, such as *wargaming* and turn-based strategy for instance.

This project is quite ambitious to be exhaustively explored here, but beginning this work needs methodological investigations. Mapping the emergence of some basic RTS strategies needs a tool that I aim to elaborate here. I shall argue here that the concept of "actional statement" (which I call *énoncé actionnel* in French) can be used as a methodological tool to describe the institutionalization of common strategies in a specific genre. I seek to describe archeologically how strategies emerged within a game community or within a genre by going beyond analyzing videogames as objects.

1) Discursive formations and actional statements

From a researcher's perspective, learning practices from a lot of different communities can be quite difficult, as playing and mastering games take time, especially when they are played at a high level of competition. An eventual macro-history even of a single genre needs first a smaller-scale history, in order to underline the emergence of some strategies or common actions.

> Until multi-game sites such as GameReplays had emerged, RTS communities were almost invariably closed communities that had little to do with one another. An expert Starcraft player would generally know very little about Total Annihilation [TA], except that the TA players who kept talking about how superior TA was had no idea what they

were talking about. The opposite was equally true; no one
could see the forest for the trees (Phantom et al. 2008, 4).

But the question is: if there is no link between gaming communities, is there
any forest at all to be seen? What are the conditions in which we can define any
form of continuity between objects or practices? That is one interrogation that
already emerged in Michel Foucault's work. "Forms of continuity" do not
emerge by themselves, "but are always the result of a construction the rules of
which must be known, and the justifications of which must be scrutinized"
(Foucault 2010, 25). Any concept is a form of continuity in the sense that it
links objects, practices, methods. These links in discourses are regrouped by
Foucault in the concept of "discursive formation," within which the keyword is
"regularity." Whenever,

> … between objects, types of statement, concepts, or
> thematic choices, one can define a regularity (an order,
> correlations, positions and functionings, transformations),
> we will say, for the sake of convenience, that we are dealing
> with a discursive formation … (Foucault 2010, 38).

To this extent, RTS as a genre is a discursive formation: we can define
regularity in gameplay, in audiovisual representation, as well as in their
description and denomination in game reviews. But more precise discursive
formations can also be defined for a more "gameplay-centric" analysis. I
suggest here that there are at least two different discursive formations are to be
seen in discourses on RTS gameplay, two different paradigms that could help
us better understand the history of the RTS.

In a lot of strategy games, from *Hamurabi/The Sumer Game* (Doug
Dyment, 1968) to *Civilization* (MPS Labs, 1991), as well as in *Dune II*, the
paradigm of decryption is dominant in gameplay. In this perspective, in order to
win, the player would for example need to know what their opponent will throw
at them, what triggers its actions, and make the right decision to counter these
attacks or evade these triggers. The archetypal figure is the "tower defense"
games. Either you know beforehand which waves of enemies will be sent at

you if you know the game in advance, or you don't, but in either case the goal is to understand the patterns encrypted in the game and to decrypt them in order to make the good decisions to win. In *Final Fantasy Tactics* (Square, 1997), the player has to deal with different enemies that have strength and weaknesses. If they lose against, say, an adversary that has a poison spell, they can use specific equipment to counter this the next time. The player does not have to figure out its obstacles as an opponent; they play against the game as a designed experience, and they have to guess what type of playing is expected of them, not how their opponent thinks. In this paradigm, meaningful play emerges from the fact the player is a privileged actor in the dynamic of strategies: for the game designers, the "optimal" player's experience seems more important than game balance.

However, in most multiplayer games, the paradigm of prediction changes how you see the game. In order to win, the player has to scout for their opponent and anticipate what they could do according to what they know of the rules of the games and of the gameplay habits. Consider a typical card game such as Bridge: in most hands, players can infer what meaningful cards could be in their opponents' hand, since one of the player's hands is visible and each of the 52 cards is only there once. Decisions would not be meaningful choices if the opponents' cards were not partially predictable. In this paradigm, the goal is to understand the potential actions of the opponents, these actions being predictable in most RTS by scouting their actual actions. Game balance is more important than specific player's experience, since every actor in the dynamic of strategies is or could be a human player.

In terms of gameplay, *Dune II* is inscribed in a paradigm of decryption, while the classical RTS gameplay that emerged in the late 1990s is inscribed in a paradigm of prediction.

I suggest the concept of actional statement in order to map the history of different kind of discourses on gameplay. The name "actional statement" derives from the idea of statement by Michel Foucault in *The Archeology of*

Knowledge. Its concept of statement is defined as the elementary unit of discourse (2010, 80).

> The statement is not therefore a structure (that is, a group of relations between variable elements, thus authorizing a possibly infinite number of concrete models); it is a function of existence that properly belongs to signs and on the basis of which one may then decide, through analysis or intuition, whether or not they "make sense", according to what rule they follow one another or are juxtaposed, of what they are the sign, and what sort of act is carried out by their formulation (oral or written) (Foucault 2010, 86-87).

A statement can be repeated, but under strict circumstances (105) determined by the domain in which it is considered as a statement (96). It allows an historian to make sense of a series of signs, which then can be argued as true or false. What Foucault describes as an archeological analysis consists of identifying apparitions and regularity of statements (144), and it is specifically what the actional statement concept is for.

A statement is "actional" in the sense that to describe videogame play is to describe actions. Actional statement will be defined here as the content of any description or transcription of an action or a series of actions, which is in a position of metatext towards the depicted action—that is, in a stance of commentary. These actional statements are to be found in game reviews, articles, strategy guides, and archiving means such as replays and video files. An actional statement is not the specific words, images, and sound used, but the idea of action that they can encompass through an external examination or intuition. It is always relative to the field or context in which it is used.

63

_____
Kinephanos, ISSN 1916-985X
History of Games International Conference Proceedings, January 2014, www.kinephanos.ca

> In its way of being unique (neither entirely linguistic, nor exclusively material), it is indispensable if we want to say whether or not there is a sentence, proposition, or speech act; and whether the sentence is correct (or acceptable, or interpretable), whether the proposition is legitimate and well constructed, whether the speech act fulfills its requirements, and was in fact carried out (Foucault 2010, 86).

Each actional enunciation implies a specific context. Strategy guides, reviews, previews, replays and video files each bring a different perspective on gaming history and shall be addressed differently by a researcher. A reviewer describing common *Dune II* strategies pretends to represent the whole game to a certain extent, while a replay of an *Age of Empires II: The Age of Kings* (Ensemble Studios, 1999) match does not. Nevertheless, replays can help us to see the emergence of gameplay figures at a certain point in time if we know from other sources that a given strategy was or was not widespread back then. A history of gameplay is necessarily tied to its sources, and each of them can be meaningful in different ways for the researcher if links between them are constructed.

For example, a walkthrough of *Dune II* claims that you should spread your buildings in order to avoid being hit by a Death Hand Missile (GRomaine n.d.), and a *Dune II* video playthrough show you a player that uses this strategy without explicitly claiming it (Eino 2010). We can affirm that they both propose different iterations of the same actional statement, even if they do not use the same medium of enunciation. Their status as a single object—as the same strategy—is of course always subject to refutability (Foucault 1969, 141).

Analyzing the viability of this strategy or its range needs its recognition as a single concept, and this recognition is subject to evaluation.

An actional statement is a researcher tool, and therefore does not have any ontological quality towards a text or a gaming sequence. According to the context of analysis—a specific match, a whole game, or even a whole genre—, the actional statements identified by a researcher will be more or less precise. A "rush" is enough to identify a common strategy in the RTS genre, but a "4 pool" is only applicable to *StarCraft* (Blizzard Entertainment, 1998), while it still belongs to the more general "rush" actional statement.

In order to better explain how this concept is useful from a researcher's point-of-view, I shall describe two scales where it can be applied. In terms of video games strategies, the actional statement can be used to analyze micro-descriptions of play in order to understand the emergence and institutionalization of different paradigms of gameplay in the RTS horizon. In the context of video games genres, it can be used to analyze macro-descriptions of play in order to understand the emergence and institutionalization of RTS as a general concept.

2) Micro-descriptions

What strategies link *Dune II* to subsequent games? In one of the first strategy guide of *Dune II* released in magazines, Jeff James (1993, 112) claims that speed and build order are important elements of gameplay, as it is in contemporary RTS. In fact, James argues that there is a single build order that should be functional in every scenario: windtrap, outpost, light factory,

windtrap, and refinery. Moreover, one reviewer criticizes the game for being only a run towards the best buildings and protection (Cusick 1993, 115), which is a common complaint against RTS.

The importance of scouting is a quite strong example on how the game changed from gamers' perspective. Scouting as a decryption tool is used to know what the player will face as obstacles and to respond accordingly. A *Dune II* walkthrough suggests scouting resource locations as well as the opponent's base at the beginning of a level, and then restarting the level with this acquired knowledge (DKennedy 1995). In order to normalize this kind of "cheating," *Age of Empires* (Ensemble Studios, 1997) added an optional rule where the map was revealed at the beginning of a game; in *Warcraft III: Reign of Chaos* (Blizzard Entertainment, 2002), the map topography and resource locations are already given to the player automatically.

The same walkthrough also claims that you should not "explore too far until you have built a good defence up. The computer at the start works on a strategy of 'If you can't see him, he can't see you!'" (DKennedy 1995). Of course, this strategy is not about anticipating an opponent's move as in chess, but it is all about tricking the computer opponent. Moreover, in order to counter the Death Hand weapon in the endgame, one author's main suggestion is to "save often" (James 1993, 113). For quite obvious reasons, these strategies are useless in multiplayer mode in later RTS.

As a prediction tool, scouting is used to know what your opponent has already done and to predict what he will do or what he could do to make meaningful choices. Say you lose against an army composition in which Siege

Tanks is dominant in a multiplayer game of *StarCraft*. From a decryption point-of-view, the main question you would ask yourself in order to win the next game would be: which strategy would be best against Siege Tanks? But, from a prediction point-of-view, you would have a more important question to ask yourself: will I have to face Siege Tanks? For in the next game there could be no Siege Tanks at all. *Dune II*'s walkthroughs thus give us the confirmation that it is not inscribed in a paradigm of prediction, but rather a paradigm of decryption of the designed experience. An important aspect of classical RTS is thus missing in *Dune II*.

3) Macro-descriptions

Dune II is often considered the game that coined the expression "real-time strategy" in its marketing description (Donovan 2010, 196). However, according to the Mobygames database, "real-time strategy" is nowhere to be found in its paratext: game box and manual do mention "simulation strategy game". In 21 reviews of *Dune II* written between 1992 and 1994, there is not a single mention of the expression that defines the genre.

But gameplay is not tied to the expressions used to describe it. The game experience is described as a "wargame/Sim City-esque cross-over game" (Winstanley 1993, 45), or even as a "strategy-based resource management simulation with a heavy real-time combat element" (Byron 1993, 63). The expression "real-time strategy" is obviously not part of the lexicon of these reviewers, but they are nevertheless trying to explain the basic gameplay of a RTS. Even without being mentioned explicitly, the concept of RTS is still to be addressed on a macro scale analysis of the genre.

Yet, it is also noteworthy that some reviewers can describe *Dune II* without referring to its real-time component in any way (Anonymous 1993; Latil 1993; Osborne 1993; Rand and Keen 1993; Roundell 1993; Winstanley 1993). Thus, the real-time component does not seem central to their gaming experience at the moment of writing their review. A constraint of time for writing their review could explain this missing part, real-time being probably an obstacle of importance in later levels, but it is essential to underline the absence of this element in a deep history of strategies in RTS. Having missed the real-time pressure in *Dune II* was possible even for game reviewers, thus revealing its absence in their gaming habits.

Other reviewers claim that it "does not have any original characteristics" (Feroyd 1993, 100, translated from French) or that it is "very similar to the first game" (Rand and Keen 1993, 75). Even if it can be seen as a certain ideal of earlier *wargaming* (Gill 1993, 68), it is not perceived as a ground-breaking game, seen as either part of the "strategy field" (Roundell 1993, 43), as similar to *Utopia* (Mattel Electronics, 1981) (Latil 1993, 58; Nuttall 1993, 57) or even in the footsteps of *SimCity* (Maxis, 1989) (Feroyd 1993, 100; 1993, 78; Byron 1993, 63; Gill 1993, 67; Latil 1993, 56; Nuttall 1993, 57; Winstanley 1993, 45).

Warcraft II: Tides of Darkness (Blizzard Entertainment, 1995) does mention the expression "real-time fantasy strategy" on its front cover, but the "fantasy" term dividing the expression reveals that it is not yet a common phrasing. A 1996 review of the game still does not mention the wording "Real-Time Strategy", even though "strategy" and "real-time" are mentioned separately:

68

_____
Kinephanos, ISSN 1916-985X
History of Games International Conference Proceedings, January 2014, www.kinephanos.ca

> Combining the best aspects of many strategy favorites —
> Dune II, Populous and SimCity — Warcraft II manages to
> create a truly unique experience that considerably improves
> upon its predecessor. A plethora of options and features have
> been added to the real-time war game engine of the original,
> making every aspect of the game, from combat to resource
> management, much more enthralling (Dulin 1996).

In 1997, while *Warcraft* and *Command & Conquer* series have already two games and an expansion set each, an article on the *Dune II* legacy still calls the game a "resource management wargame" (Smith 1997, 38). Real-time strategy as a single actional statement seems not yet fully established in video game reviews.

This macro-analysis shows us that the release of *Dune II* was not unanimously seen as the emergence of new ways of playing, although some reviews did mention its singularity. What it does reveal clearly is the fact that a new genre does not emerge with a release date: it is a process of institutionalization that takes time. As far as five years from the release of a game, its legacy is not as clear as some contemporary authors could argue.

Conclusion

On a micro-level, using actional statements as a tool for analysis shows that common strategies and gaming habits are not inscribed in the game as a formal system or as a technological construction. As similar as *Dune II* is from *Warcraft*, the latter can be inscribed in a paradigm of prediction in multiplayer mode while the former seems more inscribed in a paradigm of decryption.

69

_____
Kinephanos, ISSN 1916-985X
History of Games International Conference Proceedings, January 2014, www.kinephanos.ca

Micro-analyses are thus strong starting points in order to understand history of gaming in a more general sense.

On a macro-level, actional statements show us that the real-time strategy genre is a concept that did not appear with a single release, but slowly through a process of institutionalization in gaming habits. *Dune II* was effectively an original release and brought probably innovations that were necessary for further RTS games, but it seems that it did not change gaming habits as clearly as multiplayer games did. A game like *Modem Wars* (Ozark Software, 1988), which did not include resource management but introduced RTS-like battles and replays in multiplayer games, could be at least as important as *Dune II* in a history of real-time strategy gaming. Different games and gaming paradigms need to be investigated. The traces of institutionalization of RTS gaming habits are to be found in more than one place.

Thinking about gaming paradigms is thinking about gameplay beyond genres. It is surely common and useful to regroup different games in a single genre such as real-time strategy, even though the term was not necessarily used when the game was released. However, using a single term to cover a whole group of games does not necessarily mean that we should stop linking games using gaming habits or strategy rather than their formal conventions.

References

Adams, Dan. "The State of the RTS." *IGN*, 7 Apr. 2006. Web. 19 Aug. 2013. <http://go.ign.com/adams-2006>.

70

_____
Kinephanos, ISSN 1916-985X
History of Games International Conference Proceedings, January 2014, www.kinephanos.ca

Alejandrisha, et al. "Protoss vs Zerg. The Guide." *TeamLiquid*, 23 Nov. 2012. Web. 19 Aug. 2013. <http://www.teamliquid.net/forum/viewmessage.php?topic_id=383628>.

Anonymous. "Dune 2." *AUI* 7.8 (1993): 78. *Amiga Magazine Rack*. Web. 19 Aug. 2013. <http://amr.abime.net/review_7591>.

Boehmer, Conner. "Warcraft: Orcs & Humans. FAQ/Walkthrough." *GameFAQs*, 28 Oct. 2009. Web. 19 Aug. 2013. <http://www.gamefaqs.com/pc/565021-warcraft-orcs-and-humans/faqs/54781>.

Byron, Simon. "Dune 2: The Battle for Arrakis." *The One Amiga* 58 (1993): 63-66. *Amiga Magazine Rack*. Web. 19 Aug. 2013. <http://amr.abime.net/review_9178>.

Cusick, Dave. "Dune 2." *Amiga Computing* 64 (1993): 114-15. Web. 19 Aug. 2013. <http://amr.abime.net/review_8302>.

DKennedy. "Dune II FAQ." *GameFAQs*, 21 Jan. 1995. Web. 19 Aug. 2013. <http://www.gamefaqs.com/pc/564691-dune-ii-the-building-of-a-dynasty/faqs/1519>.

Donovan, Tristan. *Replay. The History of Video Games*. East Sussex (R.-U.): Yellow Ant, 2010.

Dulin, Ron. "Warcraft II: Tides of Darkness Review." *Gamespot*, 1 May 1996. Web. 19 Aug. 2013. <http://www.gamespot.com/warcraft-ii-tides-of-darkness/reviews/warcraft-ii-tides-of-darkness-review-2531809/>

Egenfeldt-Nielsen, Simon, Jonas Heide Smith, and Susana Pajares Tosca. *Understanding Video Games: The Essential Introduction*. New York: Routledge, 2008.

Eino. "PC Longplay [086] Dune II: The Building of a Dynasty (Part 2/2)." *YouTube*, 5 May 2010. Web. 19 Aug. 2013. <http://www.youtube.com/watch?v=8FgZ99SbQYk>.

71

_____
Kinephanos, ISSN 1916-985X
History of Games International Conference Proceedings, January 2014, www.kinephanos.ca

Feroyd, Morgan. "Dune II." *Tilt* 111 (1993): 98-102. *Abandonware Magazines*. Web. 19 Aug. 2013. <http://www.abandonware-magazines.org/affiche_mag.php?mag=28&num=321>.

Foucault, Michel. *L'archéologie du savoir*. Paris: Gallimard, 1969.

---. *The Archaeology of Knowledge; and, the Discourse on Language*. New York: Pantheon Books, [1972] 2010.

Gaudreault, André, and Philippe Marion. "Cinéma et généalogie des médias." *Médiamorphoses* 16 (2006): 24-30. Web. 19 Aug. 2013. <http://hdl.handle.net/2042/23485>.

Gill, Tony. "Dune 2." *CU Amiga* (1993): 66-68. *Amiga Magazine Rack*. Web. 19 Aug. 2013. <http://amr.abime.net/review_4106>.

GRomaine. "Dune II. FAQ & Strategy Guide." *GameFAQs*, n.d. Web. 19 Aug. 2013. <http://www.gamefaqs.com/pc/564691-dune-ii-the-building-of-a-dynasty/faqs/1521>.

James, Jeff. "Arrakaholics Anonymous. A Twelve Step Guide to a Happier, Healthier Harkonnen." *Computer Gaming World* 106 (1993): 112-13.

Latil, Didier. "Dune II. La formation d'une dynastie." *Génération 4* 52 (1993): 56-59. *Abandonware Magazines*. Web. 19 Aug. 2013. <http://www.abandonware-magazines.org/affiche_mag.php?mag=27&num=439>.

Lowood, Henry. "Playing History with Games: Steps Towards Historical Archives of Computer Gaming." *Annual Meeting of the American Institute for Conservation of Historic and Artistic Works*. Ed. Electronic Medias Group. 2004. Web. 19 Aug. 2013. <http://aic.stanford.edu/sg/emg/library/pdf/lowood/Lowood-EMG2004.pdf>.

Murray, Harold J. R. *A History of Chess*. Oxford: Oxford University Press, 2002.

Nuttall, Andy. "Dune 2: The Battle for Arrakis." *Amiga Format* 50 (1993): 56-57. *Amiga Magazine Rack*. Web. 19 Aug. 2013. <http://amr.abime.net/review_2382>.

Osborne, Ian. "Dune 2." *Amiga Force* 10 (1993): 16. *Amiga Magazine Rack*. Web. 19 Aug. 2013. <http://amr.abime.net/review_8589>.

Phantom, et al. "The History of Real Time Strategy. A Gamereplays.Org Special Feature." *GameReplays.org*, 7 Aug. 2008. Web. 19 Aug. 2013. <http://downloads.gamereplays.org/history_of_rts/The_History_of_Real_Time_Strategy.pdf>.

Rand, Paul, and Steve Keen. "Dune 2." *Computer + Video Games* 142 (1993): 74-75. *Amiga Magazine Rack*. Web. 19 Aug. 2013. <http://amr.abime.net/review_41230>.

Roundell, Paul. "Dune 2: The Battle for Arrakis." *Amiga Action* 47 (1993): 42-43. *Amiga Magazine Rack*. Web. 19 Aug. 2013. <http://amr.abime.net/review_25578>.

Smith, Andy. "Dune 2." *Amiga Format* 104 (1997): 38. *Amiga Magazine Rack*. Web. 19 Aug. 2013. <http://amr.abime.net/review_3668>.

Winstanley, Mark. "Dune 2: The Battle for Arrakis." *Amiga Power* 28 (1993): 44-45. *Amiga Magazine Rack*. Web. 19 Aug. 2013. <http://amr.abime.net/review_1334>.