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10 Playing the Investiture Contest: Modding as Historical Debate in the Undergraduate and Postgraduate Classroom

Abstract: This chapter addresses the practical application of user modification as a pedagogical method within an undergraduate module and a taught postgraduate module at the University of Winchester. Through a practical example it demonstrates that tabletop games may provide an effective medium for students to explore historical arguments, to interrogate these arguments, and ultimately to create their own counterarguments and debate through the alteration of the game. In doing so, this chapter engages with a diverse range of pedagogical literature and highlights the potential and pitfalls of the approach. In sum, the chapter makes a case for the use of games as educational tools at the highest levels of history study.

Introduction

In principle, the student led modification of history games has substantial learning and teaching potential. Whether by design or coincidence, the mechanics of any historical game inherently represent the expression of historical models and arguments. These models are by necessity abstract and truncated,[1] but must also be holistic and internally consistent in order for the game to function.[2] They represent a means of historical interaction which is fundamentally different from traditional literary approaches, but which may nevertheless be intellectually and

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[1] Jeremiah McCall, "Historical Simulations as Problem Spaces: Criticism and Classroom Use," *Journal of Digital Humanities* 1, no. 2 (2012): 43–44, http://journalofdigitalhumanities.org/1-2/historical-simulations-as-problem-spaces-by-jeremiah-mccall/; Adam Chapman, "Is Sid Meier's Civilization History?," *Rethinking History* 17, no. 3 (September 2013): 322–25, https://doi.org/10.1080/13642529.2013.774719; Robert Houghton, "World, Structure and Play: A Framework for Games as Historical Research Outputs, Tools, and Processes," *Práticas Da História* 7 (2018): 37–38.

[2] Andrew B. R. Elliott, "Simulations and Simulacra: History in Video Games," *Práticas Da História* 5 (2017): 29–31; Houghton, "World, Structure and Play," 19.

academically rigorous.[3] As playing a game requires interaction with, if not mastery of, its mechanics,[4] playing a historical game demands interaction with its rules and by extension with the arguments which these rules represent.[5] Through critical play and engagement with the relevant primary and secondary sources, the player-historian may recognize these arguments,[6] identify their position within the historiographical tradition, and consider their shortcomings: effectively interrogating these arguments as they would a monograph or academic article.[7] Players may also identify potentially unexpected emergent arguments through unforeseen interaction between mechanics. Ultimately, by changing the rules of a historical game through user modification, the player may create nuances and counterarguments to the position expressed through the original game.[8]

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3 Adam Chapman, "Affording History: Civilization and the Ecological Approach," in *Playing with the Past: Digital Games and the Simulation of History*, ed. Matthew Kapell and Andrew B. R. Elliott (New York: Bloomsbury Academic, 2013), 324–26; Elliott, "Simulations and Simulacra," 20–21; Houghton, "World, Structure and Play," 17.

4 Jesper Juul, *Half-Real: Video Games between Real Rules and Fictional Worlds* (Cambridge, Mass: MIT Press, 2005), 95–97; Ian Bogost, "The Rhetoric of Video Games," in *The Ecology of Games: Connecting Youth, Games, and Learning*, ed. Katie Salen Tekinbaş, The John D. and Catherine T. Macarthur Foundation Series on Digital Media and Learning (Cambridge, Mass: MIT Press, 2008), 117–40; Ian Bogost, *Persuasive Games: The Expressive Power of Videogames* (Cambridge, Mass.: MIT Press, 2010).

5 Rolfe Daus Peterson, Andrew Justin Miller, and Sean Joseph Fedorko, "The Same River Twice: Exploring Historical Representation and the Value of Simulation in the Total War, Civilization and Patrician Franchises," in *Playing with the Past: Digital Games and the Simulation of History*, ed. Matthew Kapell and Andrew B. R. Elliott (New York: Bloomsbury Academic, 2013), esp. p. 38; Chapman, "Affording History," 61–73; Dawn Spring, "Gaming History: Computer and Video Games as Historical Scholarship," *Rethinking History* 19, no. 2 (2015): 215, https://doi.org/10.1080/13642529.2014.973714; Vinicius Marino Carvalho, "Videogames as Tools for Social Science History," *Historian* 79, no. 4 (2017): 812, https://doi.org/10.1111/hisn.12674; Houghton, "World, Structure and Play," 25–27.

6 Gary King, Robert O Keohane, and Sidney Verba, *Designing Social Inquiry: Scientific Inference in Qualitative Research*, 1994, http://www.dawsonera.com/depp/reader/protected/external/AbstractView/S9781400821211; Harry J. Brown, *Videogames and Education* (Armonk, N.Y.: M.E. Sharpe, 2008), 118; Juan Francisco Jiménez Alcázar, "The Other Possible Past: Simulation of the Middle Ages in Video Games," *Imago Temporis* 5 (2011): 300–301; Peterson, Miller, and Fedorko, "The Same River Twice," esp. p. 38.

7 Andrew McMichael, "PC Games and the Teaching of History," *The History Teacher* 40, no. 2 (February 2007): 203–4; McCall, "Historical Simulations as Problem Spaces," 21; Houghton, "World, Structure and Play," 27–29.

8 Shawn Graham, "Rolling Your Own: On Modding Commercial Games for Educational Goals," in *Pastplay: Teaching and Learning History with Technology*, ed. Kevin Kee (University of Michigan Press, 2014), 226–27, https://doi.org/10.2307/j.ctv65swr0; Kevin Kee and Shawn Graham, "Teaching History in an Age of Pervasive Computing: The Case for Games in the High

In doing so they may demonstrate the same critical thinking developed through undergraduate or even postgraduate history courses,[9] and potentially equal to that of professional scholars.[10]

This potential is largely untapped. While commercial and bespoke games have been used to great effect as introductions to periods and regions, as discussions of historical arguments through their mechanics as tools for exploring popular history, the student led design and modification of such games has been explored much less frequently. There are a growing number of examples of a user modification approach – such as Kee and Graham's successful deployment of *Civilization IV* as the basis for such an exercise[11] – but these remain very much in the minority.

There are several reasons for the limited adoption of computer games in this manner. Game development is time consuming and fully engaging students in the process can easily occupy more time than is typically available in class.[12] The skills required are not obviously compatible with the common skillset of history students (or instructors) and their development may appear at odds with the more traditional content of history classes or their learning goals.[13] The level of study at which this approach is most valuable is also the level at which the use of games is most likely to be derided or rejected outright. Development and modification of games can also prove expensive and the cost of

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School and Undergraduate Classroom," in *Pastplay: Teaching and Learning History with Technology*, ed. Kevin Kee (University of Michigan Press, 2014), 279, https://doi.org/10.2307/j.ctv65swr0.17; Greg Koebel, "Simulating the Ages of Man: Periodization in Civilization V and Europa Universalis IV," *Loading . . . The Journal of the Canadian Game Studies Association* 10, no. 17 (2017): 72; Houghton, "World, Structure and Play," 27–31.

9 Kee and Graham, "Teaching History in an Age of Pervasive Computing"; A. Martin Wainwright, "Teaching Historical Theory through Video Games," *The History Teacher* 47, no. 4 (2014): 579–612; Stephen Ortega, "Representing the Past: Video Games Challenge to the Historical Narrative," *Syllabus* 4, no. 1 (2015): 1–13.

10 Jeremy Antley, "Going Beyond the Textual in History," *Journal of Digital Humanities* 1, no. 2 (2012), http://journalofdigitalhumanities.org/1-2/going-beyond-the-textual-in-history-by-jeremy-antley/; Carvalho, "Videogames as Tools"; Robert Houghton, "Scholarly History through Digital Games: Pedagogical Practice as Research Method," in *Return to the Interactive Past: The Interplay of Video Games and Histories*, ed. Csilla E. Ariese-Vandemeulebroucke et al. (Sidestone Press, 2021), 137–55.

11 Kee and Graham, "Teaching History in an Age of Pervasive Computing."

12 Jeremiah McCall, "Teaching History With Digital Historical Games: An Introduction to the Field and Best Practices," *Simulation & Gaming* 47, no. 4 (2016): 533, https://doi.org/10.1177/1046878116646693.

13 Carvalho, "Videogames as Tools," 818–89.

resources may make such an approach unviable at many institutions.[14] Perhaps most significantly, computer games almost invariably adopt a "black box" approach to conceal a sizeable portion of their mechanics from the player. This is often a practical necessity, but by withholding a part of the game rules, creators deny players access to an element of the argument presented through the game, thus undermining its utility as a tool for historical analysis and debate.[15] The approach has substantial potential, but is often rejected for its perceived practical constraints.

Board, card, or tabletop games – more simply "physical" or "analogue" games – present a number of advantages over their digital counterparts in this area. In contrast to the "black box" of computer game mechanics, the rules of physical games must be apparent to the players: they must parse these rules in order to play the game.[16] As such, the arguments and logic represented through the mechanics are more accessible and easier to interrogate and modify.[17] Beyond this, physical games require a substantially smaller economic outlay to create and alter than computer games and their modification requires fewer specialist skills.[18] The limitations of the medium can either be easily overcome – access to counters, dice, and other paraphernalia – or have little impact on the use of such a game in the classroom – reproduction costs; modelling complex data.

This chapter demonstrates the practical application of play and modification as historical debate at undergraduate and postgraduate level study. It discusses the development of a bespoke board game titled *The Investiture Contest* and its use within the taught postgraduate module *Church, Society and Conflict in the Medieval West* and the final year undergraduate module *The Middle Ages in Computer Games* at the University of Winchester in the academic year 2019/20. To this end I will:

1) Outline the learning context: the purpose of the game; its place within the two modules; and the core historiographical debates which formed the basis for the game's mechanics.
2) Set out the principles and goals of the design process, highlighting in particular the approaches used to mitigate difficulties with this method.

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14 Timothy Compeau and Robert MacDougall, "Tecumseh Lies Here: Goals and Challenges for a Pervasive History Game in Progress," in *Pastplay: Teaching and Learning History with Technology*, ed. Kevin Kee (University of Michigan Press, 2014), 101–2, https://doi.org/10.2307/j.ctv65swr0.8; Houghton, "World, Structure and Play," 39.
15 Antley, "Going Beyond the Textual."
16 Antley.
17 Houghton, "World, Structure and Play," 40.
18 Houghton, 40.

3) Present an overview of the game and its interaction with the pertinent history and historiography.
4) Detail the integration of the game within the two modules and consider its learning utility in practice.

Ultimately I will argue that there is substantial educational potential for this approach and suggest possible evolutions of its use in light of this case study.

Learning Context

The game was designed to support two distinct modules. *Church, Society and Conflict in the Medieval West* makes use of traditional teaching and research methods (primary source analysis, historiographical debate, and student led research) to address the changing interaction between the Church and secular rulers in the central Middle Ages. It places a particular emphasis on the causes, events, and consequences of the Investiture Contest c.1073–1122. *The Middle Ages in Computer Games* considers the ways in which games represent the medieval period through the worlds and mechanics their developers create and the narratives these elements may create through player interaction. The course engages with the growing body of literature addressing history in this medium and employs computer games and the communities around them as primary sources.

Within *The Middle Ages in Computer Games*, the game was used early in the course as part of the front loading of theory before the consideration of a series of weekly themes (such as violence, gender and sexuality, and the "Dark Ages") over the remaining nine weeks of the course. The game served as a demonstration of the use of game mechanics as historical argument and the capacity through which modification of these mechanics facilitates an adjustment of the argument. This understanding forms a cornerstone for the analysis of the various themes addressed in the remainder of the course and hence needed to be deployed early in the module. The subject matter of the game was largely coincidental for the purposes of this module: the exercise could easily be run with a game focusing on any period or issue, providing the game allowed the easy exploration and modification of mechanics clearly connected to historical arguments.

The game was used towards the end of the module *Church, Society and Conflict in the Medieval West* after students had engaged with the materials pertaining to the Investiture Contest. It was used as an exercise whereby the students could explore and challenge differing historical arguments through a different

medium, hence augmenting their understanding of the previously covered materials and potentially developing new avenues for their research. This module required a game focused on the conflict, although this still allowed for a substantial variety of themes, regions, and approaches. As with *The Middle Ages in Computer Games* this module required a game which allowed exploration and modification of rules connected clearly to historical arguments.

The Investiture Contest was traditionally presented as a bilateral conflict, primarily over the control of Investiture (the appointment of bishops and other clergymen within the Empire), between a reforming Pope and conservative Emperor.[19] However, this narrative has been challenged extensively in recent decades.[20] The cause of this conflict has been disputed and factors other than Investiture have been highlighted.[21] Likewise, the supposed monopoly of the papacy over reform has been challenged with several authors emphasizing the role of the secular magnates,[22] lower orders of society,[23] local clergy,[24] and the imperial faction.[25] The notional supporters of both acted with their own interests in mind: Matilda of Canossa supported Gregory VII wholeheartedly, but her relationship with Urban II was lukewarm, and by the time of Paschal II she was no longer willing

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19 Louis Marie Olivier Duchesne, ed., *Liber Pontificalis. Texte, introduction et commentaire*, vol. 2 (Paris, 1892); Augustin Fliche, *La Réforme grégorienne: Tome I La formation des idées grégoriennes*, vol. 1, 3 vols., Spicilegium Sacrum Lovaniense (Louvain, 1926), 6; Gerd Tellenbach, *Church, State, and Christian Society at the Time of the Investiture Contest*, trans. R. Bennet (Oxford: Oxford University Press, 1966), 27.

20 For an excellent overview see: Maureen C. Miller, "The Crisis in the Investiture Crisis Narrative," *History Compass* 7, no. 6 (2009): 1570–80, https://doi.org/10.1111/j.1478-0542.2009.00645.x.

21 Maureen C. Miller, *Power and the Holy in the Age of the Investiture Conflict: A Brief History with Documents*, The Bedford Series in History and Culture (Boston: Bedford St. Martins, 2005).

22 John Howe, "The Nobility's Reform of the Medieval Church," *American Historical Review* 93 (April 1988): 317–39; Dorothy F. Glass, *The Sculpture of Reform in North Italy, ca. 1095–1130: History and Patronage of Romanesque Façades* (Farnham: Ashgate, 2010).

23 Amy G. Remensnyder, "Pollution, Purity, and Peace: An Aspect of Social Reform between the Late Tenth Century and 1076," in *The Peace of God: Social Violence and Religious Response in France around the Year 1000*, ed. Thomas Head and Richard Allen Landes (Ithaca, N.Y: Cornell University Press, 1992).

24 Hubertus Sibert, "Kommunikation, Autorität, Recht, Lebensordnung. Das Papsttum und die monastisch-kanonikale Reformbewegung (1046–1124)," in *Vom Umbruch zur Erneuerung?: das 11. und beginnende 12. Jahrhundert: Positionen der Forschung*, ed. Jörg Jarnut and Matthias Wemhoff, MittelalterStudien 13 (München: Fink, 2006), 11–29.

25 Regina Pörtner, "Reichspolitik, Reform und bischöfliche Autonomie: Der Investiturstreit im Spiegel der Gesta Treverorum," *Mediaevistik* 22 (2009): 83–115.

to risk her position on behalf of the imprisoned pope.[26] Welf of Bavaria aligned himself with the interests of the papacy and Matilda against Henry IV, but only as long as this suited his political purposes in Germany and his dynastic territorial ambitions in Italy. The antipope Guibert of Ravenna was traditionally portrayed as the puppet of Henry IV, but was driven by his own personal ideology and political goals.[27] Across Italy bishops, secular magnates, and cities took advantage of the broader conflict to settle their own scores, aligning themselves with whichever faction was convenient and often changing allegiance as the conflict progressed.[28]

A core element of teaching the Investiture Contest is often disabusing students of the simple accounts dominant in generalist literature in favor of more nuanced discussion of the causes and developments of the period. The conflict needs to be understood in the context of broader issues: Church hierarchy and autonomy of Lombard bishops; history of German intervention in Italy; Imperial legacy of Rome; Papal legacy of Rome; overlap of these two legacies; the rise of the Canossan dynasty and issue of Matilda's lands; and the emergence of the Italian city communes. From this foundation students may be introduced to the various historiographical traditions ranging from the older divergence between Italian and German schools and between Catholic and Protestant authors through to more modern perspectives and approaches.

The complex and contested historiography surrounding the Investiture Contest makes it ripe for teaching through games. The production of a game whose mechanics are based on any one of these arguments or historical models provides the opportunity for students to engage with and interrogate these arguments through play. Discrepancies and imbalances within the game rules may be identified through experience during play, allowing students to highlight the shortcomings of the arguments on which these rules are based. Students may then adjust and nuance the game's mechanics to more closely match their understanding of the period and events on the basis of their research and

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26 Glauco Maria Cantarella, *Pasquale II e il suo tempo*, Nuovo Medioevo 54 (Napoli: Liguori, 1997).

27 Orazio Francabandera, "La Chiesa Ravennate sotto l'arcivescovo Guiberto," in *Le carte ravennati del secolo undicesimo*, ed. Ruggero Benericetti, Studi della Biblioteca Card. Gaetano Cicognani, nuova ser. 13 (Faenza: Biblioteca Cicognani, 2003), vii–xii.

28 I. S Robinson, "The Friendship Network of Gregory VII," *History* 63 (1978): 1–22; I. S Robinson, "The Friendship Circle of Bernold of Constance and the Dissemination of Gregorian Ideas in Late Eleventh-Century Germany," in *Friendship in Medieval Europe*, ed. Julian Haseldine (Stroud: Sutton, 1999), 185–98.

engagement with the historiography: in doing so they effectively engage in academic historical debate through the medium of the game.

Design Principles

Ease of modification was the central design principle for this game. The core pedagogical aim of the exercise was to allow students to engage in historical debate through the medium of game modification and to do so within the time constraints of a single three hour class. To this end, the game was designed with an emphasis on several core characteristics: simplicity of mechanics; speed of play; familiarity of materials and mechanics; and asymmetry of objectives. Conversely, random elements were avoided and playability was not prioritized within the design process.

The game mechanics were designed to be simple and clear. Students must be able to identify the argument presented through the rules of the game and so these rules must present that argument clearly and succinctly.[29] This simplicity also facilitates the modification of the game as students should be able to estimate the impact of any changes they make with relative ease. Further, simple rules for the initial game allows greater freedom for modification: the goal is to represent a skeleton argument which the students may alter to create deeper nuance.

Facilitating swift play was a further central concern for this project. Although there is great academic and pedagogical merit in devoting an entire module to the development and play of historical games, this approach is often impossible to implement within curricula due to time constraints, pedagogical concerns, or departmental and Institutional policy.[30] This particular game was to be used within sessions of no longer than three hours and thus demanded a play time of around half an hour per session to allow discussion and modification. A focus on simple mechanics supported this objective to a substantial degree, but a more concrete end point – a limited turn track for example –formed an arbitrary but necessary conclusion for each cycle of play.

Commonly familiar gaming materials and mechanics were employed to facilitate the accessibility of the game and allow faster play. While it is important

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29 McCall, "Teaching History With Digital Historical Games," 533; Jeremiah McCall, "Video Games as Participatory Public History," in *A Companion to Public History*, ed. D. M. Dean, 1 edition (Hoboken, NJ: Wiley, 2018), 407; Houghton, "World, Structure and Play," 35–36.
30 McCall, "Teaching History With Digital Historical Games," 533.

to avoid generalizations about students' prior gaming experiences, most students can reasonably be assumed to be familiar with pawns, game boards, playing cards, standard dice, and various other paraphernalia – if not from childhood or more recent play, then through popular culture. Most students will also have experience with associated basic mechanics such as counter movement, placement of control markers, or drawing and discarding cards. Building a game based on these familiar components and rules reduces the time necessary for students to interpret the game, allows more intuitive interaction with the arguments represented by these rules, and lowers the potential for frustration amongst students. While other less conventional components or mechanics – such as worker placement, shared resource pools, or deck building – can be very effective methods of representing historical arguments, these materials and mechanics were avoided as they were likely to be unfamiliar to a proportion of students and so lengthen play time and complicate interaction with the arguments represented by the game's rules.

Clear links between the game's components and rules and the situation around the Investiture contest were employed to support student engagement and help to clarify the historical arguments presented through the rules.[31] Maps and names of locations and characters can underline the connection between actions taken within the game and the historical content of the remainder of the module. In a similar fashion, explicit connection between game mechanics and historical mechanisms they are designed to emulate can ground the game in any pertinent historiographical traditions. In concert, clearly embedding the components and rules of the game in its historical theme facilitates the creation of a historical narrative through a collaboration between the players and the developer. In doing so, this design approach supports the interrogation of the narrative and the identification of any emergent arguments.

The mechanics were designed with the core historical arguments in mind – thus asymmetric objectives were provided for the various player characters. Objectives can substantially alter players' behavior and hence providing different objectives for each player allows the discussion of the interaction of these different personalities and goals.[32] For this particular game, the use of asymmetric and compatible objectives was particularly important as one of the core arguments

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31 McCall, 534–35; Carvalho, "Videogames as Tools," 811–12.

32 Robert Houghton, "If You're Going to Be the King, You'd Better Damn Well Act like the King: Setting Objectives to Encourage Realistic Play in Grand Strategy Computer Games," in *The Middle Ages in Modern Culture: History and Authenticity in Contemporary Medievalism*, ed. Karl Alvestad and Robert Houghton (IBTauris, 2021), 186–210.

set out by the game was that the Investiture Contest was a multifaceted conflict between numerous actors, each of which possessed their own goals.

Conversely, random elements were almost entirely avoided within the game. Randomness can serve an important element within simulations and learning games as a representation of complexity and uncertainty.[33] However, these advantages are undermined in this case by two factors. Firstly, randomness can easily extend play time as players are obliged to calculate the outcomes of unforeseen variables and determine their impact on the game. Secondly, and more significantly, randomness can obscure the mechanics of a game and hence the arguments they represent thus undermining the purpose of the exercise.

Likewise, playability was not a priority. While the entertainment factor of a game (or any form of media) can certainly generate interest in its historical subject matter, this was not the purpose of this game: these were optional modules at higher levels of study and there was little prospect of further increasing students' interest in the subject matter and little pedagogical benefit in doing so. Further, an emphasis on "fun" can undermine the educational potential of a game. As McCall has highlighted, students are often wary of the educational value of games and suspicious of entertainment as education in general.[34] Indeed, one of the most common failings of edutainment games is an overemphasis on entertainment which falls flat.[35] While almost all students reported enjoyment of the exercise, this was coincidental to its purpose.

The Investiture Contest Game

The purpose of the game was to demonstrate two opposing accounts of the Investiture Contest – namely the traditional presentation of a binary struggle between pope and emperor and a more nuanced explanation of shifting and conflicting alliances between key figures – before asking students to modify the game rules in order to better represent their understanding of the period.

The game focused on political influence in northern Italy in the later eleventh century. The full rules are attached as an Appendix after the bibliography,

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33 Kevin Schut, "Strategic Simulations and Our Past: The Bias of Computer Games in the Presentation of History," *Games and Culture* 2, no. 3 (2007): 226, https://doi.org/10.1177/1555412007306202.

34 McCall, "Teaching History With Digital Historical Games," 532–33.

35 Richard Van Eck, "Digital Game Based Learning: It's Not Just the Digital Native Who Are Rest-Less," *Educause Review* 41 (2006): 16–30.

but in short: players took the role of one of six key figures within the conflict (Emperor Henry IV, Pope Urban II, Antipope Guibert of Ravenna, Countess Matilda of Canossa, Archbishop Arnulf of Milan, and Duke Welf of Bavaria) represented by a colored pawn; they took it in turns to move around the map, placing counters representing their influence in a province, and removing the influence counters placed by their opponents; play ended after six rounds and victory was decided. The game was designed to function with fewer than six players – characters could be omitted or a player could control more than one character – and with more than six players – players could take joint control of a character.

Two divergent arguments about the nature of the Investiture Contest were expressed through the victory conditions of the "basic" and "advanced" versions of the game. The Basic Game set out the traditional presentation of the struggle as a binary conflict between the German Emperor and the Pope. Players were divided into two teams representing Papal and Imperial factions and tasked with exerting greater influence over more of the map than their rivals.
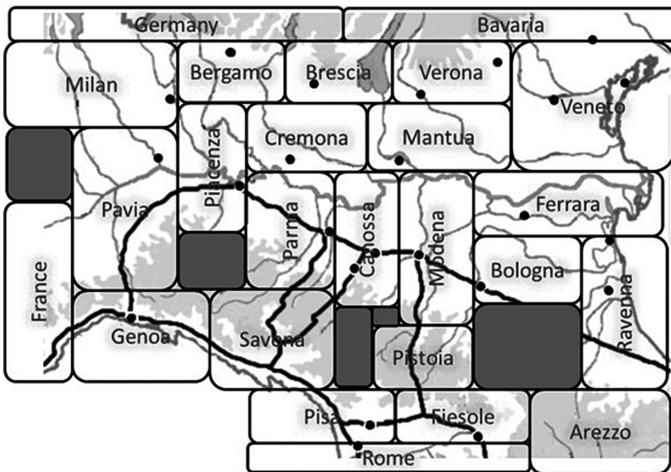

Figure 10.1: The Investiture Contest game map.

The Advanced Game presented a more nuanced argument of shifting alliances and goals. Each player was given a different series of four objectives designed to coincide with the recorded behavior and apparent aims of their characters. For example, the Pope was tasked with gaining control over key provinces central to their reform strategy including Rome and the archepiscopal cities of Milan and Ravenna, while Matilda of Canossa was focussed on retaining control of her territories. These objectives were sequential (earlier objectives had to

be completed for later objectives to be counted) giving a sense of the priorities for each of these figures. The majority of these objectives were compatible with the goals of other players, but completing these objectives required negotiation and trust between the players and each player's final objective was incompatible with the final objective of at least one other player, allowing the exploration of the complex interactions between these figures.

Beyond the victory conditions, the mechanics of the Basic and Advanced games were identical and represented several other arguments about the politics of the medieval period. For example, the emphasis on movement and the restriction of most actions to the immediate vicinity of the player's pawn is a ludic depiction of the predominance of itinerant rulership within the medieval period. The probable coexistence of influence counters from multiple players within a single province represented the argument that nuanced and overlapping relationship networks existed across the region and that absolute control over an area was an anachronism.

The game was designed around the principles outlined above. The mechanics were kept simple and succinct – the rules of the basic game fit on a side of A4 while a second side of A4 was required to list the objectives for the advanced game. The length of the game was restricted through the round limit. Familiar materials – pawns, counters, and game board – were employed alongside familiar mechanics – turn taking, movement, area control. Mechanics and play were clearly tied to the period and issues through the rulebook, map, and characters. The game contained no random elements beyond turn order being determined by position around the table. Although the Basic Game was relatively balanced (the only differences between the competing sides were starting locations), this was coincidental rather than a deliberate product of the design while the objectives of the Advanced Game were fundamentally imbalanced – an issue raised during the class as outlined below. The game was relatively abstract: although maps and characters were based on reality, details were kept vague and mechanics were kept simple.

Play and Modification

The classroom deployment of the game was a qualified success, although the sessions highlighted a number of considerations for the future development of this approach. Feedback was broadly positive and students typically reported that the game helped them to develop their understanding of the arguments around the conflict and allowed them to think about new ways of exploring

historical issues. It must be emphasized that this feedback was solicited from a captive audience and small sample size and should in no way be seen as an endorsement for the commercial viability of the game. Nevertheless, these responses underline the pedagogical utility of the approach. The time taken for each playthrough was roughly 40–45 minutes and this remained the case after multiple playthroughs: it seems that any acceleration of play through familiarity with the rules was countered by more lengthy strategizing and consideration of the implications of the mechanics. Throughout the sessions students engaged with a number of learning activities: interrogation of the game mechanics as historical arguments; identification of emergent arguments; self-driven research; and roleplay as their assigned characters. Beyond this, the behavior of several students highlighted new elements for consideration through this approach by engaging in suboptimal play, objective driven play, and metagame betrayal. Students proposed and developed a range of mods for the game which can be broadly categorized as addressing four key issues: balance, realism, randomness, and playability.

Students were able to identify the arguments set out through the game's mechanics and ultimately to interrogate these mechanics and arguments. Both classes followed the opposing arguments debating the binary or multifaceted nature of the conflict presented by the basic and advanced versions of the game. Interrogation of these arguments was a more difficult prospect, but students generally engaged well with this part of the exercise. Students within the postgraduate class identified the fact that each character was mechanically identical and argued that several of the characters – most notably the emperor Henry IV – were underpowered in comparison to their understanding of the conflict. Students also criticized the objectives of the various characters. Broadly speaking students on the postgraduate course focused their criticism on adherence to historical issues and questioning the logic behind the selection and order of these objectives based on their research into the behavior and goals of these figures. Students on the undergraduate course tended instead to note mechanical discrepancies and imbalances focusing on the translation of arguments into rules rather than the veracity of the arguments themselves. More generally, both groups criticized the abstractions and absences within the game. The absence of key powers including the Sicilian Normans, the Byzantine Empire, and the Italian city communes (especially Venice) were noted and critically discussed by players.

In each class students identified a number of arguments which emerged unexpectedly from the ruleset. Most notably, Canossa was observed as a particularly important province within several playthroughs of the game in both classes. This factor emerged in part because four of the players had an interest in the province to complete their objectives, but also because of the central position of

the province and the intervention of players who did not require control of Canossa for their goals, but saw the strategic benefit of challenging other players' control of the area. This was an unintended outcome of the game, but meshes well with dominant historical understandings: Canossa is almost universally accepted as a strategically vital site during the Investiture contest, it was the location (in 1091) of one of the pivotal battles of the conflict, and control over Matilda's lands remained an issue of substantial conflict for decades after her death. Although they were unable to complete it in practice, one group within the undergraduate class observed the possibility of a viable alliance against the Pope amongst all other players which would allow them each to achieve at least their third objective. On this basis, they concluded that if the arguments represented through the rules of the game were accepted then it followed that the ambitions of the Pope were the main obstacle to the resolution of the Investiture Contest.

In an unforeseen and unprompted development, students within the undergraduate class were driven to engage in exploratory research around the characters and events of the Investiture Contest as a means to drive their strategy and ultimately their mods. This research was fairly rudimentary, focusing on Wikipedia and other easily accessible online tools, but represents an important opportunity for the use of games such as this in an educational setting. The impact of this approach here was broadly positive, although a couple of players took their research as a playbook to recreate historical events. This is certainly an interesting approach to the game – and should perhaps have been expected – but was not ideal here as the goal of the exercise was to investigate and develop historical arguments rather than to recreate historical events.

Students in both the postgraduate and undergraduate classes – again without prompting – took a roleplaying approach to their characters and the game. The most consistent example of this is that in both groups players representing Matilda and Welf generally worked together throughout the game. This was in part because of the alignment of their early objectives, but many students reported that they were honoring the marriage alliance between the two figures. In one case, a player in control of Matilda maintained close co-operation with Welf until the final turn of the game, when they suddenly turned against their erstwhile ally, seizing control of two key provinces and completing the last of their objectives. In response to the Welf player's accusations of betrayal and infidelity, the Matilda player countered that this was perfectly fitting with the tumultuous relationship between the two and the irreconcilable breakdown of the marriage. Other examples of roleplay include: the player representing the archbishop of Milan swearing undying allegiance to the emperor as long as the imperial player refrained from interfering within the city and its environs;

vocal, lively, and largely authentic rhetoric being hurled between the players controlling the Pope and Antipope; and an urgent and impassioned plea from the Antipope to the Emperor for help against an alliance of the Pope, Matilda, and Welf. This was not a designed part of the game, but was somewhat antici- pated and welcome as a component of the learning experience. In adopting this roleplay driven approach, players moved away from the sometimes cold and logical reasoning applied by historians to the political actors of this period and collectively created an explanation for the conflict which was much more per- sonal and emotional. In doing so, they moved well beyond the rules of the game and created their own argument.

The personal aspects students brought to the game extended beyond role- playing to incorporate other metagame elements: players brought relationships and experience from outside the game to influence their behavior within the game. At its most basic level this meant that players who were friends tended to act in concert within the game – although there were several exceptions to this trend where close friends engaged in deep and embittered rivalries. Within the classroom, relationships between players often carried over from one game to the next: mutual support in one game tended to form the basis for good rela- tions in the next; dramatic success and perceived competence by one player in the first game led to a wide-ranging alliance against that player in the second; and betrayal of trust was remembered not only by the victim but by the rest of the table in all future games. Again, this was not a designed element of the game, but was anticipated to some extent. These metagame influences moved the focus of the constructed arguments away from the rules and towards play- ers’ personal interactions creating a new exploration of the conflict in an unin- tended, but still valid and useful, manner. Through these play approaches, players created alternative arguments for the behavior of their characters and new explanations for events. In most cases, these approaches were deployed acritically but reflection allowed students to consider the implications of their actions and motivations on the account they created through the game and consider parallels within the period.

On several occasions this focus on roleplay or other metagame considera- tions led to suboptimal strategic decisions. With the exception of the example of Matildine betrayal highlighted above, the alliances between Matilda and Welf in- evitably led both their players to take actions which were counterproductive in pursuing their victory objectives even while they conformed to their roleplay premise. Friendships and grudges likewise led games to progress in unexpected ways inspiring difficult alliances or self-destructive and all-consuming conflicts – which almost inevitably undermined the ability of the involved players to com- plete their goals. This behavior represents a rejection of the arguments presented

through the game's objectives: players undertook actions which did not fit with the historical narrative envisaged in the game's design. Through these acts of counterplay they – deliberately or coincidentally – challenged the games objectives and hence the historical arguments it represented.

After completing the first playthroughs, students proposed a range of modifications to the game. These most frequently included scenario variations which kept the rules of the game almost entirely intact but introduced new elements. Students suggested adjustments to the board including the introduction of more provinces to create a more detailed representation of the region, expansion of the map to incorporate new areas in Central Italy and the rest of the Empire, and rearrangement of existing provinces and impassable areas. Other groups suggested the introduction of new playable characters such as the Doge of Venice, Emperor of Byzantium, or Duke of Apulia and Calabria – figures with an interest in the area and the events of the Investiture Contest. These adjustments represent a relatively simple form of user modification, but nonetheless substantially changed the argument set out through the game's rules. Changing the scope and composition of the board changed the strategic importance of key areas of the map and altered interactions between players, creating new strategies, alliances, and conflicts. In doing so, students created new arguments about the relative importance of the regions of the conflict and set out new explanations for the behavior of key figures. Likewise, the introduction of new characters emphasized some shortcomings of the original game: namely its failure to place the conflict in a broader context. Through this adjustment students created a more nuanced and holistic approach to the issue.

Various groups also proposed adjustments to the board and characters alongside concrete (and sometimes elaborate) changes to the rules. Students within the postgraduate class suggested the inclusion of geographic features such as forests, hills, rivers, and major roads which would obstruct or speed movement around the map. They likewise introduced "home regions" which were easier for particular characters to influence. One group within the undergraduate class modified the abilities of each character. For example, following their identification of the Emperor as underpowered (noted above) this group substantially increased this character's ability to exert influence within his immediate vicinity. Conversely, the Pope was granted improved powers to exert influence at a distance. This somewhat more advanced approach allowed students to create more detailed counters to the arguments posed through the rules of the game. By adapting the map and its associated rules, students created a more complex representation of the practicalities of itinerant rulership and created nuance around the regional loyalties to key figures during the conflict. By changing the rules through which different players exerted influence,

students highlighted different approaches to power between the overwhelming force of the Imperial court and host contrasted with the softer but more flexible influence of the Papal curia and Church networks.

Students frequently suggested mods which incorporated random elements. A couple of groups proposed semi-random outcomes for attempts to exert influence making use of several variations of dice driven mechanics to introduce a level of uncertainty around the ability of a player's character to act in a given turn. These approaches ranged from fairly simple – the number of influence counters a player could place in their turn was determined by rolling a die – to rather complicated – players had to roll above a certain number to place an influence counter, with the chance of success influenced by several factors including the influence of other characters, distance from the player's character, and the presence of other characters in the targeted province. Other groups introduced random events chosen by rolling dice and consulting tables or by drawing cards. These events included bad weather, external intervention, and urban uprisings and their impact was translated into the game's mechanics to disrupt or aid the plans of the players. Although random elements such as these had been consciously avoided within the design of the core game and these elements substantially extended play time, these modifications represent important reconfigurations of the arguments posed through the game's rules. Introducing random elements allowed the simulation of events beyond the control of the players, creating a broader, if more abstract, exploration of the Investiture Contest. Moreover, the introduction of these elements changed the behavior of the players. Disruption – or even the threat of disruption – of plans led to a more cautious approach from several players which in turn altered the explanation of the actions taken by the key figures in the conflict.

Conclusion

The deployment of a ludic model of historical debate in practice was broadly successful. Students engaged with key materials and game mechanics, parsed these mechanics for their historical arguments, interrogated these arguments, and ultimately created arguments of their own through user modification. Nevertheless, a handful of issues emerged: the game took longer to play than hoped; there was occasional disconnection between the theory put forth by students and the mechanics they created to represent this theory; and roleplay and metagame activity overrode the arguments suggested through the game's mechanics.

Streamlining play is the most immediate practical concern going forward, but is an issue with several manageable solutions. Students typically spent

around 80 to 90 minutes playing through the Basic Game and Advanced Game before beginning their modification of the game which left relatively little time to fully engage in the core activity of the class and hence undermined the impact of the approach. Marco Tibaldini, who supported the undergraduate session, has suggested the removal of the Basic Game from the start of the exercise, noting that students within the undergraduate class were able to grasp the game rules and their implications swiftly and gained no significant benefit from the additional first playthrough. This idea has a great deal of merit as it has the potential to substantially reduce the lead in time before students engage in the modification activity, and this approach will be developed within future iterations of the game. Other simple short term solutions include reducing the number of players or the number of available turns, but in the longer term the mechanics and scope of the game will need to be addressed in order to speed play and provide more time for students to parse and discuss the game and to create mods.

Improving students' ability to translate their historical arguments into game mechanics is a deeper challenge. While students in the postgraduate class composed complex counter arguments on the basis of their knowledge of the various historiographical traditions surrounding the Investiture Contest, they sometimes struggled to conceive these arguments in the form of rules. Conversely, while the undergraduate class were more confident in their creation and adjustment of rules and more fluent in their conversion of arguments into these rules, their arguments tended to be more limited and disjointed from the body of literature. These outcomes were anticipated and in no way represent failures on the part of the students: instead they are consequences of the distinct nature of the two modules. These outcomes underline the importance of integrating the exercise into the broader syllabus and highlight the need to ensure participants are sufficiently familiar with the source material and literature but also with the ludic approach. A potential resolution for this issue is to devote more time to supporting exercises – although this is of course limited by the class schedule and other requirements within the module. Alternatively, and more practically, the modification element of the exercise could be more closely guided. Students could be provided with a specific variation of the game's argument to represent through modification. This would be based on elements of current historical debate, for example: "The city communes played a central role in the Investiture Contest" or "The enmity between Matilda of Canossa and Henry IV was insurmountable." This could be accompanied by a short summary of basic modifications and their implications for the arguments presented by the game. A tighter focus like this would limit students' ability to express their own arguments, but would provide direction within an unfamiliar task.

The influence of metagame elements on player behavior was underestimated in the preparation of the exercise. Roleplay, external knowledge, personal friendships and rivalries, and counterplay created new elements to the arguments presented through the game which, as outlined above, created some interesting and constructive insights for the players. However, the substantial impact of these elements also underlines the limitations of the game rules to dictate player behavior and hence the arguments represented through the game. This is an issue which needs to be considered carefully, but my instinct is that the solution is not to restrict player agency but rather to embrace it. Students should be encouraged to engage closely with their characters and to roleplay not only their strategic goals, but also their personal relationships and personalities insofar as these can be discerned. To this end, it may be advisable to lessen the focus on specific objectives and victory conditions and instead have the players analyze and explain whether their character has succeeded or failed at the end of the game.

The exercise could also be beneficially extended by allowing students to interrogate the arguments set out in each other's modifications. This would, as Marco Tibaldini has suggested, take the form of students playtesting the modded games created by other groups. They would then interrogate the arguments represented by the new ruleset and consider the effectiveness of the altered mechanics in conveying the new argument. There are substantial potential learning benefits to this approach as it allows the exchange of ideas between groups and facilitates broader debate. Further, this method will allow students to experience the impact of player agency on their constructed mechanics, providing them with greater insight into the corporate authorship of the histories presented through games.

A final issue concerns the practicalities of delivering this exercise during the global pandemic. Face to face teaching has been impossible for much of the past academic year and the close proximity required to play the game remains unfeasible at the time of writing. While it is far from ideal, a workable solution here is to move the exercise online and present the game through a browser based tabletop simulator. Various free to use platforms exist which could facilitate this such as *Board Game Arena*, *Roll20*, or *Vassal*. New issues around communication and accessibility will certainly emerge with this shift of medium, but the digital approach mitigates the problems posed by the pandemic and creates the potential to use game modification based learning at a distance. There are other benefits to this approach including most notably a greater ability to introduce new components without the restraints of physical creation or acquisition.

The qualified success of the Investiture Contest game as a learning tool suggests broader applications for the approach. The system could easily be adapted to consider other historical periods or regions when embedded within modules addressing relevant eras and areas. Consideration of other subfields within history may require more thought: games for the debate of warfare are perhaps the most obvious area for further exploration as a massive corpus of commercial games exist which may provide exemplar mechanics, but economic structures can easily provide the basis for the mechanical systems within a game, and role-play elements provide huge potential for the exploration of social interactions and connected issues. Provided the rules fit the arguments, it is entirely possible to deploy a game for the exploration for almost any historical debate. This approach must be used with care, particularly around sensitive historical issues, but it represents a great deal of learning potential.

The development and deployment of the Investiture Contest game has provided a practical demonstration of the utility of user modification as a form of historical debate. Students successfully parsed, interrogated, and modified the arguments represented through the game's rules and in doing so displayed a substantial range of advanced analytical skills. While the format was very far removed from more traditional academic and learning approaches and the history was produced and communicated in a very different manner, this nevertheless represents a valid and constructive approach. There are certainly several issues to be considered in the future, but these do not appear to be insurmountable, even with limited availability of time in classes. The approach must be embedded within the content of the module and students must be able to acquire relevant knowledge of the period, events, and historiography under discussion and also develop an understanding of how games can communicate history: they must be familiar with both the content and the method. However, these parameters apply to any teaching approach. Ultimately all that is required is a greater flexibility in what we see as valid approaches to history and a fundamental change to the academic respect we assign to games.

Appendix: The Investiture Contest Game Rules

The Investiture Contest – Basic Game

Introduction

The year is 1088 and the Investiture Contest dominates northern Italy. The emperor Henry IV – supported by the antipope Guibert of Ravenna and archbishop Anselm of Milan – is pitted against the newly elected pope Urban II and his allies countess Matilda of Canossa and her husband duke Welf of Bavaria. Which faction, imperial or papal, can exert the most influence over the fractious region?

Objective

The side which dominates the most provinces wins. Dominate provinces by having the most influence counters on them.

Board and Pieces

The main board consists of 25 provinces each representing a region of Italy or a neighboring kingdom.
The turn track consists of 6 spaces each representing a year.
Each player has a pawn representing their character and their entourage.
Each player has a set of 30 counters representing their characters influence.

Set up

Place a counter on the first space of the turn track.
Place the players' pawns in the following provinces:
    Emperor Henry IV (Yellow): Germany
    Pope Urban II (White): France
    Antipope Guibert of Ravenna (Blue): Ravenna
    Countess Matilda of Canossa (Green): Canossa
    Archbishop Anselm of Milan (Red): Milan
    Duke Welf of Bavaria (Black): Bavaria

Play

The Emperor goes first. Play then proceeds clockwise around the table.

Each player's turn consists of a series of actions. On your turn you may take all/any/none of these actions in the following order.

1) Movement: move your pawn into any adjacent province. You may freely move into provinces already occupied by other players.
2) Hold court: place up to four influence counters in the province your pawn occupies or any adjacent provinces.
3) Disrupt opponents: remove up to two counters belonging to other players from the province occupied by your pawn.
4) Despatch envoy: the player may place a single influence counter on any province on the board. This includes the province currently occupied by the player's pawn.

Play then passes to the next player. When play returns to the emperor, move the counter on the turn track on.

End of the game

The game ends at the end of turn 6. Establish which player has the most influence counters in each province. The side with the highest number of provinces under their domination wins.

NB: Although this is a team game, dominance is determined individually. So if Matilda and Welf each have two counters on Canossa, but Henry has three, then Henry is dominant and the province counts for the imperial side.

The Investiture Contest – Advanced Game

Introduction

The Investiture Contest was more complicated than a straightforward clash between emperor and pope and their partisans. Allegiances were fluid and each of the participants had their own goals. There are no fixed factions and each player is free to make and break alliances to complete their objectives.

Objectives

Each player has their own set of objectives. Their success is measured by how many of these they fulfil at the end of the game. For a higher numbered objective to count as complete, all lower numbered objectives must also be completed. i.e. if a player has not completed their first objective, then none of their other objectives counts as complete.

Emperor Henry IV (yellow):
1) Secure your kingdom: Be dominant in Germany
2) Re-establish political networks: Have at least one influence counter in at least twelve provinces
3) Take control of reform: Prevent the Pope from being dominant in Rome
4) Counter the Canossan threat: Prevent Matilda or Welf from being dominant in Canossa

Pope Urban II (white):
1) Exert papal authority: Be dominant in one of Rome, Milan, Ravenna, Germany, France
2) Exert papal authority: Be dominant in two of Rome, Milan, Ravenna, Germany, France
3) Exert papal authority: Be dominant in three of Rome, Milan, Ravenna, Germany, France
4) Exert papal authority: Be dominant in four of Rome, Milan, Ravenna, Germany, France

Antipope Guibert of Ravenna (blue):
1) Secure your seat: Be dominant in Ravenna
2) Reign in suffragans: Be dominant in three of Bologna, Ferrara, Modena, Canossa, Parma, Piacenza
3) Claim the throne of St Peter: Be dominant in Rome
4) Control the archdiocese: Be dominant in five of Bologna, Ferrara, Modena, Canossa, Parma, Piacenza

Countess Matilda of Canossa (green):
1) Retain the mountain fortress: Be dominant in Canossa
2) Protect the Canossan lands: Be dominant in four of Mantua, Modena, Ferrara, Savona, Pistoia, Pisa, Fiesole, Arezzo
3) Expand the Canossan lands: Be dominant in two of Brescia, Verona, Parma, Cremona, Bologna, Genoa

4) Secure the Canossan heritage: Prevent anyone else from achieving their final objectives

Archbishop Anselm of Milan (red):
1) Protect the see of Ambrose: Be dominant in Milan
2) Retain archiepiscopal authority: Be dominant in three of Pavia, Bergamo, Brescia, Cremona, Mantua
3) Counter the threat from Ravenna: Be dominant in Piacenza and Parma
4) Assert primacy: Be dominant in Ravenna or Rome

Duke Welf of Bavaria (black):
1) Retain Bavaria: Be dominant in Bavaria
2) Protect the Matildine lands: You or Matilda must be dominant in at least five of Canossa, Mantua, Modena, Ferrara, Savona, Pistoia, Pisa, Fiesole, Arezzo
3) Drive out the Imperial partisans: The emperor must not be present in more than four of Canossa, Brescia, Verona, Mantua, Modena, Lucca, Florence, Bologna
4) Secure the position of the house in Germany or Italy: Be dominant in Germany or Canossa

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