Welcome to *Game & Puzzle Design*

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THE term 'game design' seems to have shifted in meaning recently. As the digital entertainment industry booms and gains traction in our daily lives, so has game design correspondingly grown as a profession and research topic, with dedicated curricula at many – if not most – universities worldwide. Current research understandably focuses on those games with the greatest impact; video games, and especially big budget titles from major studios. But these are complex beasts with many aspects of design: conceptual art, character development, 3D modelling, narrative flow, motion capture, sound design, game engine architecture, code optimisation, level design, player analytics, and so on.

This journal instead focuses on the core of 'game design' in a traditional sense, namely the study of the underlying mechanisms of games and puzzles relevant to play. From the list above, 'level design' would be the most relevant aspect here. This is not to say that the journal will only focus on traditional games and puzzles, even if these are the instances that typically reveal their underlying mechanisms most clearly. I personally am particularly interested in the overlap between traditional and digital game design, and where these disciplines converge and diverge, especially when it comes to the design of games and puzzles for mobile platforms.

The smartphone revolution over the last decade has resulted in hundreds of thousands of entries in the iOS and Android app store 'Games' categories, at an average rate of *over one hundred new games per day*, with little or no real quality control. Understanding these games in terms of their underlying mechanisms of play, stripping away theme or 'skin' to reveal the core game underneath, could allow us to compare them objectively, and help identify the truly original from the variants and clones.

Game & Puzzle Design is not targetted at one specific readership (academics, practitioners, consumers, etc.) but seeks to find a common ground among all of those interested in the topic. The main criteria for submissions – apart from logical rigour – is their potential to interest and inform readers, and teach them something new about game and puzzle design. This first issue contains a variety of pieces, by authors from a range of backgrounds, which demonstrates the inclusive nature of the journal.

These include case studies, such as Dieter Stein's account of capturing the natural beauty of bird flocking behaviour in his game Volo, Néstor Romeral Andrés's Dominoes-inspired game Heptalion and the problem solving process he applied to create it, the Japanese logic puzzle Masyu in the words of its publisher, Kate Jones's account of games made by pairing symmetrical pentominoes, and Bruce Whitehill's historical reminiscences of adapting the arcade game 'Centipede' to a board game in the 1980s.

There are technical pieces that use computer modelling to refine the rules for a new version of the board game Risk (Ashlock and Lee), and to demonstrate the complexities of biasing the win conditions in games with more than one goal (Althöfer and Hartisch). There are philosophical pieces, such as Raf Peeters's account of the importance of serendipity in the design process, Mitchell Thomashow's personal ode to the GIPF series of abstract board games, and GIPF designer Kris Burm's musings on the correspondences between games and architecture.

This issue also includes some of my own pieces that explore higher level principles of game and puzzle design. These include the use of authorial control in puzzle design to phrase solitaire puzzles as games played between the setter and the solver, the importance of logic puzzles having unique solutions, and the benefits of 'hiding the rules in the equipment' when designing games.

The issue concludes with a reprint of J. Mark Thompson's classic article 'Defining the Abstract', a brilliant example of clear thinking that has had a profound impact on many people's understanding of games and puzzles. We will reprint such classic pieces, or their reworkings in a modern context, under the column *From the Archive*.

There are several correspondences between the pieces in this issue. Stein's inspiration of bird flocking behaviour as the basis for a game epitomises Peeters's assertion that designers should always be looking for new ideas to pursue. Romeral Andrés points out the importance of *poka-yoke* (mistake-proofing) in game design, while I take this idea and run with it in my piece 'Embed the Rules'. Peeters and Jones describe different ways to extend standard pentominoes to derive new paradigms for games. Burm's analogy of games as architecture may shed some light on Thomashow's description of the GIPF series as a cohesive whole.

The journal will host a number of regular columns. While these may be driven by particular authors who have made a commitment to perpetuating them, it should be made clear that those authors do not 'own' those columns as such. Any author can submit pieces under the banner of any regular column, and each issue may contain more (or fewer!) than one piece for each column, from different authors. We welcome suggestions for new columns by contributors.

As an added bonus for readers, a 'feature puzzle' will be selected each issue, and sample challenges printed throughout the issue where space permits. The first feature puzzle is Heptalion, the rules of which are described on page 17.

The main purpose of *Game & Puzzle Design* is to provide a venue for high quality work on the topic, and to encourage the exchange of ideas. We look forward to seeing the direction it will take, as traditional and digital forms of games and puzzles continue to converge, and the art and science of their design becomes better understood. The editorial team, editorial panel and I hope that you enjoy *Game & Puzzle Design*.

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