

# PainStation

Enhanced Duelling Artefact



PAINSTATION: Contra man's disintegration in incorporeal data space TV, display, PC and console are the vehicles of the world of popular computer games. The connection to always the same hardware is one reason why the main focus of all applications of that kind is on visual user guidance. Be it first-person-shooter or role play: the player "is glued" to the monitor. Undivided attention is additionally obtained via music and acoustic signals. However, artificial visual worlds and speedy animations are the most relevant eye catchers for the user. With every new version the graphic formats are getting more true to nature and increase their depth of definition and thus do one more thing to outstrip all haptic games. They also gain their attractiveness in that they function as always available solo entertainers for self-service alone. This kind of entertainment is neither tangible nor dependent on the presence of a second person or more. Even though via web or LAN so many players can participate as there are connections, PC games per se are solo games: the corporeal presence of another human being is not required; interaction only takes place by seeing what is going on on the screen. Therefore the more powerful the hardware, the more action and signals are included in the game formats, the more restricted is the involvement of the player on himself and most of all his seeing. This screen predominance corresponds to the reading and seeing culture of the age of information: common computer media/games communicate primarily by being seen. But in this form they are not the only possible outcome of our sociotechnicultural development, and particular needs are not the main cause for their one-sided essence.

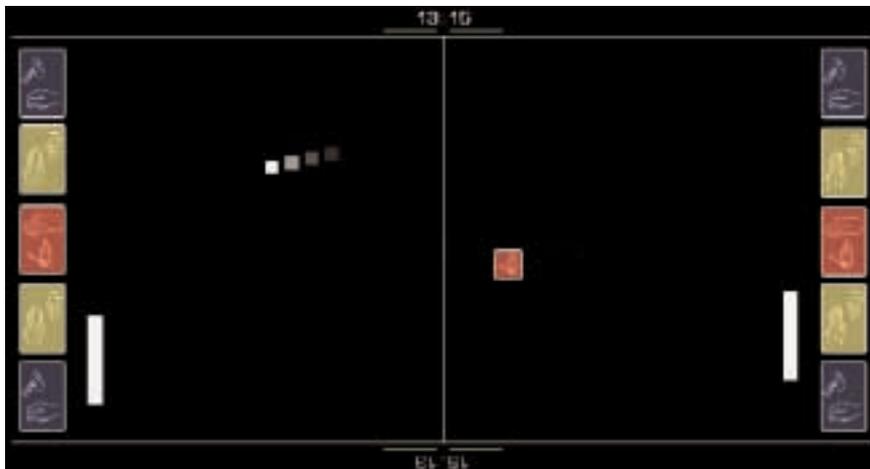
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For long media have been transforming the way of sensual perception, creating conceptions of the world and forming interaction even beyond them. Dematerialization is an apparent principle in these PC worlds: by focussing on the visual perception channel the haptic interaction was excluded. The user takes in by seeing and hearing. His feeling is inevitably subordinated to the reactive control of the input instruments. Hence, not only the contact to the machine remains sensually limited and distant. Also the user's self experience is separated from his further physical perception channels – in the typical man-machine setting not only from his own but also from that of others.

Upon detecting this deficit the question arose, how, first, the sensual contact, which is reduced in common computer games and, second, the principle of sociability, which is still only inherent in haptic games, can be integrated. It was the aim to develop a PC game, which releases, apart from the optical/acoustical man-machine-intersection, also signals which can actually be felt. Additionally, a second human counterpart should be included into the PC interaction: not only should man and machine be linked, not only virtual opponents be fought. It was the aim that human beings in plural behave to one another in a given artificial landscape. Such a reproduction of computer entertainment should call back the popular violence and power components, which are only visibly but the more brutally shown in most PC game worlds, from the quasi unpunished space of the distant observer into their real contexts of meaning and sensation. The integration of suffering real pain was also due to experience with non-computer games. It shows that haptic elements contribute more drama, excitement and tension and therefore make much more fun. Among other things you can see that in simple reaction games involving hitting one another as well as all kinds of sports, wherein physical endurance decides on victory or defeat. In particular those games, where physical pain is a leading element, are still very popular. These are ball games such as fireball, where co-players are knocked out, as well as deviations of card games like the German so-called "foltermaumau", where the loser is beaten on the hand with the left over cards. It is the rule in all these forms of entertainment that the players physically expose themselves to pain, or otherwise are eliminated from the game. But still or maybe just because of that the will to participate is unbroken, for – as everybody knows – victory satisfies even more if won under pain.

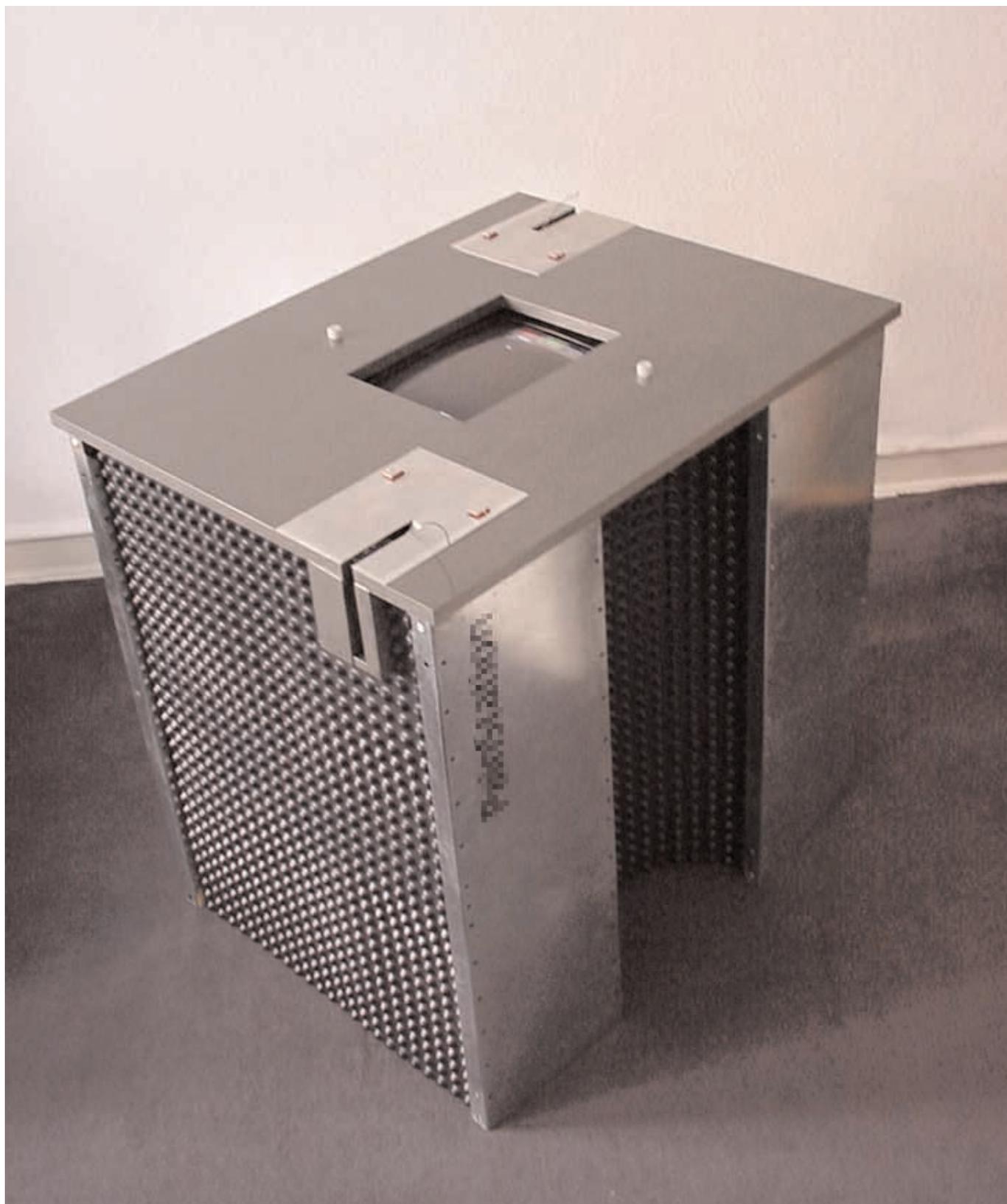
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The concept of "Painstation" was mostly inspired by these considerations and proved by great success in action. It was put into practice in a table console, where two opponents are facing each other eye to eye. The left hand is positioned on a sensor field, the so-called Pain-Execution-Unit (PEU). This way an electric contact is made, and the game starts. It stops as soon as one of the players removes his hand. In this case he has lost. The content is based on the PC game "pong", a simple console game of the first generation, also known as bar tennis, the course of which can be followed on a display in the middle. Extended by sound and graphic features, "pong" enables the player to directly enter the game due to its self-explanatory rules: it is the aim to catch and throw the ball back which enters the respective fields. Thus the right hand operates a variable transformer, which can move a bar acting as a bat up and down. In the following rally, upon precisely manipulating the variable transformer, both players try to place their bar in such a way that the ball is smashed back to the opponent's side like a return in tennis. If the player misses the ball, it is not only annoying but also painful: at both sides of the field arbitrarily arranged so-called Pain-Inflictor-Symbols (PIS) representing different sorts of pain are moving: heat, punches and electroshocks of varying duration. If the ball hits one of the symbols instead of the bar bat, the left hand of the player concerned is inflicted with the respective sort of pain. To this end the Pain-Execution-Unit is equipped with additional instruments.



As a result the players suffer pain, if they miss the ball and experience the opponent's pain, if he fails. As both participants are indirectly armed with the same weapons, the interplay is absolutely fair and captivates the players until they – always with pride – carry off wounds. The setting up of the Painstation over the last 12 months at various occasions (game conferences, festivals of the Arts School in Cologne) results in that this new game concept meets with great approval. Moreover, there are usually many spectators who spur on the players and enthusiastically follow the course of the game.

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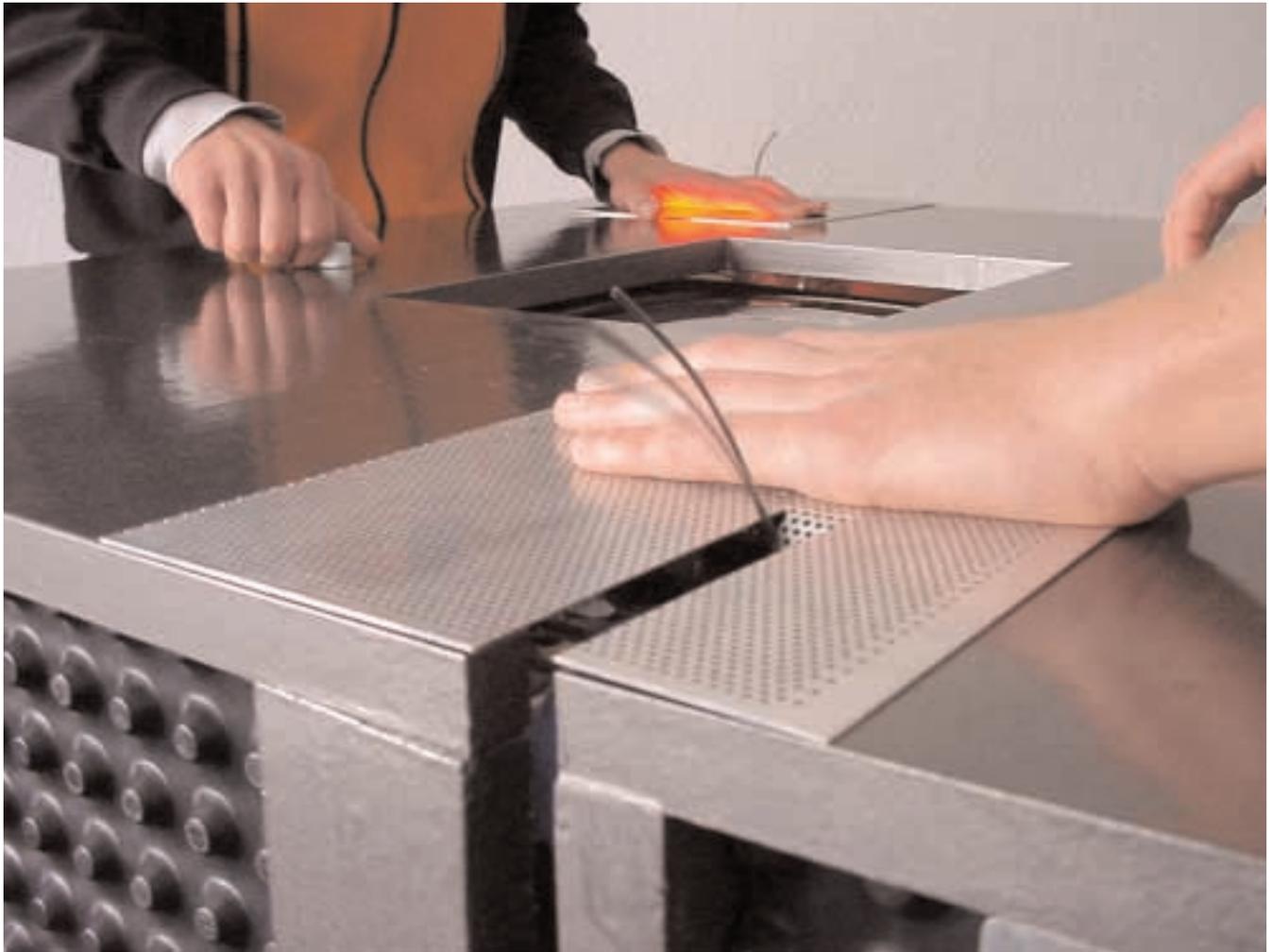
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## Technical Overview

The PainStation is a custom-made two player table console, driven by an Apple PowerPC. The analog/mechanical parts of the interface are controlled via an analog/digital converter and hand-crafted electronics. The game itself is a beefed-up version of the classic Pong written in Macromedia Director.

Block Diagram:

