

Futuristic Pieces

What futuristic piece shall I consider? Shall it be a futuristic painting, perhaps strange geometric shapes vaguely suggestive of something naturalistic or mystic? Or maybe I should consider a futuristic piece of music with electronically synthesized 'ethereal' sounds with meaningful silences? Or should I consider a strange futuristic piece of sculpture?

For inspiration I turned to Google and searched 'futuristic piece.' I found images of strange pieces of furniture and wondered how one could sit in such chairs or on such sofas, use such tables or sleep in such beds, if indeed beds they were; for the use of some pieces seemed somewhat arcane. Then my eyes fell on a set of so-called futuristic chess pieces which reminded me of Robert's "minimalist abstract chess set based solely on logical principles" and carved from rhododendron wood, which he presented at the Arts Alive open day last year.

<https://www.facebook.com/MolesCreativeWriting/photos/pcb.4564275600335196/4564274187002004/>

Indeed, *minimalist* would seem to be the dominant contemporary idea of what any futuristic piece, whether furniture, chess men or anything else, should be. The set I saw was:

<https://www.moma.org/collection/works/4240>

I discovered, however, that in fact it is not exactly futuristic as it is a Bauhaus design from 1924! But in the 1920s it would perhaps have seemed futuristic. You will see the rook, knight and bishop all have shapes that recall their moves. The king and queen are more arbitrary: the queen being a cube surmounted by a sphere, and the king a cube surmounted by a smaller diagonally set cube. But notwithstanding its being not strictly futuristic, I decided to see what other so-called *futuristic* designs might be suggested.

I soon found this:

<https://www.etsy.com/uk/listing/706753229/modern-wood-chess-set-ambrosia-maple/>

But although it may remind one of Robert's set and the Bauhaus 1924 set, the pieces seem to be abstractions of the more traditional 'Staunton' design rather than attempting to suggest the moves. Indeed, as I looked at other so-called futuristic sets, I was similarly disappointed.

But one did catch my eye: a set designed by Dennis Weijens.

<https://www.dennisweijens.nl/en/projects/chess-game.html>

The author claims the set is designed to give "both a futuristic and aerodynamic appearance." It is certainly minimalist. Although the board is oblong, it will be found to have the standard 8×8 cells of a traditional chess board. On most chess boards the cells are square; on this one they have to be oblong to accommodate the strange shapes of the pieces. I must confess that to me the board and the pieces look abstract and elegant, but I am not sure how easy it would be to play with them.

One feature of all these sets is that they use a two-dimensional 8×8 board which is hardly futuristic, as it has been the standard board ever since the game was invented in India in the 6th century BC. I did find circular boards, but these were known among the Persians, Arabs and Byzantines and have been around since the 10th century AD. The fact that eleven centuries later they are not commonly used suggests that they are unlikely to be the boards of the future.

I found three-player versions of circular chess. Other three-player chess variants may also be found using hexagonal boards and I have a version at home with 96 quadrilateral cells on a board with nine sides. But the trouble with all these variants is that you need a *third player*, which is probably why they have not caught on and are unlikely to be the chess of the future.

One modern style that does not use the 8×8 board is the Dalian Chinese chess set:

<https://www.hermes.com/uk/en/product/dalian-chinese-chess-set-H312940Mv01/>

with its palace, that the general (centre back row) and his two advisors are confined to, and the central river which the elephants cannot cross. There are also two cannons on each side. But, interesting though this may be, Chinese chess, or *xiàngqí*, has been around since at least the first century AD and possibly earlier, so it is hardly the chess of the future. The pieces shown, however, are unusual as traditionally the game is played with flat circular disks labelled or engraved with a Chinese character identifying the piece and in a colour indicating which player has ownership. The Dalia set has pieces which more closely resemble those on a western chess board, but I doubt that this combination of eastern and western forms is likely to be the chess of the future.

Chess has evolved from its Indian origin of 27 centuries ago. The exact moves of the original game are not known for certain, but the version adopted by the Persians and Arabs was passed on to the Byzantines and to Europe in the Middle Ages. Any practised and competent modern player would never lose if playing with medieval rules. That all games did not end in a draw reflects the level of playing in an age when it was probably difficult to find opponents to practise with regularly. But clearly as the Middle Ages advanced and people did become more practised the deficiencies of the old game became apparent and in the 15th century changes took place giving the bishops and the queen their modern moves, making these pieces far more powerful.

In the modern game, the openings have been thoroughly analyzed as have the end-game moves; but we still have the middle game to test the wits of players. However, as computers become more powerful, the middle game can be expected to become more and more analyzed and we may expect a futuristic variant of chess to evolve to make the game more challenging. One idea is a variety called, hexagonal chess, the best known version being that of Władysław Gliński in 1939. Other variants have appeared since. But none of these have really caught on and cannot be claimed to be the chess of the future. So what will it be?

In the 1950s I was keen reader of the Eagle comic, with its hero, Dan Dare ‘pilot of the future’, on its front page. He really was a pilot of the future as he and his companions flew around the solar system in their space ship. Now more than seven decades later men have got no further than the moon and the planets remain unvisited, except in few cases by robots.

I recall seeing Dan play three-dimensional chess as he was flying, if memory serves me right, among Saturn’s moons and landing on at least some of them. Let us assume the Eagle was right and that when humans do get out there into the solar system and beyond, the two-dimensional 8×8 chess board has been consigned to history or, perhaps, is just thought of as a child’s game and grown-ups play chess in three-dimensions. What shall we find?

The idea of three-dimensional chess is obviously not new, as it was being suggested way back in the 1950s. Indeed we find as early as 1851 Lionel Kieseritzky had proposed Kubikschach (‘Cube Chess’), using eight 8×8 boards placed one above the other. According to David Pritchard, a British chess player, chess writer and indoor games consultant of the latter 20th century, this format is “the most popular 3-D board amongst inventors, and at the same time the most mentally indigestible for the players ... Less demanding on spatial vision, and hence more practical, are those games confined to three 8×8 boards and games with boards smaller than 8×8.”

I think, in fact, it was this 8×8×8 set up that Dan was playing in the Eagle comic. But playing on a cube of 512 cells is possibly too mentally indigestible for human players, as David Pritchard

claimed. Ferdinand Maack developed Raumschach ('Space Chess') in 1907, arguing that for chess to be more like modern warfare, attack should be possible not only from a two-dimensional plane but also from above (aerial) and below (underwater). His original formulation was for an 8×8×8 board, but after experimenting with smaller boards he eventually settled on 5×5×5 as best, using the standard chess pieces augmented by a new piece, known as a 'unicorn'. Each player starts the game with the standard chess pieces, the pawns being increased from eight to ten, and two unicorns.

But probably now the most familiar three-dimensional chess variant is that which may be seen in many of the Star Trek television episodes and films. Basically it retains just the 64 cells of traditional chess but re-arranges them onto separate platforms in a hierarchy of spatial levels; there are three fixed level boards of 4×4 and four 2×2 movable boards, known as attack boards. Basically the moves are similar to normal western chess, but the repositioning of attack boards gives added interest and complexity. But I am sure with just 64 cells and standard chess pieces, the opening and end game moves are as susceptible to analysis as the standard two-dimensional game.

When I looked on the Internet for 'futuristic 3D chess' I found *either* the Start Trek version, usually with minimalist 'futuristic' shaped pieces *or* the three 8×8 boards versions, nearly always shown with standard Staunton pieces and, sadly in my opinion, I found no commercial versions of Raumschach.

<https://www.chess-site.com/chess-sets/star-trek-chess-set/>

<https://www.mastersofgames.com/cat/chess-draughts/chess-3d-strato.htm>

There are also some so-called three-dimensional forms which are, in fact, just the standard 8×8 board with cells on variant levels; these are just fancy versions of the standard western game of the past six centuries and are neither futuristic nor three-dimensional in any meaningful sense.

If the future of chess is to move into three dimensions, will it be based on the three 8×8 boards version or on the Star Trek version? Or will Raumschach, more than a century later, make a comeback with its unicorns? Or will it be something more elaborate (though possibly not as elaborate as that portrayed in the Eagle of the 1950s) ?

I leave you, dear readers, with two thoughts to ponder:

- Why are futuristic pieces, whether of chess or furniture or anything else, so often conceived to be *minimalist*?
- What three-dimensional form of chess would a pilot of the future be playing as she or he cruises around the solar system and beyond?