

Color-Coded Chromatic Chess



Please click on the still image for animated re-creation of Duchamp's Color-Coded Chess Pieces;

[Please click to start playing chess game immediately against the computer.](#)

The first generation of Duchamp's Color-Coded Chess Game has been created using computer chess program and 3 dimensional chess pieces that appropriate both Duchamp's chess piece designs and proposed color system.

Created by Francis Naumann, with animation by Robert Slawinski and chess game appropriation by Sumeet Malik.

[click to enlarge](#)



Figure 1

Duchamp created both 2D and 3D chess pieces during his lifetime. *Chess Pieces* of 1918-19 represents 3D designs (top), while *Pocket Chess Set* of 1943 illustrates his 2D chess pieces (bottom).

While living in Buenos Aires, Duchamp began to take the game of chess so seriously that he wrote friends to say that he was on the verge of becoming “chess maniac.” He reviewed various published games (especially those of Capablanca, the great Cuban world champion, whose play he idolized) and he relayed various game positions to correspondents by means of a stamp set that he designed and cut from small pieces of rubber. It may have been this process that inspired him to create a new three-dimensional set out of wood, designing the pieces himself. **(Fig. 1)**

Although Duchamp has been credited in many scholarly publications (including my own) of having carved the pieces himself—except for the Knights, which he said were carved by a

local craftsman—it has been recently pointed out that the other pieces are so precisely and mechanically produced that they were likely turned on a lathe by a professional machinist.⁽¹⁾ Larry List—an artist and curator who has studied this set quite carefully—has concluded that what probably actually took place was the reverse: the pieces were likely made by a local craftsman, while Duchamp carved the Knights entirely himself.⁽²⁾ List also observed that “with their collars of stepped and tiered concentric disk forms,” the pieces bear a resemblance to the style of sets produced in the French Regency/St. George era. Indeed, although united by elegant tapering bases, the individual pieces are actually quite conventional, with the exception of the King and Knight (**Fig. 2**). The Knight is the piece that varies most greatly even in standard chess set designs, such as the Staunton Chess Set (1849) (**Fig. 3**), the most popular and widely used set to this day. Duchamp’s Knight creates a horse’s head out of a stylized Art Nouveau violin scroll, its mane punctuated by an even repetition of small squares (lending the overall design a Futurist appearance). His King displays a crown, but the cross that usually hovers above his head is missing, “my declaration,” as Duchamp later explained, “to anticlericalism.”⁽³⁾ The result is that the Queen and King (**Fig. 4**) are quite similar in appearance, a characteristic Duchamp may very well have desired (since we know that he would soon go on to invent a female alter-ego), but the results can quickly spell defeat for someone unaccustomed to playing with these pieces (as I can myself attest, having played—and lost—several times on this very set).

click to enlarge



Figure 2

Marcel Duchamp, Knight, from the *Chess Pieces*, 1918-19



Figure 3

Staunton Chess Set

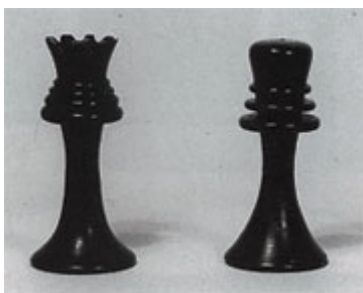


Figure 4

Marcel Duchamp, King and Queen, from the *Chess Pieces*, 1918-19

In the summer of 1919, Duchamp packed his new chess set into his bags and set sail for Paris, where he spent a few months visiting family and friends. He spent some time with Henri-Pierre Roché, the French diplomat and writer whom he had not seen since in New York. Roché was struck by the beauty of Duchamp's chess set and, fearing that it could disappear, asked if he could arrange for the set to be cast (into what material is unknown). "The operation is successful and the pieces have reproduced very beautifully," Roché noted in his diary on December 20, 1919.⁽⁴⁾

In January of 1920, Duchamp returned to New York, where he spent approximately two years engaged in a variety of art-related projects (completing his *Large Glass*, constructing a new motorized optical device, and helping Man Ray and Katherine Dreier to plan a new museum of modern art). Although these activities must have been demanding, he managed to find the time to engage in his ever-increasing passion. He joined the Marshall Chess Club, and began his first attempts at professional play, entering into various competitions and tournaments. "It was down near Washington Square then," he told Calvin Tomkins, "and I spent quite a number of nights playing there until three in the morning, then going back uptown on the elevated. That's probably where I picked up the idea that I could play a serious game of chess."⁽⁵⁾ On October 20, 1920, he wrote to his brother-in-law and former studio-mate Jean Crotti, reporting on his activities, and he seized the opportunity to tell him about a chess set he had designed, which he was planning to produce and sell:

As for chess? Great, Great! I played a lot in simultaneous matches that Marshall held, playing on 12 boards at a time.

And I won my match 2 times.

I've made enormous progress and I work like a slave. Not that I have any chance of becoming champion of France, but I will have the pleasure of being able to play almost any player, in a year or two.

Naturally this is the part of my life that I enjoy most.

This winter I will be on Marshall's team (his 8 best players) against the other N.Y. teams. Just as I had already done last winter—but this time I'm hoping to win a few games (which I didn't then)—I am *crazy about it* —

Something else—I am about to launch on the market a new form of chess sets, the main features of which are as follows:

The Queen is a combination of a Rook and of a Bishop—The Knight is the same as the one I had in South America. So is the Pawn. The king too.

2nd They will be colored like this.

The white Queen will be light green.

" black " " " dark "

The Rooks will be blue, light and dark.

The Bishops " " yellow, " " "

The Knights red, light and dark.

White King and Black King

White and Black Pawns

Please notice that the Queen in her color is a combination of the Bishop and of the Rook (just as she is in her movements)—

3rd I am going to ask Marshall if I can use his name and call them Marshall's Chessmen. I will give him 10% of the receipts.

4th They will be made out of cast plaster mixed with glue, which will make them as sturdy as wooden pieces. (Perhaps your stone might be useful; I will send you a set as soon as it's ready and you can experiment with it if you like)—⁽⁶⁾

The design and color-coding of the chess set Duchamp described is ingenious, for the modeling and color of each piece would

serve as continuous visual reminders of its movement and strategic power. The Queen, for example, would be a fusion of the design given to the Rook and Bishop, being that—in both power and movement—she combines their characteristics. Since the Rook is Blue, and the Bishop is Yellow, the Queen is naturally green, since she combines their colors (when yellow is mixed with blue it produces green). The Knight—which shares no characteristics with any other pieces on the board (neither in terms of movement or power)—is colored red, and, like the King and Pawn, takes its design from the chess set Duchamp made in Buenos Aires. Opposing Kings and Pawns are black and white, while one side of the board is distinguished from the other by being cast in a darker (black) or lighter (white) tonality.

“Why isn’t my chess playing an art activity?,” Duchamp later rhetorically asked the writer Truman Capote. “A Chess game is very plastic. You construct it. It’s mechanical sculpture, and with chess one creates beautiful problems and that beauty is made with the head and hands.”⁽⁷⁾ The game you construct with a chromatic set, therefore, would be very different than the experience of playing with more conventional, black-and-white pieces. Duchamp later compared the game of chess to a “pen and ink drawing, with the difference, however, that the chess players paint with black and white forms already prepared instead of inventing forms as does the artist.”⁽⁸⁾ Extending Duchamp’s analogy, we could then say that playing on the chromatic set would be the equivalent of drawing in color.

So far as we know, Duchamp does not seem to have taken his idea to produce this set any further, at least not while he lived in New York. Shortly after returning to Paris in 1922, he again met with Roché, where they reminisced about old days

in New York, and Roché admired “the beautiful set of painted chessmen.”⁽⁹⁾ This would indicate that at least one example of the painted sets was made, possibly the replica Roché cast two years earlier in Paris and which Duchamp probably painted—in the manner described in his letter to Crotti (cited above)—while living in New York. Unfortunately, to this very day, no trace of this set has been found, but we have here provided a virtual reconstruction, which the reader is invited to play. [Good luck: you will be playing the computer.](#)

Notes

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1. This observation was made by the artist Richard Pettibone after having read the citation in my book Marcel Duchamp: The Art of Making Art in the Age of Mechanical Reproduction (New York: Harry N. Abrams, 1999) 78-80.

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2. Larry List, The Imagery of Chess Revisited (New York: George Braziller, 2005), the catalogue for an exhibition of the same title at the Noguchi Museum, Long Island City, New York, October 20, 2005 – March 5, 2006 (Mr. List kindly provided the author a copy of his manuscript for this publication).

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3. As told to Arturo Schwarz and quoted in Schwarz, The Complete Works of Marcel Duchamp (New York: Delano Greenidge, 1997) 667.

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4. See Jennifer Gough-Cooper and Jacques Caumont, "Ephemerides on and about Marcel Duchamp and Rose Sélavy," in Pontus Hulten, ed., Marcel Duchamp: Life and Art (Cambridge: MIT, 1993), entry for December 20, 1919.

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5. Quoted in Calvin Tomkins, Marcel Duchamp: A Biography (New York: Henry Holt and Company, 1996) 210.

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6. Marcel Duchamp to Jean Crotti and Suzanne Duchamp, October 20, 1920, ALS, Papers of Jean Crotti and Suzanne Duchamp, Archives of American Art, Smithsonian Institution, Washington, D.C.; see Francis M. Naumann, Affectueusement, Marcel: Ten Letters from Marcel Duchamp to Suzanne Duchamp and Jean Crotti, Archives of American Art Journal 22. 4 (1982): 14, and Naumann, ed, Affectionately, Marcel: The Selected Correspondence of Marcel Duchamp (Ghent: Ludion Press, 2000) 92-94.

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7. Quoted in Richard Avadon, ed., Observations (New York: Simon and Schuster, 1959) 55 (cited in Schwarz, Complete Works, 72).

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8. Remarks quoted from an address that Duchamp delivered at a banquet for the New York State Chess Association, New York, August, 1952 (quoted in Schwarz, Complete Works, 72).

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9. Cooper and Caumont, "Ephemerides," entry for January 17, 1922 (emphasis added).

Figs. Pocket Chess Set, 1, 2, 4

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