Art, Chess, Beauty and Depth

21.12.2005 "For us chess players the language of artist is something natural," says classical chess world champion Vladimir Kramnik in this in-depth interview with German artist Ugo Dossi. Their in-depth dialog probes the creative processes that take place in each field, and the intersection points between chess and art.

Ugo Dossi is a well-known modern artist in Germany, whose works, according to Henry Martin, "deal with systems and images that open up spy-holes onto the intuition of the infinite, appealing to the part of us that would be capable of peeping through for a look, if only we were capable of finding it."

R. Pontecorvo writes: "Ugo Dossi uses images and metaphors of endlessness to seduce and induce the viewer to immerse in a realization of the infinite. His tools seem of unlimited spectrum, ranging from tiny objects in small boxes, which he calls "Worldmodels", to large sculptures in architectural space, to enormous "Art-Fields" in the landscape."

About Art, Chess, Beauty and Depth, Creativity, Telepathy and Artificial Intelligence

A conversation between Russian Classical Chess World Champion Vladimir Kramnik and German Artist Ugo Dossi

Dossi: Chess commentators often describe your style with terms from the language of art. They speak of harmony, flow and depth, resplendence, crystalline clarity and intensity. On occasion even inconceivability. How do they arrive at this appraisal?

Kramnik: For us chess players the use of the language of art is something natural. Perhaps it is also due to the fact that to us, chess is similar to art. Every top player has his own style, just as every painter has his own personal signature. Chess is an infinitely complex game, which one can play in infinitely numerous and varied ways. I am convinced, the way one plays chess always reflects the player’s personality. If something defines his character, then it will also define his way of playing.

If we take Gary Kasparov as an example: He is very emotional. He plays in a sort of "hurricane style". He is like a tsunami, which always surges ahead and attempts to drown his opponent. My way of playing is very different and Karpov plays very differently as well. An impatient person plays differently than a more patient person. He will be more likely to start an attack which has not been thought through to the last detail. Naturally this only pertains to the top players. Only he, who penetrates into the depth of the game, can express his personality in it. I suppose in art it is exactly the same. For me art and chess are closely related, both are forms in which the self finds beauty and expression.
When I speak of the beauty of a game of chess, then naturally this is subjective. Beauty can be found in a very technical, mathematical game for example. That is the beauty of clarity. It is not fireworks and also not a huge achievement of fantasy. Beauty can equally be found in precision. And then there are games, which are perhaps technically imperfect, but the power of imagination in them is full of beauty. I believe every chess player senses beauty, when he succeeds in creating situations, which contradict the expectations and the rules, and he succeeds in mastering this situation.

Therein resides the beauty of a spontaneous game strategy, an idea which may be irrational and requires no logic, but is full of power and can be successfully realised.

**Dossi:** At the end of the blindfold game "Amber blind" against Topalov in Monte Carlo in 2003, you apparently murmured "Such a beauty, such a beauty"! What happened in that particular game?

**Kramnik:** In that game a whole series of moves developed, which were extraordinarily astounding and unorthodox. For example in the middle of the game, my king wandered over the entire board. Something like that occurs exceedingly rarely. Normally one would thus lose the game. But in this special situation, it functioned and my king penetrated deep into his defence. Seen from a military perspective, it was as though a general were to fight in the front rank like a simple soldier with a bayoneted. Topalov had a huge lead materially and the threat from my attack was not even active yet, it would have arrived in two moves at the earliest, but there was no way for him to prevent it. He had the material, he had the space, and he had the time but he could not defend himself anymore. It was actually an impossible playing situation, unexpected and full of beauty. Full of details, each was full of beauty in itself. [Click to replay the game]

**Dossi:** Chess is a game where the object is to gain a spatial and temporal advantage, ergo time and space themselves. Thereby the player himself moves in a complex space of game possibilities. The movements in this space seem to be experienced as either beautiful or as failed. During the dance in this complex space of game possibilities there are apparently phases in which the perception of beauty arises. "That was a beautiful move" and in its entirety "it was a beautiful game". Is there something in chess which resembles kinaesthetics, comparable to the beauty of movement in dance?
The director of the Arts and Exhibition Hall of the Federal Republic of Germany at Bonn, Dr. Wenzel Jacob, presents the German Finance Minister Peer Steinbrück (left) and World Chess Champion Vladimir Kramnik two Dossi exhibits which depict the blindfold game Kramnik-Topalov in Monaco, 2003.

Kramnik: The development of beauty in chess never depends on you alone. No matter how much imagination and creativity you invest, you still do not create beauty. Your opponent must react at the same highest level. Even if you play perfectly, a fault of your opponent’s can destroy the entire beauty of the game. The stronger your opponent, the stronger the game develops. In chess one cannot control everything. Sometimes a game takes an unexpected turn, in which beauty begins to emerge. Both players are always instrumental in this. To a certain extent it is like a dance. Both dancers must be creative, in order to keep the creativity flowing. To play against someone who is much weaker, is extremely dissatisfying. Strength can only develop in the presence of a strong opponent.

Dossi: You mentioned before that the style of playing is also a kind of psychogram of the player. The style of playing allows insight into the peculiarities of the opponent’s personality. According to this, it is to be expected that one has more affinities with one opponent than another, which one prefers to encounter in the game. Are there players with whom it is more beautiful to play?

Kramnik: It has less to do with the person per se. The strength of the playing ability is much more important. Only if the strength of the opponent’s playing ability is comparable, does the game develop. Over and above this, it also has much to do with the style of playing. I always enjoyed playing with Topalov and also played beautifully. Some players make advances to you through their style, while by virtue of the same thing, others are incredibly difficult. It always takes two partners in order to create intensity and beauty in concert.

In this context I find the experience of a long match very interesting. A match is comprised of many games. With Kasparov there were fifteen and the match lasted a month. This generates a close affinity. Every second day you sit facing each other. You spend a huge amount of time under great concentration together. You begin to feel the opponent very exactly. With time a sort of aura of mutual telepathy develops.

Dossi: I remember a simultaneous match in the Arts and Exhibition Hall of the Federal Republic of Germany in Bonn. All the spectators experienced your play like a performance with extraordinary high tension. I have rarely experienced an art performance with a comparable level of intensity. Do you react to the emotions of the audience in your game? Is there a sort of interaction with the audience?
Kramnik: This is hard to express in words. Every game is surrounded by a kind of aura: the more important a game is, the higher the tension, and all the stronger the aura. I remember my world championship match against Kasparov. In the decisive phase an enormous tension prevailed. In Russian we say: you could cut the air with a knife. There wasn’t a sound, no loud breathing, no cough. I was so immersed in the game myself that I perceived nothing of what went on around me. But the moment I relaxed a bit again, I felt the silence physically. We were in a huge hall and I felt the enormity of the tension, also in the audience. I had a similar experience at my last world championship match against Peter Leko. The tension was physically palpable. Something like this only occurs at a performance, which touches people deeply.

Dossi: Can a sort of telepathy between the player and the audience occur?

Kramnik: I believe so. I believe in this sort of interaction.

Dossi: Can one say that with the intensity which you bring into your game, you transmit a similar intensity to the hundreds of people in the audience?

Kramnik: I would be hard pressed to say exactly what occurs at the time, but I can feel that it is happening. In those cases, my team members also tell me after the match: "You created unbelievable tension in this or that moment." And precisely this tension is a strong motivation for me at the same time, to create more and more of it. This tension forces you to give everything in a game. And when you give everything, you always create beauty.

Dossi: Some players report, that in the course of a game they sometimes see all the moves which are still possible flash by, like a vision of simultaneity. Such a vision would signify that in that moment the player can leave the linear experience of time, in which we are ensnared in daily life.

Kramnik: In the state of prolonged, high concentration, many things are possible. One also plays in order to reach this state.

Dossi: One could become slightly envious of that. That state usually is reserved for enlightenment or an orgasm On the other hand, art also intends to change the everyday state. To heighten sensitivity and broaden perception. To direct the view to one's own depths and the heights above them. Art and chess need depth. Without depth everything remains flat and superficial.
I believe letting art which comes from inner depth affect you and following a chess game, which leads with high concentration to the depth of the game, are both forms of meditation. The more deeply you enter into this meditation, the more the object of meditation can give back to you. Intensity and beauty. I remember an automatic drawing, which a young woman drew during one of my courses. On the paper a horizon was implied, beneath which, also in the form of waves, writing could be perceived. It said: "A human being is an animal with a longing for depth". A very poetical expression for a typical longing. I believe it is the same depth, in which you move when you dive into the depth of the game and take your audience into it with you. For those who can follow you there, it seems to spark an experience of beauty.

Kramnik: In a way you are correct. Nevertheless, there are very few who can reach that depth. Chess has many layers, also in its depth.

Dossi: Marcel Duchamp, one of the great revolutionaries and precursors of modern art, was an ardent chess player at quite a high level. Duchamp said that he had met many artists in his life and many chess players. Some artists had also been chess players, but all chess players were artists. You come from an artistic family. Your father is a painter; your mother is a pianist. You know artists and the world’s best chess players. Do you see similarities and affinities between these two groups characteristic to both?

Kramnik: I am very familiar with both worlds. Some chess players engage in chess as a sport. For me and other top players, chess is an art. Art and chess are just different fields, in which the same poetry finds expression. You enter the creative process and attempt to arrive at a certain point. You cannot express what you seek in words, but you seek. I know many artists, writers and musicians. And an unwontedly high percentage of them play chess. On the other hand, the majority of top players love art. This mutual respect indicates to me that both are indeed similar in essence.

Dossi: Marcel Duchamp was no friend of the world of official art. He pitted himself against it to prepare its end. In return, official art has hardly followed his invitation to recognize chess as an art.

If our exhibition Elemente der Schönheit in the Tretjakov Gallery contributes to making chess visible as a form of art, it will be a big step. The opportunity should not be underestimated. Moscow is an exceptional place and the Tretjakov Gallery is an exceptional museum. It is the largest museum of Russian art from medieval times through to the present. In Russia chess has a different value and higher significance than in the West and the art of chess has a much further developed presence. In order to see the beauty of this artform, one needs eyes which have developed the capacity for it. By the way, this is true of all other forms of contemporary art. Without the context, no text. Without previous knowledge much inevitably remains strange, and appears to most to be ridiculous. Just think of the urinal Marcel Duchamp created, which for some is a milestone of modern art, and for others an absurdity.

In 2003 your opponent in Bahrain was a super computer, with the hitherto greatest depth of calculation. Appropriately its name was "Deep Fritz".

Kramnik: It calculated millions of moves per second. Our match ended in a draw. It is not a
human way to play. This is difficult to explain. Playing this way creates much less beauty. Beauty can arise on occasion, but only by coincidence and very rarely. I also had to fight hard for a draw, because this machine is a monster. No real playing materialises. You can only pay attention that you make no mistake, whereas against a human opponent a mistake can occasionally result in an interesting twist.

Kramnik vs Deep Fritz in Bahrain, 2002

It is extremely difficult to play against a machine with this playing ability. From the very beginning you wander along a very narrow ridge and you know that you will be toppled for any inadvertency. At the same time, it is also easier than playing against a human being, for if you have played the right move, the machine is much more predictable. With a human opponent, you know his character and in which direction he will develop his game. A computer has no character and no direction. It is chaotic. It can make any move which conforms to its calculation of plausibility. And naturally it has no face in which you could read additional information. Deep Fritz was completely chaotic and played incredibly strongly. There was no vision there, only a phenomenal computing power. It could calculate all the possibilities of fourteen moves ahead, that is to say with all possible consequences.

Ugo Dossi: "Elemente der Schönheit" (Elements of Beauty), 2005

Nevertheless I believe that chess is still too complicated for a computer, at least up to today. With checkers, no person has a chance against a computer. With chess, a human being still has a chance. It sounds paradox, since precisely in the game of greater complexity the computer should prevail with its strengths. But to date this does not seem to be the case, because when the game becomes very deep, a person can perceive up to twenty-five moves ahead.

Dossi: I think you were the first person who confronted artificial intelligence in such a depth. What was the encounter like?

Kramnik: I view it more as a scientific experiment. From my point of view, it did not have much to do with chess. I realized that I thought and functioned differently, than when I play against a human being. It was an interesting experience, but also a difficult one.
**Dossi:** Perhaps "artificial intelligence" is an alternative path which evolution is in the process of pursuing. Ultimately artificiality and art are also products of nature. Evolution took 85 million years of time to bring our species forward, with a brain, which can reflect on evolution itself, on life and death, on space, time, creativity and beauty, and which can transmit the results of these reflections in the form of art to its own species over time. A few thousand years later this brain brought forward a game, chess, which is meant to help the members of this species to pass time, the arch-enemy and main reason for our individual mortality. If a few hundred years later this brain yet again invents an artificial work, perhaps a work of art, an artificial intelligence, which can measure itself in this game against a human brain, then it is also a natural development. And a prostration to the creativity and beauty of mathematics, which are learnt expression in this work of art.

![Ugo Dossi: "Empfangsgerät" (reception machine), 1981](image1)

**Kramnik:** I have thought about it a lot, but I have no answer. In any case, it is interesting to observe how a computer thinks. One can see in its displays and on the monitor how active it is. It calculates every move according to the probability of its chance of winning, compares it to the next move, goes to a third and returns perhaps to the first. During this process it changes its opinion constantly. The disposition to doubt seems to be a prevailing principle in its form of thinking. I cannot say whether this already qualifies as "artificial intelligence", but I think we are on a path in that direction.

**Dossi:** Thus we are touching on a question which I find particularly fascinating: Where exactly is "beauty" to be found? Beauty itself cannot be perceived. We have no physical sense for it in particular. We can only perceive elements, which in their combination, in their ratio of composition trigger a feeling of beauty in us.

In order to experience beauty, it has nevertheless to be inside of ourselves. Not outside of ourselves. Not in a landscape, not in a sunset, not in the body of a woman and also not in a work of art. Neuroscientists say that the perception of beauty is caused by the disbursement of a certain hormone or neuron-transmitter. When this substance is present in an adequate concentration in a particular part of the brain, then it activates a special perception which we call "beauty".

![Ugo Dossi: "Nefer/Sex", 2002, "Nefer/I AM", 2000](image2)
And it seems that a determinate set of impressions must act together, in order for the hormone to be disbursed. In their own way the mental movements of a game of chess seem to cause this effect equally on players and the audience in the same fashion, as the effect of painting, music or poetry does.

Kramnik: I believe that every top player, consciously or unconsciously, wants to create beauty. I don’t think it’s so important, whether someone thinks of creating art while playing. What counts is the result. When the result is beauty, then for me it has something to do with art. On a personal level this is something quite conscious. I pay a lot of attention to designing a beautiful game. Perhaps there are artists, who paint a picture and do not think about art in the process, but only of the practical necessities.

I’m just thinking about that wonderful picture by Modigliani, where he depicted a small girl, the daughter of the innkeeper where he couldn’t pay his tab. Perhaps he thought less about art, while he was painting than about his debts. Nevertheless it is a wonderful picture.

Dossi: It is difficult to define what art is, and even more difficult, what may not be art. Art is reluctant to be forced into a defined frame and even less does art like a context to be forbidden to it. Beauty and intensity, and creativity are elements of art. There, where they can be perceived, is presumably where art is. In chess all three elements are present. Therefore, and not only because of this, I see no reason not to regard chess as an art.

Kramnik: I know so many people who play chess at the highest level of the game and play chess as an art. For me there is no difference, if someone says he takes pleasure in music or painting or chess.

Dossi: Chess also has depth of content, the content is even dramatic. Reminiscent of the Mahabharata, the great Indian poem. Two armies, good and evil, stand opposite each other, battle against each other with all their means. Pawns and figures are sacrificed, strategies are developed, openings are sought, all in order to kill the adversarial king. It is about life and death, about individual destinies and the victory of black or white. Do you sometimes think of this dramatic dimension when you play chess?

Kramnik: Never actually. I think much more about creating good, intense and beautiful situations within this micro-structure. The drama of the individual figures would only distract me. Before and after the game I am much more aware of this dramatic background, during the game however, never. A game is not so much a battle, as much more a dance with a partner who is on a par with you.

Dossi: Who is your favourite dancing partner at the moment?

Kramnik: I would be hard put to say. I appreciate and respect every top-level player. Each one of them is like a universe. His entire personality, his charisma and many years of concentrated preparation flow into his playing ability. His view of the world, his way of viewing chess, all of this together moulds his style of playing. My style is my style, but alongside it there can be millions of others which all lead to the same result.
My way of playing is strongly directed by the joy of the game. I want it to be beautiful. I know artists, who have described their work on a piece of art in a similar fashion. When my father talks about his work on a picture, it sounds similar. He points to a certain location and says "this is well executed and this next to it is not perfectly solved" and that he particularly enjoyed painting this part. He takes joy in certain details of his composition, but he is extremely critical with regards to others. As a child I would have loved to paint and later I integrated that desire to be creative in my chess playing. Personally I can thus penetrate much deeper. Every form of art can trigger joy and intensity and beauty. It is irrelevant whether it is art, or architecture, or music, or chess. What is important is that one can share it with people.

**Dossi:** Hundreds of people attend your tournaments, in order to participate in them. Over and above that you have an even larger audience, which follows all your games on the Internet, and literally tracks your every move online. The sharing which you speak of is only limited by the depth to which the observer can follow you. The deeper they immerse themselves, the more they can get out of it.

**Kramnik:** That gives me great joy as well and they should take whatever is to be taken. That they accept it is a great source of satisfaction to me. Nevertheless this limitation also means that beauty is always conveyed on different levels. In order to penetrate the depth of the game, someone must have acquired a lot of knowledge. One needs much preparation, and also experience in playing. I believe a musician experiences this similarly. But the more there are in the audience, the more intense the effect of the concert will be on everyone. When I am in a concert, I know that I only reach a certain limited depth of the music. But to feel that it goes even deeper than that, has always fascinated me.

**Links**

- [Vladimir Kramnik web site](http://www.chessbase.com/newsdetail.asp?newsid=2809)
- [Ugo Dossi web site](http://www.chessbase.com/newsdetail.asp?newsid=2809)