

CHESS

TERRITORIES OF PLAY VI
CRITICAL ESSAY | FALL SEMESTER 2023

47°24'28"N, 8°37'27"E
ZÜRICH, SWITZERLAND

COLLABORATORS
NONE

Chess is based on the operations of two sets of hierarchically organized pieces. Both sets are equipped with the same pieces to begin the game. Alternating after every move, the goal of each player is to put the opponent's king into a checkmate position. This condition leads to every move having attacking as well as defensive consequences for both players. A separation between offense and defense is not found in the game of chess, but rather a calculated risk taking strategy has to be utilized to be successful at the game of chess. This concept is consistend with Beck's theory of the Risk Society from 1992, which is based on a systematic approach of dealing with hazards and uncertainties.

TERRITORY AND OBJECT

The game is played on a square checkered board consisting of 64 smaller squares (8 x 8). The boards layout is perfectly symmetrical. To begin the game, both players place their pieces in a specified way on opposing sides. The player with the white pieces starts the game with his first move. Who plays with white or black respectively is drawn before the game and is purely based on luck. Each player is obliged to make exactly one move per turn. Not making a move is not possible as well as making more than one move. Moves have to alternate after each and every turn. Often times, a play clock is added to these conditions. This clock dictates how much time a player gets to make all his moves during the game. The clock can either continuously lose time, or gain a certain amount of seconds back after every completed move. The most common game clocks are 1, 3 or 10 minutes. The object of each player is to put the opponent into a checkmate position, where the opponents king can't flee a potential capture. This is achieved, when the opponent can't capture the attacking piece, can't move his king to safety and also can't block a direct attack by moving a piece between his king and the attacking piece. Furthermore, a game can also end, when a player resigns the game or when a players clock runs out, leading to a forced resignation of the game. Imagining the opposing player as a hard to predict entity, reacting to every action taken by a player, chess becomes in its essence very similar to urban planning. Just as in the game of chess, urban design

has to evaluate the existing conditions before every decision. Considering risks and chances, taking action, evaluating the reaction of the environment and planning further action in an endless cycle. This concept reminds of the cone of possibility, where further action is fairly predictable. However, the further ahead into the future one looks, the less predictable the future gets, just as in chess. In this analogy, unpredictable moves by the opponent become black swan events - unforeseeable happenings that have a major impact on the situation.

FIGHTING UNITS

At the beginning of the game, each player has 16 pieces at his disposal: 8 pawns, 2 knights, 2 bishops, 2 rooks, a queen and a king, who has to be protected. The movement patterns and possibilities vary depending on the pieces. The knights are special in terms of movement. They are the only pieces who can jump over their own pieces. The different movement patterns of pieces create different tactical advantages and disadvantages for every piece. Different pieces also have different values creating a sense of hierarchy. These values don't influence the game directly, but offer a guideline when calculating the risk of a move or if sacrificing a piece for another is worth it. The lowest value has the pawn. His value is 1. The pawn can only move one square forward. An exception is the opening move, where he can move forward two squares. Capturing a piece with a pawn has to happen when the pawn can move one square forward diagonally. In case an opposing pawn moves forward two squares up to the same height as a pawn, en passant is possible whereby the pawn can capture him by pasing the pawn. A bishop has a value of 3. He can move diagonally as many squares as he wants. This movement pattern limits the bishop to the squares of one color. The knight, just as the bishop, owns a value of 3. As already meantioned, the knight is the only piece, which can jump over his own pieces. The knights movement happens in an L-shaped form whereby he moves two squares in one direction and one in a 90 degrees angle to the chosen direction. The rook owns a value of 5. His movement can happen in horizontal and vertical direction as far as needed. The rook can also be involved in a castle if the necessary condi-

tions are given. The queen is the most valuable piece with her value being 9. She can move in any direction as far as she wants, but is limited by other pieces standing in the way just as all the other pieces except for the knight. The king does not hold a value. His value is zero and infinite at the same time, since putting him in checkmate ends the game. he can move one square in any direction. He can also castle with a rook as already mentioned. The rules of the game prohibit for both kings to stand on two touching squares, since that would evidently lead to a capture with the next move. The king also takes a figurative role. If he is tipped over, a player resigns the game and the other player wins the game. Calculating the difference in points of the lost pieces is utilized to visualize the momentary standings of the game. Returning to the comparison between chess and urban planning, the analogy to fighting units is found in the different actors. Different situations in urban design involve different actors. This means, that unlike in chess, the pieces in urban design change from situation to situation and so do values of different actors. However, evaluating singular situations, actors can be given a fixed value by comparing the influence they have on one another. This means that in some scenarios, financial actors have a bigger influence than public ones. Meanwhile, in different situations, this power structure is inverted. The fighting units of chess can be found again in urban design in a more complex and dynamic way.

TACTICAL ENGAGEMENTS

There are about 10¹⁶ possible chess situations. In chess theory, the game is most often split into three parts - the opening, the middle game and the endgame. The opening is the theoretically most explored part of the game with their, in comparison, high predictability. Many opening sequences, such as the Queen's Gambit, have a specific name. With the offensive and defensive implications of each move, the goal of these openings focuses on things such as: development of the position, king's safety, control of the center of the board and piece coordination. These positional developments can't be looked at as attack or defense, but equally neither and both at the same time. Openings are about positioning one's pieces to increase

the chance of being victorious. Neither attack nor defense and somehow the preparation for both at the same time. After the positions are developed and the kings are safe, the middle game begins. It lasts until only a few pieces are left.- However, there are no clear lines between those three parts. The theory on the middle game is way less developed than the opening or the endgame. Its nature of being way less predictable makes it unique in every game. Memorization of patterns as in the opening is not possible. There are also too many pieces left compared to the endgame. Reuben Fine identifies three factors in the middle game: king's safety, force and mobility. All these factors focus on the power struggle between the two players to have the upper hand for when the game goes into its final stages. The literature on the endgame is just as vast as the one on openings. It starts with only a few pieces left and focuses on different patterns of checkmates, who is favoured in a certain situation. The endgame is usually classified by the remaining pieces on the board. During the entire duration of the game, the concept of actio-reactio is relevant. No moves can be made without evaluating the opponents last moves and also trying to predict his next moves. Every action by the opponent provokes a reaction and vice versa. None of the stages of a game of chess are for certain. A mistake at any stage of the game can be detrimental. An early checkmate can render all the preparation for an endgame useless. This means carefulness just as much as a certain amount of urgency needs to be employed when developing one's position. There is also the possibility of the game ending in a draw. This happens, when the king is on a safe square, but can't move to any other square when there are no other pieces left for the defending player. It is also possible that two players agree on a draw. in this situation, no one comes out as victorious.

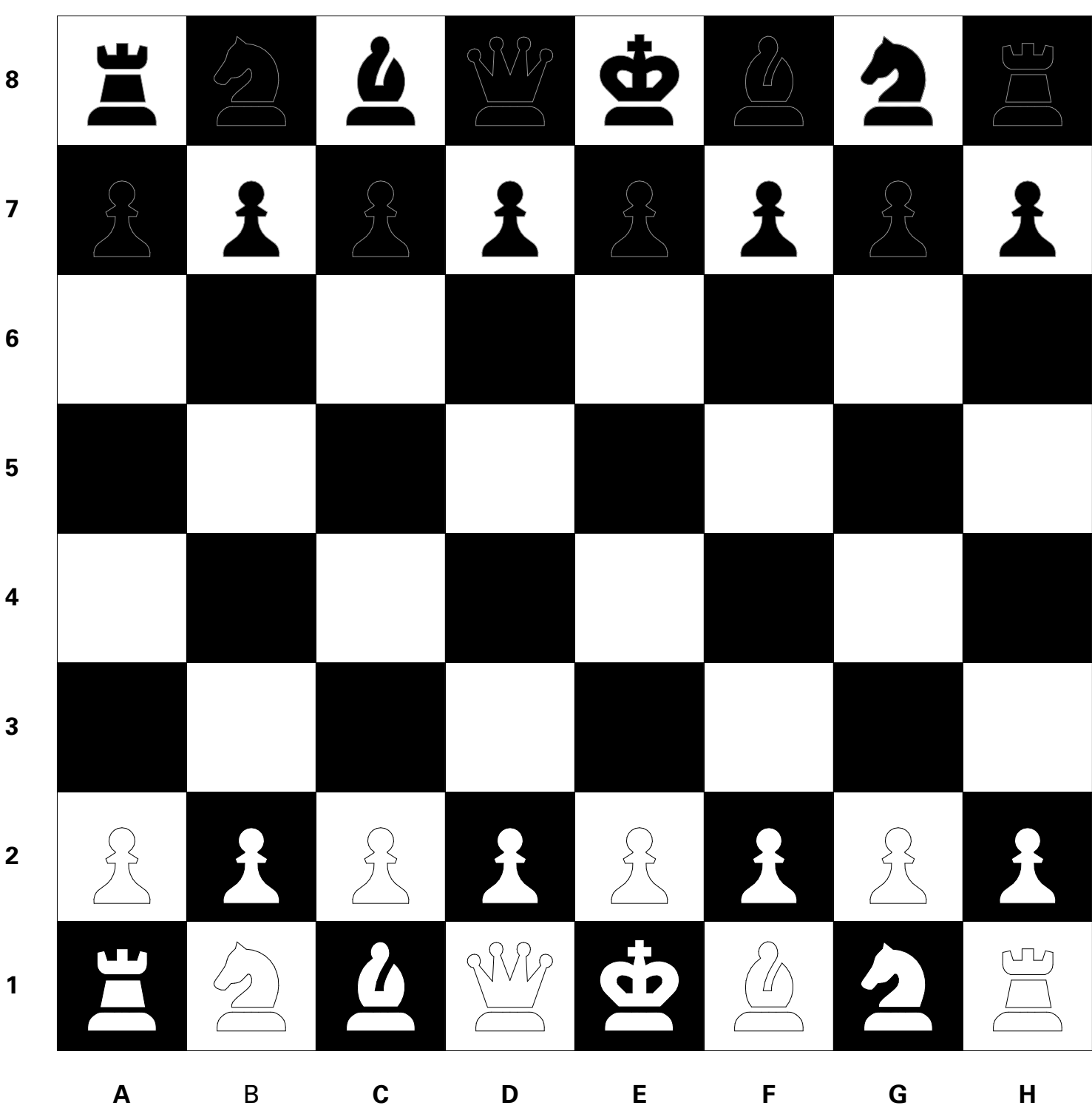
COMMUNICATIONS

The pieces on a chess board act independently from each other as single units. Each move has to evaluate the position of every other piece on the board. In certain moments it makes more sense to move a certain piece to increase one's chances of winning. In others, it might ruin the entire game by creating a weakness in defense. So even though each piece acts individu-

ally, the holistic view on the position of all the pieces is essential to choose the best move possible. The pieces have to act as a unit to achieve a players goal - to keep one's own king safe and put the other player in a checkmate position. This communication between pieces can materialize itself in different forms. The most simple form of communication is the overall position a player holds with his pieces. The momentary power dynamics in the game of chess can be evaluated by the pieces lost and also by how the remaining pieces are placed on the board in relation to the opponents position. Is the defensive position good? How much pressure is put on the opponents pieces? What are the potential moves one can make? What kind of moves are possible for the opponent? All these questions flow into the evaluation of ones position. Another form of communication is sacrificing. Sacrificing a piece can be necessary to save the king or to provoke the opponent to make a thoughtless move and capitalize from a lucrative piece swap. Decoys are also a form of communication between pieces. Through the inclusion of multiple pieces in a planned move, the opponent can be forced to sacrifice valuable material to save himself from being put in checkmate through indirect attacks facilitated by communication between multiple pieces. Just as in chess, urban design requires communication between the different actors. They can be looked at one by one, but to understand a situation and create the best possible outcome, the understanding of their interplay between one another is essential. Utilizing different levers, such as financial, ecological and political ones, can create more wholistic solutions and better outcomes. To utilize these however, understanding the interplay between different playser is necessary.

CONCLUSION

Chess is a strategic 1-on-1 game based on the concept of actio-reactio. Every action creates inevitably a reaction. After every move, the situation has to be reevaluated. Drawing the analogy between chess and urban design, one question remains - undoubtedly the most central one: *Who is the king? Who or what is the central figure in urban design?*



HISTORICAL PERIOD

Its first predecessor was played 1500 years ago in India. It was taken up by the Muslim world and subsequently spread into Europe in the 14th/15th century.

PROTAGONISTS

The players face each other 1-on-1. Each player controls one set of pieces throughout the game; either black or white.

PIECES

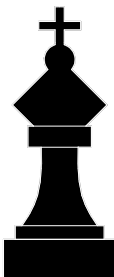
Black and white are both made up of the same number of pieces: 8 pawns, 2 bishops, 2 knights, 2 rooks, 1 queen and 1 king. Each unit occupies one square and no stacking is allowed. Through promotion, a pawn can be promoted to become a different piece.

BOARD

The board is a 8 by 8 grid of 64 squares. The board is checkered with black and white squares. To begin the game, the pieces start on opposing sites.

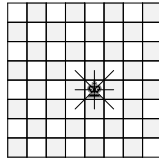
MOVEMENT

Taking alternative turns, the players move one piece at a time. Which piece gets moved is up to the players themselves. The pieces have different patterns of movement. Hence, the move depends on the moved piece.



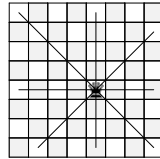
KING

Value: 7
Feature: can't be captured
Moves:



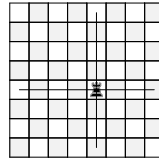
QUEEN

Value: 9
Feature: -
Moves:



ROOK

Value: 5
Feature: -
Moves:

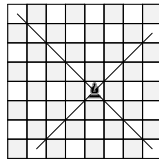


CASTLING:

So a move in chess. It consists of moving the king two squares toward a rook on the same rank and then moving the rook to the square that the king passed over. Castling is permitted only if neither the king nor the rook has previously moved, the squares between the king and the rook are empty, and the king does not leave, cross, enter, or finish on a square attacked by an enemy piece. Castling is the only move in chess in which two pieces are moved at once.

BISHOP

Value: 3
Feature: -
Moves:



KNIGHT

Value: 3
Feature: can jump over figures
Moves:



EN PASSANT:

Describe the concept in terms of an enemy piece on the same rank and an adjacent file that has just made an initial two-square advance. The capturing piece moves to the square that the enemy piece passed over, as if the enemy piece had advanced only one square.

PAWN

Value: 1
Feature: captures diagonally
Moves:



COMBAT

Each side is allowed to make one move per turn. Which piece gets moved, is up to the player who's turn it is. With each move, a player can either move to an open square or capture an opposing piece, taking it out of the game. If a player is put into a check position, where his king is directly attacked, he can either capture the attacking piece, shield his king by moving a piece between the king and the attacking piece or move his king out of harms

way. Pieces vary in value with the pawn being the weakest piece and the queen the strongest. The king does not hold a value, he can also not be captured.

OTHER FACTORS

Most pieces can't jump over other pieces. This means they are limited by the range of movement by other pieces. Often times, a clock with a set time is set at the beginning of the game. This clock shows the remaining thinking time during the entire game for the player concerned. The clock can either continuously count down, or gain a certain amount of time back, when a move is made and the opponents clock starts ticking.

VICTORY CONDITIONS

The aim of the game is to put the opponent into a checkmate position. A checkmate is achieved, when the king is directly attacked and can't escape, the attacking piece can't be captured and no piece can be moved between the attacking piece and the king. The game ends, when such a position is reached by either player or a player forfeits the game. Should a clock be utilized, the running out of the clock can also end the game.

REFERENCES

Everyone who taught me the game of Chess.