# Krakout Analysis

Krakout is a breakout-pong genre game released to commodore 64 in 1987. Basically the aim is to clear the screen of bricks. Whilst doing this the bricks will drop power-ups which will give advantages to the player, such as enlarging the bat size and others to be explained in more detail further down. The game is comparability more appealing because of its layout being against the norm of verticality where 4:3 aspect ratio of the commodore screen allows for a deeper arena horizontaly. Krakout improves upon the genres previous entries which make it more appealing to a certain point.
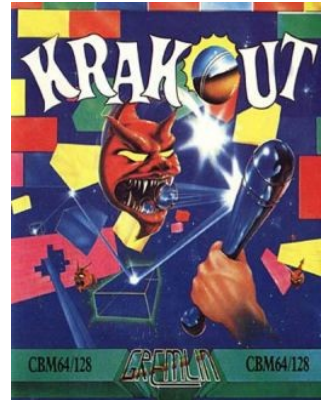

Main Gameplay Loop:

The gameplay loop consists of hitting a ball to destroy brick though hitting might be a loose term as we in reality deflect the ball into the direction we see fit. As stated before the main aim is to destroy the bricks that are in the arena and overall score the highest score possible.

Game Screen And UI:

Game Screen is fairly simple as the essential data are labels which are at the top of the screen. On the left top of the screen there is the current player score and on the very right side is the level number just left to that is the high-score. Between the current and high-score there exists the number of lives left which is shown by the bats;
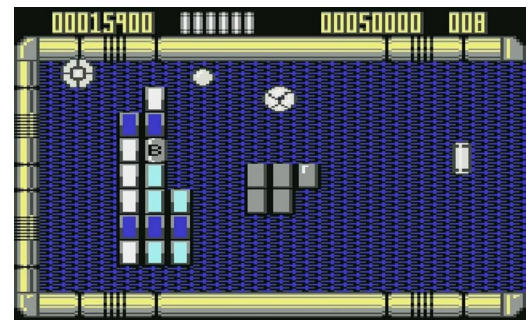
Below the bar at the top there exists the borders of the arena where we bounce the ball and move the bat. Inside there also exists the bricks that we have to destroy. One great quality of life improvement involving the game screen is that the base of the bat can be selected as either left or right depending on preference.
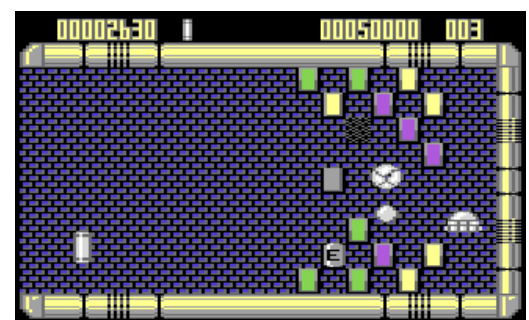
Bricks, Their Colours and Power-ups:

Shape wise bricks are almost always the same yet their colours differ telling the player what to expect deducting from their base colours. Even tough the colour scheme were not same across all releases codes can be noted as:

- if the brick is coloured it will be one hit to destroy.

- if the brick is grey, metal coloured it will be a multiple hit brick.

- if a brick is hit and a letter appears on it than its a power up, the letter that appears defines which power up it is.

	Bomb	destroys surrounding blocks
	Double	second bat
	Expand	bigger bat
	Glue	ball sticks to the bat
	Missile	bat can release a missile
	Shield	wall behind the bat
	Twice	doubles the points
	eXtra Life	gives an extra life
		slows down the ball

Table 1: Power-ups table.

Enemies-Aliens:

There exists non-brick elements in the game map where one can consider them enemies but rather than attack the player or the bat directly they get hit and deflect or affect the ball in a certain way. Each of these aliens or elements grant a certain bonus point to the player.

	Astronaut	harmless
	Bee hive	lets loose some bees
	Bee	Makes the bat stick
	Cannibal	eats the ball
	Cannibal	during digestion...
	Lightning	strikes through stones after hit of ball
	Bonus ship	when it hits the bat you get 10.000 points, a protective wall, transformation to stone or reduction of stones
	Egg	damages stones when touched
	Exit	allows level jump
	Time Out	all aliens stay where they are for approx. 30 seconds
	Twin Ball	hitting this with a ball activates a second ball

Table 2: Aliens and other elements.

Difficulty:

Very similar to other entries in the genre the basic difficulty increase other than changing map and brick layout exists in the way that, as the ball bounces it gets faster. As the ball gets faster it covers more ground per frame which means as long as the ball is in the game the player must be reacting to it accordingly quicker requiring faster reaction times per bounce.
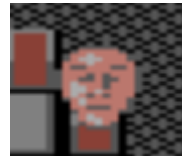
One original way to increase difficulty is that there be red-faced-head aliens that spawn towards the last bricks of the game. These red-faced-head aliens will scroll vertically moving up and down. These aliens will move over bricks as they will not be affected or bounce of bricks. If hit they will grant a bonus point to the player but will deflect the ball in a random direction. Once spawned they will keep spawning one instance at a time.

Musical Score:

The music is very upbeat and so to say happy. Its quite catchy and has a quick tempo that help the feeling get booster with an exiting and happy music. The music genre is very fitting to the 1980's sounds and music so one can claim that musical score fits the time period very well and represents it well.

Improvement That Sets this Entry Apart:

The improvement this entry brings that really sets this from the other entries is the horizontal layout. The horizontal layout allows for more deeper and thinner map. This more deeper and thinner map allows for the player to be more relaxed compared to other entries which will allow the player to experience joy more than other tries at the genre because the anxiety and effort to react to the ball gets reduced. In previous entries the standard was vertical layout which in commodore terms means using the 4:3 screens' height, reducing space and depth from the map layout. Yet in Krakout the 4:3 aspect ratio is used cleverly as the map is horizontal allowing for a longer map which means less frequently returning ball which also allows the player to bounce the ball behind the bricks to let it go loose which is an advantageous and rewarding tactic.