



## 20 Squares Help Contents: Version 1.0s

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**Version Change Log:**

Version 1.0s -- Initial Release, August 1995.

## Prolog . . .

Note: I did not 'make up' this story line. Basically this prolog follows a small, but exciting, portion of the ancient legend of Setna Khaemwese's search for the sacred scroll of Thoth! The original legend is a story within a story and richly beautiful and interesting. In this story, Setna is forced to play Neferkaptah's mummy (behind his golden death mask) for the sacred scroll. It is likely that the game they played was Senet not 20-Squares, but 20-Squares will do nicely as a substitute. As Setna loses each game in the tournament of four games, he sinks further and further into the sands, eventually almost disappearing to die buried ALIVE! Luckily, for him, his brother Anhureraue, bringing the powerful amulets of 'Ptah' . . .

BUT I'm telling too much of the story! If you want to find out about Setna, Neferkaptah, the giant snake, the scorpions, the powerful spells of Thoth's scroll, a women who was surely more seductive than Cleopatra, etc., you'll have to read the ancient stories. See the Geraldine Harris reference in the 'Credits' section for a good, and very readable, source. There are some absolutely first-rate myths and legends from ancient Egypt -- you'll really enjoy them.



Found! After years of careful and painful research, digging up blind alleys, and banging your head at dead-ends, you've located the hidden tomb of Neferkaptah; the legendary final resting place of the sacred scroll of Thoth. Now, in the streaming moon light, the tomb door beckons -- the same door that, according to legend, the great Prince Setna Khaemwese opened in Pharaoh Ramses-II time in search of the scroll. Around the door, engraved in stone, are images of Neferkaptah's great struggle to free the scroll from its watery tomb at the bottom on the Nile, his fight with the great serpent and scorpions, the tragic loss of his wife and child, and his sad end as Thoth, through Ammon-Ra, took vengeance on him for saying the sacred spells and gaining the ultimate magic powers.

Now the scroll and its powers will be yours!

Drunk with dreams of power, you give neither Neferkaptah's fate, nor Setna Khaemwese's harrowing escape from the scroll's powers, a second thought as you force the tomb door open.

Whoosh!

The tomb gasps, breaths, and dusky air, trapped for centuries, is exhaled from the opening. Carefully, cautiously, you make your way down the steps and the long, narrow, passage-way deep into the tomb. Standing at the threshold, your light pierces the darkness to reveal splendid furnishings and treasures, untouched for thousands of years, giving testament to Neferkaptah's wealth and stature. Gold and silver, beautiful wood work, precious inlays, delicate glass and calcite, all shimmer and sparkle as you sweep your light across the room in search of . . .

It's here! At last, long last, you find it!

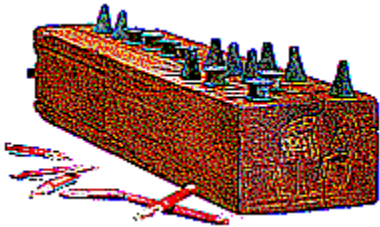
There on the table, gleaming in your light beam, and strangely translucent, lie the spells of ultimate power -- the sacred scroll of Thoth. Ignoring the wealth of treasure around you, and stepping forward, you carefully place the scroll into your pack and turn to leave . . .

BLINDING BRIGHTNESS!!! . . . Intense PAIN!!! . . . then utter blackness.

When you gain consciousness, you find yourself lying face-up on the floor of the tomb. Hovering over you, glowing eerily, the golden death-mask of Neferkaptah glares down at you.

Just a hunch, but you might be in trouble here.

## What is 20-Squares?



An ancient 20 squares board, and assorted casting sticks, dating from the 18th dynasty. The playing pieces are blue faience\*.

Board games were immensely popular game in ancient Egypt -- two in particular: Senet\*\* (sometimes called 30-squares) and a game we can only refer to as 'The twenty squares game'. The name of this 2nd game is lost in the past, although earlier in this century, due to a misunderstanding, Egyptologists thought it to be called 'Tjau' (which means 'robbers').

20-Squares is often found on the reverse side of the ancient Senet boards and both games used the same pieces, although they are really quite different games. There is strong evidence that 20-Squares is not originally of Egyptian origin but instead 'invaded' Egypt from Assyria. It is most likely related to the 'Royal game of Ur' and may in fact be the same game (there are similarities in the board and board markings). In any case, 20-Squares became a distinctively Egyptian game and extremely popular in ancient Egypt from the period of around 3000 B.C to 400 A.D.

If 20-Squares is a form of the 'Royal game of Ur', it may pre-date even Senet by 300 or so years. When you play 20-Squares, you are playing what is arguably the very oldest board game -- certainly older than the pyramids themselves by at least 500 years.

The game was played on a board of, naturally, 20 squares; the object being to get one's pieces on the board, then in a 'dog-leg' pattern around and down the central row of squares, and finally off again at the far end. The game requires strategy in the face of whimsical chance -- the 'chance' coming from 'casting sticks', used as the 'dice' in older times, or in latter times, perhaps from 'knuckle bones'. The most common playing pieces were 5 cones shaped pieces pitted against 5 reel shaped pieces (These pieces were called 'ibau' which means 'dancers' in Egyptian).

20-Squares was played in Egypt for more than 3000 years. Now it is here again in the present, re-created through the magic of electrons and phosphorus, for you to play.

Welcome to the game of the ancients -- Pharaohs and commoners alike!



When Howard Carter open Tutankhamun's tomb he found four Senet boards -- two of which were jumbled up and scattered, along with many other articles, by thieves in the distant past. One of these Senet boards is shown (circled), just as it was found, at left (looks just like my son's room ; -)). On the other side of this board (hidden from our view in this picture) is, you guessed it, a 20-Squares board. Note: Some of the 'Reel' and 'Cone' playing pieces were never found and it is assumed that they were made of silver and gold and were thus were

prime targets for thieves.

\*faience: Egyptian faience is a composite material of ground quartz with a colored, alkaline glaze. It one of the most characteristic materials of ancient Egypt. See "The Complete Tutankhamun", p. 200, for more information.

\*\*Senet: 20-Squares (v1.0r and v1.0s) is the 2nd in a series of ancient Egyptian games for the Windows environment. The first was Senet (v1.0r and v1.0s). If you like 20-Squares, or are interested in ancient Egypt, you should try Senet also. Senet (sometimes known as 30-Squares) was the most important board game of ancient Egypt and took on even religious over-tones; becoming a representation of the soul's journey through the under-world and eventual rest in the 'field of reeds' in the cosmic west.

Games like Senet and 20-Squares were very important in Egyptian life. Senet even appears in one of the creation legends: Thoth invented Senet as a way to help the poor Goddess Nut who had been cursed by Ra-Atum, even though she was pregnant with Geb's children, so that she was unable to give birth on any day of the year (which at that time as 360). Thoth challenged the Gods to games of Senet, with time as the prize, and, winning, was able to add 5 extra days to the year (which were not so cursed). Nut was then able to have her children (Osiris, Haroeris, Seth, Isis, and Nephthys) on one of the 5 extra days. Thus even the existence of the Gods (the nine gods that made up the Ennead) was a consequence of a board game and Thoth's skill in playing it!

## How do you play the game?

20-Squares is a simple game with both strategy and chance. To learn the game, you need to know some things about the playing equipment (the board, the pieces, etc.) and something about the rules of the game.

These topics are discussed in some detail in the following two sections. You can learn about the equipment, if you want to, right now by clicking on the jump text below:

### [The Equipment . . .](#)

The rules are quite simple. You can explore the rules of the game by clicking on the jump text below (I hate reading rules too, but you might want to read them just once).

*Note: Actually, this computerized 20-Squares version automatically enforces all the rules, so it's really not necessary to memorize them; you just need to be generally familiar with them so that you can understand why the game does what it does.*

### [What are the rules?](#)

When you start a game, the reel and cone 'dancers' sit along the sidelines on the race track. You move a piece on the board by 'dragging and dropping' it. Just 'click' on the piece you want to move, and holding the mouse button down, 'drag' it where you want to move it. Because the computer knows exactly where the piece you are moving can move, you really don't have to drag it very far -- the computer will complete your move for you. (I realize that you are perfectly capable of counting the proper number of squares to move, but children may not be -- and 20-Squares is a game for kids too). Actually, if you want to save time, you will find that simply clicking on the piece is enough to activate the 'drag and drop' logic and allow the computer to complete the move for you.

20-Squares knows which of your pieces can be move at any given time and will 'inactivate' (in other words, freeze in-place) any of your pieces that cannot be moved. So if you find yourself trying to move a piece, but the computer simply doesn't respond to your efforts, check out the situation. You'll invariably find that the piece you are trying to move cannot be moved according to 20-Squares' rules. By the same token, 20-Squares knows when you have no move available to you and in this case, according to the rules, the turn passes to your opponent (unless, of course you, have extra turns coming).

When a piece lands exactly on the leftmost central square (square 16), it is able to move off the board and will do so automatically.

Remember that who moves first in a game is that person who throws a 4 or 6 first. This means that deciding this can be can be kind of frustrating. To eliminate this frustration, anytime a new game begins, 20-Squares will 'Demon-Cast' until someone, Reels or Cones, is able to move a piece on the board. By Demon-Cast we mean an automated way (entirely fair, by the way) of determining the next mover (The term Demon Cast is taken from the term 'Demon'-Dialer, a tool hackers use to search quickly and automatically for access numbers into networks).

Each player must throw a 4 or a 6 before he or she can enter the first piece on the board. This can be frustrating because one player can pull ahead dramatically while the other player sits on the sidelines and tries to throw those 'magic' numbers. As soon as the first piece is entered though, there are no more barriers to entry for that side (reels or cones) and any throw can bring a piece onto the board.

Remember that you send your opponent's piece off the board if you are able to land on his square with a move -- you'll like this part (as long as you are the one doing the 'bumping' rather than the victim being 'bumped')

Get all of your pieces through the race course and onto square 16 (the leftmost central square) before your opponent, and you are the winner! The average 20-Squares game will only take 5 to 8 minutes, so it's not a long process at all. Make sure you run the 'Tutorial' menu option if any of this confuses you. Don't be afraid to experiment -- 20-Squares isn't breakable (at least its not supposed to be).

I hope you enjoy your electronic 20-Squares game. It may not have the 'pizzazz' of a modern arcade game nor the intellectual challenge of a strategy game like 'Chess', BUT 20-Squares WAS played and enjoyed for 3000 years by millions of Egyptians -- there must be something to it.



## What do the items on the menu do?

The menu items of 20-Squares are very simple. The top-level menu consists of only three real menu items. See below::

**Options Help Exit      Go ahead and make your move Reels**

'Options' allow you to control the game:

Help has three sub-menu options: 'Tutorial' lets you re-run the tutorial on 20-Squares whenever you wish, 'How do you play' lets you access the help file you're reading now ,and 'About' lets you view the program copyright statements.

'Exit', of course, lets you leave the game. 'Exit' is the 'normal' method of leaving the game -- two others, the space bar and the 'Esc' key, act as Boss Keys for emergency shutdown of the game. The area on the menu to the right of the 'Exit' item is the game feedback area. This area offers instructions, comments, and advice as the game progresses.

The Options sub-menu items are as below:

Welc	
<u>O</u> ptions	<u>H</u> elp <u>E</u> xit
✓ <u>G</u> ame sounds?	
✓ <u>M</u> IDI background music?	
✓ <u>M</u> ummy facts?	
<u>P</u> lay the mummy?	
<u>S</u> witchSides?	
<u>N</u> ew game?	

The first section of this sub-menu allows you to control some basic options of the game -- do you want game sounds?, do you want background music?, and do you want MummyFacts, from time to time, to pop-up in the lower right of the screen. MummyFacts are interesting facts about ancient Egypt that will pop-up every couple of minutes or so if this option is checked.

The 2nd section of this sub-menu lets you play the game on manual mode (play a friend, or play against yourself) or, more commonly, against the computer. If 'Play the Mummy' is checked, you are playing against the computer. The computer always takes the current turn and piece type if this option is checked during a game in progress. In other words, if it's Cone's turn to move at the time this option is checked, then the computer will play the Cones and vice versa (note: Upon New-Game, or startup, Cones have the first turn, but after a game has been won, the loser has the first turn). You can always click the 'SwitchSides' option anytime to turn the tables on the computer and play the other side -- of course the 'SwitchSides' option is only active when your playing against the mummy rather than yourself or a friend.

Clicking the 'New game?' sub-menu option immediately resets the board and starts a new game.

**Note: WAV sound file vs. MIDI sound file volume can be a problem. I've tried to set the relative volumes between the MIDI files and the WAV files at a good spot. Because of the maddening difference between the many sound cards out in the world, this might not be right for everyone. If**

**you find your Music too loud compared to the Game Sounds, or the Game Sounds too loud compared to the music, look for and use your 'Mixer' application ( it came with your sound card for sure), before playing or even during play of 20-Squares, to adjust the relative volumes.**

## **The 20SQR.INI file.**

20-Squares uses the information in the 20SQR.INI file in the Windows directory to record information for start-up. This is the only file that 20-Squares creates automatically on your system. If you ever want to delete 20-Squares from your system, you should also delete 20SQR.INI in addition to the files in your 20SQR directory.

Of course, I'd think a little before deleting Neferkaptah's home and the resting place of the sacred scroll of Thoth from my hard disk. You just might have a 'little explaining to do' to some pretty powerful entities . . . ; - )

## **The 'Boss' Keys**

I am sensitive to the fact that you might want to play 20-Squares in private at times.

To that end if you hit the 'Space Bar' or the 'Esc' anytime during play, 20-Squares will instantly end and clear itself from the screen.

## **How to contact the author.**

If you have comments or suggestions, you can contact me by:

**Internet: 74212.1123@compuserve.com**

or

**CompuServe E-Mail: 74212,1123**

or by letter to:

**P. S. Neeley  
248 W. 3325 N.  
North Ogden, UT 84414**

## Credits (or where did all this stuff come from anyway?).



20-Squares was written in Microsoft's Visual Basic for Windows 3.0.

A very special thanks to Professor John Tait, the Edwards Professor of Egyptology at the Dept. of Egyptology, University College London, and the world's authority on 20-Squares and other Egyptian games. Professor Tait, though very busy, kindly took the time to help a 'crazy American' produce an authentic and accurate game.

Thanks also to Karin Sowada for her continuing support.

In addition much background information, the raw materials for the images, and all of the MummyFacts, came from the following sources (all 'mined' at the local Library):

"SENET -- Play Games with the Pharaohs" by William Bown, *New Scientist*, December 1990.

"Intelligence Games" by Franco Agostini and Nicola Alberto DeCarlo.

"The World of GAMES -- Their origin, How to play them, and How to make them" by Jack Botermans et al, *Facts On File*, New York.

"The Treasures of Tutankhamun" by I. E. S. Edwards, *The Viking Press*, New York.

"The Complete Tutankhamun" by Nicholas Reeves. *Thames and Hudson* 1990.

"Into the Mummy's Tomb" by Nicholas Reeves. *Madison Press Books*, 1992.

"Ramses II: The Pharaoh and His Time", *Exhibition Catalog*, *Brigham Young University*, 1986.

"Ancient Egyptians" by Pierre Miquel, *Librairie Hachette*, 1979.

"The Egyptians" by Anne Millard. *Silver Burdett Company*, 1985.

"Ancient Egypt" by Rosalie and Antony E. David. *Warwick Press*, 1984.

"Sacred Architecture" by A. T. Mann. *Element Inc.*, 1993.

"All Color Book of Egyptian Mythology" by Richard Patrick. *Octopus Books Ltd.*, 1972.

"Mummies -- Death and Life in Ancient Egypt" by James Hamilton-Paterson and Carol Andrews. *Penguin Books*, 1979.

"Fun with Hieroglyphs" by Catharine Roehrig, *The Metropolitan Museum of Art*, *Viking*, 1990.

"Mummies" by Susanne Lord, *The Trumpet Club*, 1991.

"Mummies, Tombs, and Treasure --- Secrets of Ancient Egypt" by Lila Perl, *Clarion Books*, 1987.

"Gods & Pharaohs from Egyptian Mythology" by Geraldine Harris, *The World Mythology*

Series, Peter Bedrick Books, 1993.

"The Age of God-Kings -- TimeFrame 3000-1500 B.C." ,Time-Life Books, 1987.

"Ancient Egypt" by Lionel Casson, Time-Life Books, 1965.

"The Egyptian Book Of The Dead -- The Book Of Going Forth By Day" translated by Raymond Faulkner, Chronicle Books, 1994.

"Letters from Ancient Egypt" by Edward Wente, Scholars Press, 1990.

In addition, Professor Tait noted that the following two references are very good and accessible to the general reader:

"The Tomb of Tutankhamen" by Howard Carter, Barrie and Jenkins, 1954 and later.

"Tutankhamen: Life and Death of a Pharaoh" by Christiane Desroche, Nobelcourt (numerous editions).

All these good people and books have been my 'teachers of things Egyptian' -- I have tried to learn well. Any errors are, of course, my own.

Beauty and Art were breathed into this game through superlative tools -- my Microtek-II HR scanner, Adobe Photoshop 3.0, Adobe Illustrator 4.0, Kai Power Tools 2.0, Andromeda series II filters, and Paint Shop Pro v3.0. Some extremely smart people made these tools to empower the 'artistically challenged' of the world (like me) to create something worthwhile in spite of 'handicaps'.

All of the icons used here (some of which were subsequently converted to BMP files) were created using IconMaster -- an application furnished with Visual Basic.

This Help file was written with the aid of Craig Villalon's shareware help authoring system -- VB Automatic Help Author v.1.32 .

A number of the game sounds in this game are greatly shortened and modified versions of sound files found on Interactive's "1000 of the World's Greatest Sound Effects" CD-ROM. The rest of the sounds were recorded using the Microsoft Windows Sound Recorder Applet and my trusty Radio Shack microphone.

Some of the background music clips are mixed and shortened WAV files from BeachWare Inc.'s Music Tracks CD.

Some of the background images are from the Corel Professional Photo CD 'Egypt'.

20SQR.MID, the Midi background music, is original music composed and produced especially for 20 Squares by, colleague and friend, Tom Shimek. Tom is an expert systems and data base analyst who, with his mind, toils deep in the vast and barren corporate 'salt mines' by day, so that he can have the means to pursue, with his heart, a talent for making beautiful music by night.

The knowledge and interest in Mathematics and programming is due to my father Pat's influence and the fine education I received from the many Math and Science teachers and professors who taught so very well (obligating a debt I can never repay).

The time to complete this programming project was largely 'stolen' during the late evening

and wee morning hours when more normal people would be asleep. However, inevitably, some of the time was donated by my wife, Barbara and my children, Jon, Melissa, Christie, Patrick, Nick, and James.

Some day they may come to understand that while other fathers were tinkering with the family car, mowing the lawn, doing woodwork in the garage, etc. -- tending to normal business -- their father, high in the dark castle tower, and bathed in the soft glow of the electron's fire, was practicing modern-day sorcery. For he was building something that would never really grow old and decay, that could be copied exactly many times with almost no effort, that could be used and enjoyed by many, many people at the same time, and that could be scattered on the electronic winds to the ends of the Earth. Yet, this something was made out of nothing but an idea, diagrams in the air, and glowing bits of phosphorus. Can there be anything more magic than that?



## The images -- what are they?

The images used in this game are as follows

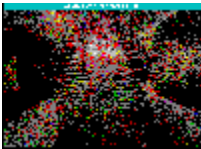


The scroll used in the 'splash screen' is not, of course, the sacred scroll of Thoth, but a replica of a small part of a section of 'The Papyrus of Ani' -- The Egyptian 'Book of the Dead'.

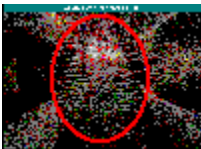
Note: In this portion, Thoth, the God of Wisdom and Writing, is pronouncing judgment in the 'Weighing of the Heart'.

The section is entitled: "Thoth, judge of truth, to the Great Ennead which is in the presence of Osiris.

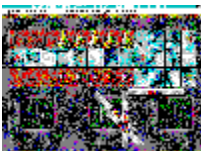
He is saying: "Hear this word of very truth. I have judged the heart of the deceased, and his soul stands as a witness for him. His deeds are righteous in the great balance, and no sin has been found in him. He did not diminish the offerings in the temples, he did not destroy what had been made, he did not go about with deceitful speech while he was on earth."



The 'Its Neferkaptah's mummy and he's real mad that you're trying to take the scroll' screen's background image is a shot, upward, of the ceiling of a temple at Edfu.



The golden mummy mask of Neferkaptah is really that of King Tutankhamen, made transparent, and back-lit.



The beautiful 'tiled' Thoth background of the game screen was created from a portion of a rock etching of Thoth which was the kaleidoscoped (is this a word?) using Andromeda's cMulti tool, Photoshop's gradient tool, and finally, Kai Power Tool's seamless welder.

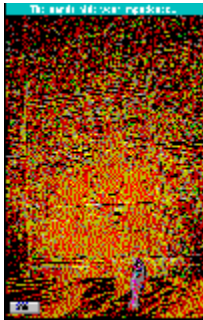
The playing pieces, the board, the casting sticks are not 'real' -- I made them from as many royal materials as I could and as accurately as possible. The board markings are the 'ankh' and 'nefer' signs, just as they appear on the only undamaged and complete of Tutankhamun's 20-Squares boards. The casting sticks have the 'Tutankhaten' cartouche, from the right outer arm of Tutankhamun's Golden Throne, centered on them.



The winner's celebration screen shows Tutankhamun's death mask, with the eyes lit up with lens flares behind a transparent, and faint, portion of the text of 'The Papyrus of Ani'.

Note: It was the words of the spells in the sacred scroll of Thoth that when recited worked great magic. One spell enchanted the whole Earth and allowed the spell bearer to understand the speech of the beasts of the earth, the fishes of the deep, and all living things. Another spell revealed the Sun, the Moon, and the stars in their true form, and the glory of the gods among them.

In this image, Neferkaptah warns 'beware of the Gods' because in the legend, Thoth complained to Ra, King of the Gods, and demanded justice for the theft of the scroll. As a consequence, Ra exacted terrible vengeance on Neferkaptah.



The 'buried alive in sand' screen image background is from the interior of a temple at Edfu.

Note: In the legend of Prince Setna Khaemwese's search for the scroll, as he lost each game to the mummy of Neferkaptah, he sank further and further into the sand. Had he not been rescued by his brother Anhurerau's return with the Amulets of Ptah, Setna would have been buried alive.



The 'farewell screen' is an image of Nefertari, as found in her tomb. The words below are found several times in the few surviving examples of letters of ancient Egypt. It is, to me, a beautiful and concise description of the human state, as accurate today as thousands of years ago.

Note: Many of these letters are full of the same mundane goings on as letters today, some however, show poignantly, that the ancient Egyptian were people full of love and hope.

Consider the words of the scribe Dhutmose, in Nubia, to his son, the scribe Butehamon:

"I am calling upon Horus of Kuban, Horus of Aniba, and Atum, the lord of the earth, to give you life, prosperity, and health, a long life-time, and a good ripe old age and to let Amon of the Thrones of the Two Lands, my good lord, bring me back alive from the wilds, the place where I am abandoned in this far-off land, and let me fill my embrace with you."



## What are the rules?

No rules for 20-Squares have survived on papyri or wall paintings. The situation is further complicated by the fact that Egyptian art showed people and objects only from their most typical view -- 'head-on' or profile -- this leaves few clues as to how the game was played in paintings of games in progress. The following are the rules of 20-Squares as given by W. J. Tait in a private communication, May 1995\*. Professor Tait is the Edwards Professor of Egyptology at the Dept. of Egyptology, University College London, and is a world authority on Senet, 20-Squares, and other Egyptian board games and equipment.

### The starting position . . .

All pieces start off the game squares: one player's pieces conveniently lined up along the top of the central race-track, the other player's pieces lined up along the bottom.

### How you win . . .

The object is to take all 5 pieces, in turn, off the board by landing them precisely on the left-most central square (the 16th square). Once successfully taken off, a piece plays no further part in the game.

### Taking turns . . .

The players throw once each alternately, and move a single piece by the appropriate number of squares. A move must be made, and made in full; if no move is possible, and no extra turns (throws of the casting sticks) have accrued, then the turn is forfeit (passes to the other player).

### Starting the game . . .

A player must throw a 4 or a 6 before being permitted to move his or her first piece of the game onto the board. After that, there is no barrier to entry for that player.

### Moving pieces . . .

Pieces may not move backwards, only forwards. Pieces may leap freely over each other.

### Bumping . . .

Only one piece may stand on any one square at any given time. A player may 'bump' an opponent's piece by moving one of his or her own onto the square occupied by the opponent. The opposing piece is then removed to the starting line-up, off the racing squares, and must begin its journey again. A player may not displace one of his or her own pieces in this way.

### Extra turns . . .

A player who throws a 6 gains an extra turn.

A player landing on one of the specially marked squares gains an extra turn.

There is no limit to the number of extra turns that may accrue due to a move, but a player must exhaust all accrued moves before the turn passes to the opponent (sorry, you cannot save accrued moves for a 'rainy day').

\*Note: Professor Tait notes that the above set of rules are a plausible, but not the only possible, set of rules. There may well have been variations in practice.



## The Equipment . . .

The equipment for 20-Squares is very simple:

There are 5 cone shaped pieces and 5 reel shaped pieces. The Egyptian words for these was 'ibau' which means 'dancers'. The game is a race between the Cones and the Reels.

								1	2	3	4
16	15	14	13	12	11	10	9	8	7	6	5
								1	2	3	4

The board that these pieces race around consists of 20 squares as above. The object being to race all of your pieces to land exactly on square 16. Notice that each side, Reels or Cones, has a 4 square private area (numbered 1 - 4 above) but then squares 5 -16 form the 'battle zone'.

								1	2	3	4
16	15	14	13	12	11	10	9	8	7	6	5
								1	2	3	4

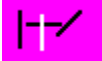
There are 5 special squares marked by either the 'ankh' or 'nefer' signs -- 4, 8, 12, and 16. If you land on one of these squares you gain an extra turn.

								1	2	3	4
16	15	14	13	12	11	10	9	8	7	6	5
								1	2	3	4

Each side starts with their pieces lined up off the race-track along the sidelines. Each then enters their pieces according to the throw of the 'dice' and races in a 'dog-leg' fashion to square 16 as above.

Four 'Casting Sticks' serve as 'dice'. You hold the sticks together (more likely roll the sticks nervously between your hands as you pray to lady luck), and drop them on the ground or table. Casting sticks had one side rounded and one side flat -- as if you had cut a straight section of tree branch down the middle long axis to make two half sticks. Each stick has a dark (dark brown) and a light (white ash) side (the dark side was the curved side, the light side the flat side). The number of whites that end up showing determine the number of squares you can move on the board. Thus you can have 1 through 4

whites allowing you to move 1 to 4 squares, respectively. But, if no whites show (in other words, all the sticks end-up dark side up) then you get to move 6 squares. The examples below show examples of each of the possibilities:



1 -- you can move one square.



2 -- you can move two squares.



3 -- you can move three squares



4 -- you can move four squares or enter a piece on the board at square 4 (you must throw a 4 or a 6 to enter a piece on the board)



6 -- you can move 6 squares or enter a piece on the board at square 6. You also get an extra turn -- Yeah!.

## MummyFacts? . . .

If the 'MummyFacts?' menu item is checked, every 2 or 3 minutes, interesting facts about ancient Egypt will appear at the lower right corner area of the game screen. All these 'facts' were mined from the references noted in the 'Credits' section of this help file. They only appear during a game, while waiting for someone to throw the casting sticks, and they will disappear as soon as the casting sticks are thrown. Stop and read them once in a while.

These facts are intended to educate as well as entertain -- few people really know much about ancient Egypt, beyond mummies and pyramids, even though the knowledge may be readily available at the local library. If you grow tired of this feature, simply un-check the 'MummyFacts?' menu item and they will no longer bother you.

Note: MummyFacts beginning with 'FROM A LETTER:' are quoted directly from Wente's "Letters from Ancient Egypt"; those beginning 'BD:' are quoted directly from "The Egyptian Book Of The Dead" as translated by Faulkner.



## You control the Dice . . . !

You actually have full control over the Casting Sticks. But we had to provide that capability for you. Let me explain:

20-Squares uses a random number generator to obtain 'random' throws of the casting sticks. Random number generators use a 'seed' number to get them started and then a complicated algorithm to generate a sequence of random numbers. These are often called 'pseudo-random' numbers because given the seed number, the same sequence of 'random' numbers will always be generated. Also, the algorithm eventually loops back on itself so that you'll start-over generating the same numbers in the same sequence again at some point. This is called the 'period' of the random number generating algorithm. A typical period may be in the 40,000 range, so you have to go through a lot of random numbers before you loop back on yourself.

Okay, sorry about the dry, overly complicated explanation above, but here's why we went through it:

20-Squares uses a random seed number. In other words, each time you start up 20-Squares, it uses a random seed number to 'seed' the algorithm, and thus you should never really notice the same sequence of throws -- unless you watch and correlate for a long, long time.

This means that the sequence of throws generated from 20-Squares is as random as possible.

Now I personally believe that one random number is as good as the next, but you may not. You may be uncomfortable with just accepting the next 'random' throw that 20-Squares generates as YOUR throw. After all, you are the thrower of the dice, right? 20-Squares has been programmed so that if you hold the mouse button down over the dice, they 'roll' in your hands (you'll be able to hear them being rolled if you have a sound card) for as long as you hold the mouse button down. All during this 'rolling' process, 20-Squares is going through the next, and the next, and the next, etc., etc., random numbers at the clip of 150 per second or more (depending on your processor). When you release the mouse button, 20-Squares uses the random number from wherever it stopped in the 'rolling' process as the throw amount.

Bottom line: You actually have as much control over the 'sticks' as you would in real life.

If you are blessed with ESP, or are just an extremely lucky person, you can really make a killing here because if you release at just the right millisecond you'll have the 6, or the 4, or whatever it was you wanted. So if you don't trust the 20-Squares program, or don't want to just accept the next random number 20-Squares happens upon, roll those 'sticks' before you throw.

## Tips, Tricks, and Trouble Shooting . . .

[I don't want to go through the 'Neferkaptah is not happy you're taking the scroll' prolog screen anymore . . .](#)

If you click on the prolog screen when it first comes up (or anytime really) you will quit the prolog and go right to the game.

[I don't want to wait 5 seconds for the 'farewell' screen to disappear . . .](#)

Sheesh! Its only 5 seconds! Okay, Okay. If you click on the 'farewell' screen it will immediately disappear and you will be out -- finished as it were.

[I can't get the MummyFacts to show up . . .](#)

First, make sure you have the MummyFacts menu option checked, otherwise you won't get any MummyFacts.

However, If you find that the MummyFacts menu option is 'grayed-out' then that's another matter. This means that 20-Squares could not find the MUMFACT2.TXT file that holds all of the MummyFacts. The most likely cause of this is that MUMFACT2.TXT is not in the working directory, and let me tell you from personal experience, it's very easy in Windows to get yourself mixed up as to what the working directory is. Here's how you make sure that 20-Squares is never mixed up about it.

1st: Activate the 20-Squares icon by clicking on it once from Program Manager (This will highlight its title).

2nd: Choose 'File|Properties' from the Program Manager menu and make sure the Properties box for the 20-Squares icon reads:

Command Line: 20SQR.exe

Working Directory: C:\20SQR (or whatever is your 20-Squares)

3rd: Make sure that MUMFACT2.TXT exists in the C:\20SQR directory.

Do these three things, and everything should work fine.

[I can't get any MIDI music to play . . .](#)

You have to have a sound card that supports MIDI 'Extended' format to get the music to play -- 99.9% of them do.

First, make sure you have the 'MIDI background music?' menu option checked, otherwise you won't get any MIDI music.

Next, make sure it isn't a simple volume problem. Turn-up the volume on the speakers and see if that helps at all.

Didn't help? Okay then maybe the relative sound volumes of the WAV and MIDI files are 'out of whack'. I've tried to set the relative volumes between the MIDI file and the WAV files at a good spot. Because of the maddening difference between the many sound cards out in the world, this might not be right for everyone. Look for and adjust your 'Mixer' application ( it came with your sound card for sure), to adjust the relative volume of MIDI files upward a little to see if that helps.

Still not working? Dang! This calls for drastic measures. I hate to inform you of this, BUT, you are most likely suffering from what the MIDI people call 'The MIDI problem from Hell!' (their words, not mine). Not to worry though -- here's what to do:

Since 20SQR.MID is in extended MIDI format you have to make sure that channels 1 - 10 are active. Go to the Windows Control Panel, MIDI mapper section, and choose edit on your MIDI mapper. Then make sure that channels 1 through 10 are active. If one of these channels (that hold the extended MIDI sequences) is not active, then you are essentially mapping that sequence into 'oblivion'.

## **Please consider registering . . .**

Please consider registering. 20-Squares is not freeware, it's shareware; even though it is not 'hobbled' in any way, nor are there pesky 'nag' screens to bother you.

**If you want to continue to legally use this software, you must register this program after 21 days. To register, send \$10 to:**

**P. S. Neeley  
248 W. 3325 N.  
North Ogden, UT 84414**

The shareware version of 20-Squares was meant to be distributed on the 'electronic winds' of the Internet, BBSs, on-line services, etc., and so it was important to keep the file sizes as small as possible. In a practical sense, you do this by cutting back on color depth (16 color images instead of 256 color images) and eliminating as many game sound files as possible (.WAV files are large and not very compressible). I hated to do this but it was the only way.

However, extra bytes add nothing to the weight of a diskette.

I will send registered users of 20-Squares the 256 color, registered version in the mail. The 16 color images you see in this shareware version are good, but the 256 color images of the registered version are breathtakingly beautiful. The registered version also features lots more sounds and many more MummyFacts.

**If you enjoy 20-Squares at all, or love things 'Egyptian', you'll want the registered version.**



