

Traditional Cosmological Symbolism in Ancient Board Games

Gaspar Pujol Nicolau

ADVERTIMENT. La consulta d'aquesta tesi queda condicionada a l'acceptació de les següents condicions d'ús: La difusió d'aquesta tesi per mitjà del servei TDX (www.tesisenxarxa.net) ha estat autoritzada pels titulars dels drets de propietat intel·lectual únicament per a usos privats emmarcats en activitats d'investigació i docència. No s'autoritza la seva reproducció amb finalitats de lucre ni la seva difusió i posada a disposició des d'un lloc aliè al servei TDX. No s'autoritza la presentació del seu contingut en una finestra o marc aliè a TDX (framing). Aquesta reserva de drets afecta tant al resum de presentació de la tesi com als seus continguts. En la utilització o cita de parts de la tesi és obligat indicar el nom de la persona autora.

ADVERTENCIA. La consulta de esta tesis queda condicionada a la aceptación de las siguientes condiciones de uso: La difusión de esta tesis por medio del servicio TDR (www.tesisenred.net) ha sido autorizada por los titulares de los derechos de propiedad intelectual únicamente para usos privados enmarcados en actividades de investigación y docencia. No se autoriza su reproducción con finalidades de lucro ni su difusión y puesta a disposición desde un sitio ajeno al servicio TDR. No se autoriza la presentación de su contenido en una ventana o marco ajeno a TDR (framing). Esta reserva de derechos afecta tanto al resumen de presentación de la tesis como a sus contenidos. En la utilización o cita de partes de la tesis es obligado indicar el nombre de la persona autora.

WARNING. On having consulted this thesis you're accepting the following use conditions: Spreading this thesis by the TDX (www.tesisenxarxa.net) service has been authorized by the titular of the intellectual property rights only for private uses placed in investigation and teaching activities. Reproduction with lucrative aims is not authorized neither its spreading and availability from a site foreign to the TDX service. Introducing its content in a window or frame foreign to the TDX service is not authorized (framing). This rights affect to the presentation summary of the thesis as well as to its contents. In the using or citation of parts of the thesis it's obliged to indicate the name of the author.

**TRADITIONAL COSMOLOGICAL SYMBOLISM
IN ANCIENT BOARD GAMES**

DOCTORAL THESIS

GASPAR PUJOL NICOLAU

BARCELONA, 2009

Director: **Dr. Josep Olives Puig**

Program: *“Doctorat en ciències humanes, socials i jurídiques”*

Department: **Humanitats**



TRADITIONAL COSMOLOGICAL SYMBOLISM IN ANCIENT BOARD GAMES

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	4
FOREWORD: GAMES AS A UNIVERSAL STRUCTURAL PATTERN.....	6
PART I THE SIMBOLIC STUDY OF ANCIENT BOARD GAMES.....	13
1. METHODOLOGICAL FRAME.....	14
1.1 PURPOSE, AIM AND CONTRIBUTION.....	14
1.2 STRUCTURE OF THE RESEARCH PROJECT.....	17
1.3 PRELIMINARY HYPOTHESES.....	19
1.4 BIBLIOGRAPHY & ICONIC SOURCES.....	19
2. LIMITING THE MATERIAL OBJECT.....	23
2.1 MAN AND PLAY.....	25
2.2 PLAY, GAME AND BOARD GAMES.....	29
2.3 ANTIQUITY AS MAIN SELECTION CRITERION.....	40
2.4 FUNCTIONAL GAME FAMILIES.....	43
2.4.1 <i>Path games</i>	50
2.4.2 <i>Calculation games</i>	51
2.4.3 <i>Spatial games</i>	52
3. BUILDING A THEORETICAL MODEL FOR ANCIENT BOARD GAMES	
ANALYSIS.....	56
3.1 SYMBOLS AND SYMBOLISM: ANALOGICAL THOUGHT.....	57
3.2 SYMBOLIC HERMENEUTICS & COMPARATIVE STUDIES.....	65
3.3 TRADITIONAL COSMOLOGICAL SYMBOLISM SEEN THROUGH BOARD GAMES.....	71
4. REFORMULATION OF THE HYPOTHESES.....	77

PART II KEY SYMBOLIC ELEMENTS IN ANCIENT BOARD GAMES	80
1. ON THE SYMBOLIC CONTENT OF GAMES.....	81
2. ANCIENT BOARD GAMES AS COSMOGRAMS	92
2.1 SYMBOLISM OF SPACE: GIVING SPACE A MEANING.....	94
2.2 GEOMETRICAL AND CARDINAL PATTERNS	105
2.2.1 <i>The point: center and axis</i>	108
2.1.1.1 Center as a goal or as being strategically relevant.....	111
2.1.1.2 Center is “sacred” or empty.....	116
2.1.1.3 Axis of symmetry	123
2.2.2 <i>The cross: cardinality and quartered division of space</i>	124
2.2.3 <i>The square: limits of game</i>	132
2.2.4 <i>The grid</i>	144
2.2.5 <i>Circles, cycles and spirals</i>	152
3. ANCIENT BOARD GAMES AS ANTHROPOGRAMS	164
3.1 PLAY AND MYTH.....	166
3.1.1 <i>The heroic challenge</i>	169
3.1.2 <i>Ethics, rules and cheating</i>	180
3.1.3 <i>Opponent as complementary</i>	187
3.1.4 <i>Some remarks about the playing pieces</i>	196
3.1.4.1 Verticality and horizontality.....	198
3.2 PLAYING AS A RITE	200
3.2.1 <i>Līlā, life as play</i>	202
3.2.2 <i>Spiritual ascension: the ultimate goal</i>	207
3.2.3 <i>Randomness: fate, fortune telling and oracles</i>	217
3.2.4 <i>Sacred & profane gambling</i>	227
4. CONCLUSIONS	234
5. FURTHER LINES OF RESEARCH.....	244
III BIBLIOGRAPHY.....	245

ACKNOWLEDGEMENTS

Before starting, I want to dedicate this research work to several people, who have influenced me and without whom I could not have ever finished it. A few lines of text would never be enough, but are the least I can do to thank them.

To my wife (at last!). You have seen me struggle with this research and with myself for too long. Thank you for your unconditional support and love. You always know how to take the best from me and to make it shine.

To my parents, sister, grandmother and close relatives. To you too, *jefe*, wherever you are (I hope you can read this). All that I am is thanks to you, and my debt with you is unpayable. Thank you for supporting my escape from Computer Engineering, because I finally found myself in Humanities. As you always say, citing Kahlil Gibran:

*Your children are not your children.
They are the sons and daughters of Life's longing for itself.
They come through you but not from you,
And though they are with you yet they belong not to you.
You may give them your love but not your thoughts,
For they have their own thoughts.
You may house their bodies but not their souls,
For their souls dwell in the house of tomorrow,
which you cannot visit, not even in your dreams.
You may strive to be like them,
but seek not to make them like you.
For life goes not backward nor tarries with yesterday.
You are the bows from which your children
as living arrows are sent forth.
The archer sees the mark upon the path of the infinite,
and He bends you with His might
that His arrows may go swift and far.
Let our bending in the archer's hand be for gladness;
For even as He loves the arrow that flies,
so He loves also the bow that is stable.*

To Dr. Josep Olives, director, teacher and master in all its possible senses. You have seen me grow in this University, physically, intellectually and spiritually. Thank you for your special attention, guidance and friendship.

To all my friends, scattered through Mallorca, Menorca, Barcelona and the rest of the world (you know who you are). You have also seen me both enjoy and suffer this research. Thank you for your games, laughs and beer. To you *Cymbrogi*, see you in Lórien!

To Viktor Bautista, Oriol Comas and Oriol Ripoll, who are among the few people in Spain willing to understand the importance and interest of games in a scholar environment. Thank you for your help, critical comments, books and support.

To all the Board Games Studies scholars and researchers, and especially to Dr. Ulrich Schädler. Thank you for your interest and helpful ideas. You welcomed me as a friend even though you barely knew me, and showed me how everybody should work.

To all colleagues from the Humanities Faculty and from the rest of the university. You taught me as teachers, and keep doing it as friends. Also especially to Martyn Baker, to whom I must thank the correctness of the whole text. Thank you for the accurate correction, intelligent reading and selflessness of your work.

Finally, I cannot finish the acknowledgements without saying that this research project was only possible thanks to the grant given by the *Comissionat per a Universitats i Recerca of the Departament d'Innovació, Universitats i Empresa of the Generalitat de Catalunya* and the European Social Fund.

FOREWORD: GAMES AS A UNIVERSAL STRUCTURAL PATTERN

Choosing games as the central subject of this research is the result of the interest in the fields of mythology, symbolism, ancient tradition and folklore during my degree in Humanities. Games are attractive, exciting and fun. They move us, and make us laugh in joy and cry in frustration. For this reason, they have frequently been neglected as a study object, because in the general opinion of Western bourgeois society, games are just a childish pastime. Nevertheless, if we think about them in a deeper, more critical way, we will immediately see that this is not true at all. Games are not just a subject for children, but for everyone. In fact, they are an essential part of human life; so essential that they are ever-present, a truly universal cultural manifestation. So choosing games as the object of study is not an accidental or arbitrary decision because games, as a physical manifestation of each and every human culture, are as worthy of study as painting, dance or music.

The problem is that their anthropological relevance has traditionally been underestimated. It is surprising that not only in general opinion but even in scholarly research, games as such have not featured prominently. With certain important exceptions, few scholars have dedicated their attention to what is, in fact, a rich and revealing field of study. However, why have games traditionally not been seen as an interesting area of study for science?

First, we have the underlying anthropological assumption that games belong with toys, and that they are effectively childish or trivial phenomena. As we

have said, toys (and games) are considered a subject for children and therefore, as childhood activity is not fully believed to be part of culture, toys (and games) are left out of the main fields of study. In almost every culture children are not integrated into the group until they have reached a certain age, and usually not before passing some kind of initiation ritual. So what they do before this so-called coming of age is nonsense, and therefore unimportant. When seriousness becomes a mark of adulthood, playfulness is scorned as childish. But in fact, before the modern phenomenon of commercial board games, boards with dice and pieces were mainly for adults, and not for children at all (FINKEL, I. 2007: 1). As Caillois points out: "*Or pour l'antiquité classique, s'il s'agit de jeux sérieux souvent liés à la divination et à la magie, ce sont là des affaires d'initiés et il est rare que les écrivains contemporains les décrivent; s'il s'agit de jeux profanes ou de jeux d'enfants, ce sont -hors quelques exceptions- des sujets trop frivoles pour les intéresser*" (CAILLOIS, R. 1967: 190). Even though we will not analyze the subject in this research, the fact is that even though games are seen as childish, we find nowadays many adult play mainly related to sports and gambling. Such activities are not seen as childish because they deal with competition and money, which are seen to belong purely to adulthood.

Thus, games are apparently only played during the first years of our lives (when we have "nothing to do" but play), and in our free time when we grow up. There are even adults that cease play entirely until they retire. Then, after a life of work, one somehow earns the right to play again. Therefore, as games are a mirror, which reflects the cultural and moral values of society, those who believe that work is sacrosanct frequently frown upon them (MACKENZIE, C. 2004: 14). Intuitively, we can see that games are not work. In fact, they seem opposed to what is considered work. That is because of the Western

conception of work, derived from capitalism and bourgeois life in Europe. When Johan Huizinga stated in his book *Homo Ludens* that play was superfluous he only reinforced its lack of usefulness for a society that considers things in terms of utility (HANS, J.S. 1981: 2). As González Alacantud points out: “*Jugar, a partir de ahora, debe tener su justificación, debe ser ‘útil’ para la educación, para la política o para la economía.*” (GONZÁLEZ, J.A. 1993: 187-188).

When traditional artisanship is progressively abandoned for faster, mechanical means of production, productivity dramatically increases at the expenses of creativity and self-realization. In the 18th century, the ideas of utility and so-called “bourgeois welfare” started to become a key element in society. The Industrial Revolution with its pursuit of technical efficiency further reinforced those ideas. Work and production became ideals, and soon, idols (HUIZINGA, J. 1968: 226). To achieve the “bourgeois welfare” one has to work, so the common belief is that nothing purely amusing is interesting, and that idea was applied to games. Marx’s notion that capitalism leads to man’s alienation from his labor suggests one explanation for this separation. To be alienated from ones work would mean simply that one does not play with work anymore. Work is not anymore an essential activity connecting to the world, but instead a separable aspect of life that has value only as a part of the rules of economic exchange (HANS, J. 1981: 25).

Therefore, as we have seen, in the 19th century most lines of thought concurred in abolishing the playful factor in daily life. Neither liberalism nor socialism gave it importance. Science was experimental and analytical; philosophy was based on utilitarianism and political reformism; art and literature preferred realism and naturalism, etc. Cultural manifestations were

pushed systematically farther from the idea of pure play (HUIZINGA, J. 1968: 227). In bourgeois western societies, even children were progressively influenced by these ideas: play had to be profitable. Games were seen as the child's opportunity not to waste time, or to have fun, or even to rest but to continue their education. While the upper classes saw in games the way to amuse themselves and stay healthy¹, the lower classes saw a way to prepare for adult economical life in their free time. That is why educational games become so popular in the 19th and 20th centuries. Even though in the 20th century this non-playful tendency has decreased, increasing the importance of sports events, games are still seen as not being useful enough to be considered part of culture. In fact, sports are often too serious (due to all the economic movement that they involve) to be considered "playful" (HUIZINGA, J. 1968: 233). So, it seems that games became an insignificant sideshow for a money-oriented society based on economic interests and production goals. It would seem that a society focused on material wellbeing does not need playfulness (HUIZINGA, J. 1968: 229).

However, if we think about it, any kind of non-essential economically productive activity, such as art², could be said to be a mere accessory to life. In addition, we know that such activities are an essential part of human life, as we can find them from the dawn of man up to the present days. So maybe if at least we considered games as an art, they would be a worthy object of study, like sculpture or painting. Nevertheless, while there are plenty of studies about the so-called artistic aspects of culture, games are not considered artwork so

¹ We have to remember that the Colonial/Victorian Britain was probably the most fertile period for the invention of games and sports.

² Note that we insist in art being a non-essential economic activity, even though nowadays it is one of the most lucrative cultural activities.

they are also neglected for this reason. Creativity in game design is still only valued by a few, even though it requires great mathematical or geometrical knowledge and aesthetic taste. If, as we have seen, games are thought to be a subject for children in our society, anything aimed mainly at children is not considered art. Moreover, in the cultures where only the written word (and by extension, physical and durable art manifestations) are considered worthy, ephemeral cultural manifestations are not as important as those that can last in time; therefore dance and games are not as respected as painting, sculpture or music³. Games, like dance, are meaningful just for the time when they are taking place. After that, only memory of them remains. A game, as we will see, is only meaningful while it is played. After that, there is no objective result of the game, it can start anew at any moment or not be played by the same people ever again. So the other artistic part of the game, that is playing it, is not usually tracked by players or by observers. Sometimes, only the result is kept, and this in itself does not give a great deal of artistic information to be considered.

So why should we consider games as a valid object of study from an historical perspective? The main reason is that they are universal. Games can be considered one of the universals of humanity. Every culture around the world plays and has played since the beginning of time. They share some kind of knowledge that can be said to be trans-civilizational. As Caillois says: *“Les jeux sont des constants de culture dont les formes peuvent varier d’une aire culturelle à une autre. Mais au-delà cette diversité infinie, l’universalité du jeu le désigne comme un élément fondamental de la condition humaine. Le jeu est un invariant humain”* (CAILLOIS, R. 1967: 1157). That fact

³ Since there is a specific musical notation, music can be stored and spread without the need of a direct human interaction, just like books can tell stories in a non-oral environment.

surpasses any other consideration that would discredit games as an interesting object of study. Games are part and are influenced by the cultural context of man, being a part of what Harris calls a “universal super-structural pattern of societies” (HARRIS, M. 1990: 471-472), more exactly as part of the behavioral superstructure. This superstructure includes all those activities and fields of knowledge developed in every culture, independent of their geographical situation or antiquity. It includes activities such as art, architecture, folklore, literature or dance (LAVEGA, P. 1999: 14). In this list, Harris includes other cultural manifestations of leisure such as, of course, games and sports.

As M. Dummet explains: “A game may be as integral to a culture, as true an object of human aesthetic appreciation, as admirable a product of creativity as a folk art or a style of music; and, as such, it is quite as worthy of study” (DUMMET, M. 1980, as in PARLETT, D. 1999: 4). In fact, board games are a complex cultural manifestation that takes inspiration from many scientific and artistic disciplines: from mathematics in rules and in board design, through painting in decoration to sculpture in pieces or boards. In fact, games spread from culture to culture in a way that is almost unparalleled. They exist at a level impervious to religion or politics, and represent a free means of communication between people that nothing can successfully interrupt (FINKEL, I. 2007: 1). They are one of the great unifiers of humankind. Therefore, if we examine games around the world, we can see a clear message: they represent a human and understandable universal (FINKEL, I. 2007: 3). Moreover, they are not linked to any specific cultural stage or to any conception of the world (HUIZINGA, J. 1972: 14). Therefore, the study of games is a cross-cultural subject, and a humanistic subject of great interest.

Therefore, it is surprising that scientific research about board games has not been more intensive during the last century. Considering the strong interest in games and their large audience, their mathematical involvement and their educational value, games should be a prominent topic in many scientific domains. But the truth is that games have been up to now a marginal object of study, for no apparent reason. Games are, in fact, interesting objects of study for science because they are part of a universal structural pattern of society, and now it is time to give them the credit they deserve.

PART I
THE SIMBOLIC STUDY OF
ANCIENT BOARD GAMES

1. METHODOLOGICAL FRAME

1.1 Purpose, aim and contribution

The research expounded in the following pages is the result of a twofold interest: games and symbolism. Both are part of my spontaneous interest in ludic culture on the one hand and for ancient history, on the other. The later is also the fruit of my studies and research in mythology and cosmology, developed in the Humanities Department of the Universitat Internacional de Catalunya, under the guidance of Dr. Josep Olives. These studies, which include subjects as “*Pensament*”, “*Historia de les religions*” or “*Ciutat, persona i civilització*” are the theoretical basis of the focus and methodology used in this research. This new methodology, proposed by J.Olives (OLIVES, J. 2007: 47-76), is centered on symbolism, mythology and in the study of rituals, and can be applied to a huge range of disciplines. My contribution is to apply this “humanistic” methodology (as Olives calls it) to the field of games, to which I feel special predilection.

The actual idea for the research came during the first years of our doctoral studies. Among the many readings, we found this quote by Hans Biedermann: “*Los juegos [...] encierran en parte interpretaciones simbólicas olvidadas. Hay imitaciones de ritos y funciones religiosas que se han conservado en forma atenuada en la comunidad de los niños, pero que hace ya tiempo fueron olvidadas en el mundo de los adultos*” (BIEDERMANN, H. 2000: 253)⁴. Likewise, we found the following passage by Mircea Eliade: “*Se sabe por ejemplo que, en su conjunto, los gestos, las danzas, los juegos de niños, los juguetes, etc., tienen un origen religioso: fueron alguna vez gestos u objetos culturales.*” (ELIADE, M. 1997: 35). Along the

⁴ We would like to note that this research project was written by a non-native English speaker, so many of the books used in the research are translations into Spanish and not their English, French or German originals. English books have been used when available, but access to foreign bibliography has been difficult, due to the research being conducted in Spain as well as the rarity of some books and articles.

same lines, we found this passage from Ananda Coomaraswamy: “We must remember that ‘games’ [...] are not ‘merely’ physical exercises, spectacles or amusements, or merely of hygienic or esthetic value, but metaphysically significant” (COOMARASWAMY, A. 1942: 551). Starting from these three coincidental lines of thought, we decided to go deeper into what Biedermann, Eliade and Coomaraswamy were only pointing out or suggesting. Following these lines of thought, it seemed that games acted sometimes as symbolic receptacles and maybe could be studied as such.

If this assumption were true, games are an almost ignored, virgin and unexplored research territory full of essential symbolic knowledge. While analyzing (or playing) the same games our ancestors played, we were also sharing their symbolic load. Therefore, if one could leave aside ones prejudices about games being childish or nonsensical maybe they were a research subject worthy of study. Following our growing interest in the matter, we decided it was a good theme to lead the research.

As Roger Caillois and Johan Huizinga explained in their work (see CAILLOIS 1958A, 1958B and HUIZINGA 1972), we could perhaps find some kind of relationship between board games and traditional symbolic representations or between their rules and divination rituals. In this way, the backbone of the research has become the study of traditional cosmologic symbolism in games. In doing so, we aim to widen the scope of symbolic studies already applied to other cultural elements to this often forgotten but ever-present manifestation of human genius: games. At the same time, we enter in the field of game studies to widen their scope to the symbolic and philosophical meaning of games. Parallel to this, we want to recover the study of analogical language, typical of the mythic-symbolic or magic-religious way of thinking, as part of the humanistic method as formulated by Olives (OLIVES, J. 2007: 61-62). This

philosophical cosmovision is usually called “archaic” or “traditional”, because it is found mainly in ancient cultures but also in contemporary ones closer to ancient traditions. The fact is that analogical language permeates the entire human symbolic structure, being as valid nowadays as it was in antiquity. Following this idea, we would like to recover the value of these analogies as a scientific subject of interest.

Therefore, this research project is in fact a fourfold contribution to humanities. In the first place, it widens the scope of symbolism to board games. In doing so, it contributes to both fields of games and symbols studies with interesting and original data, dignifying games as a valid object of research for all disciplines. Secondly, due to the preliminary research conducted, it contributes to the construction of a methodological framework (both material and theoretical) in a non-systematic field of knowledge such as symbols. Thirdly, during the whole research project the importance of analogical language is emphasized, and shows its present-day relevance and usefulness. Finally, through the main research, it reveals the key symbolic elements in ancient board games, thus making evident the interest of studying games from a philosophical perspective.

So then, the purpose of this research is to analyze ancient board games from the point of view of traditional cosmological symbolism. In order to achieve this goal we will look for the traditional cosmological symbols and philosophical ideas that, according to Huizinga, Caillois, Biedermann, Coomaraswamy, Eliade et al., became crystallized both in their physical shapes and their rules, up to the present day. To do so, we will study games from an interdisciplinary approach, inherent to humanistic thought (OLIVES, J. 2007: 68-76), that prizes synthetic knowledge above analytical thinking. The advantage of this kind of approach over a more specialized and concrete one is that in

doing so we break the barriers between specializations and find interesting and useful answers in one field that can be transposed and used to escape from methodological and conceptual dead-ends in other fields. Moreover, as we are dealing with worldwide, universal concepts, a global point of view without blinding segmentations will allow us to better understand man as a whole. Nowadays the great discoveries of science are in the so-called “frontier zones”: those separating (and at the same time, uniting) each specialty of knowledge. This research is conducted in these “frontier zones” where humanities can develop its full potential as a science.

1.2 Structure of the research project

The underlying structure of the research project is reflected in the expository order. This is meant to help the reader understand the intellectual process that leads to the conclusions.

The research project is divided into two parts. Part I, which includes this chapter, comprises the methodological aspects of the research and the main hypotheses. Part II is the main body of the research project, comprising the analysis and discussion of the symbolic elements found in ancient board games, with their corresponding conclusions.

Part I is divided into four chapters. The first one is the methodological and formal explanation of the research, which ends with the preliminary hypotheses that will be fully explained and completed in the fourth chapter. The second and third chapters are in fact a research project on their own. The second chapter explains how we progressively established the limits of the research subject, narrowing the scope of the research from all playful activities to a selection of ancient board games. The third chapter explains the

construction of a new theoretical model: a tool for the symbolic analysis of the concrete object, useful in discovering the symbolic structure of these games. It explains we delved into symbolism and analogical thought to create this construction, setting a first theoretical frame for symbolic board game analysis. It also explains how we studied the basis of traditional cosmological symbolism and focused on both its geometrical aspect and in the main anthropological themes shared by many archaic and traditional cultures.

After this theoretical part of our work, the fourth chapter reformulates the preliminary hypotheses, shaping them into the main hypothesis, and establishing the general and specific hypotheses, as well as those of methodological order. This chapter summarizes the thesis of this research project.

Part II is an analysis of the key symbolic elements in the previously selected ancient board games. Here we explain the main research in four chapters applying the theoretical model over the material object of study. In the first chapter, we introduce the general concepts needed to understand both the structure of this part of the research and its theoretical basis: the symbolic content of ancient board games. The second chapter delves into the symbolism of space and geometrical patterns with ancient board games seen as cosmograms. The third chapter is a reflection of the meta-gaming elements transversally present in the selected board games, both from mythical and ritual perspectives: ancient board games as anthropograms. The fourth chapter in Part II summarizes the results in its conclusions.

1.3 Preliminary hypotheses

Before embarking on the main research project, we formulated four preliminary hypotheses, based on our past readings and first intuitions about the object of study. These hypotheses were based on readings on traditional studies, game philosophy and symbolism, and pointed us in the right direction. They were, in fact, explicit formulations of the intuitions presented by Huizinga, Biedermann and Coomaraswamy. Formally, they focused our preliminary research on concrete results, limiting our material framework and helping to construct our theoretical model. Therefore, these four preliminary hypotheses, even though partially overlapping, form the basic structural foundation of the research project.

1. There is an interesting traditional symbolic and cosmological content in ancient games.
2. There is an essential anthropological, structural connection between ancient games and cultural manifestations such as divination systems and rituals in ancient societies.
3. There is a relationship between the shape of games and other kinds of traditional symbolic geometrical representations such as *mandalas*.
4. Symbols in board games can be studied and interpreted through symbolic hermeneutics and comparative studies.

1.4 Bibliography & iconic sources

Regarding the bibliography, as there was not a sufficient body of work on our object of study, we had to generate one by selecting from a wide bibliographical range. On browsing through the consulted bibliography, one will find books from many disciplines related to one or both of the main

elements of this research: games and symbolism. The main theoretical backbone of this heterogeneous bibliography is traditional cosmological symbolism, to which we have been introduced through the writings and direct teaching of J.Olives.

From the vast bibliography available, we selected those books closer to the geometrical-cosmological and anthropological-philosophical themes dealt with below. From this theoretical point of view, we focused the bibliography on traditional games. Here we looked into their history, anthropology and archaeology. In between, we used a selected interdisciplinary bibliography to help us better understand and link one theme to the other.

We must keep in mind that this research project belongs to a humanistic point of view, comprising a wide array of disciplines such as anthropology, archaeology, philosophy, psychology, history, art history, classical history, mathematics, symbolism, sociology, comparative religion, etc. So then, an important part of our research project was delving into the huge amount of specific bibliography in these disciplines in order to find useful books, chapters or articles that could be interesting for us. This resulted in the multidisciplinary and interdisciplinary bibliography that we used, presented in the last part of the research.

The justification for such a heterogeneous selection is easy, following the approach to humanities defended by J.Olives that we explained above. The humanities, as a whole, are open to profit from any kind of scientific study and therefore pliable to any kind of methodology, investigative technique or data treatment method. In any case, the proper humanist approach that we follow is synthetic and speculative thought, as we apply it in this research project. This approach overcomes the sometimes too focused points of view of the

separate disciplines, finding new and meaningful information along the boundaries and correspondences between them.

As an example, we would talk of a common case of interdisciplinary approach used in this research. Even though this was not a pure archaeological research project, we used many archaeological sources to gather information about the games we wanted to analyze. We cross-referenced this information with those from art history, classical history and anthropology to find similarities with other cultural manifestations that could shed some light on the symbolic elements they presented. Finally, we proceeded to sources about comparative religion, psychology, symbology and philosophy in order to study these symbols. In this way, gathering and treating data from seemingly disconnected sources generated under the intellectual guidance of our research director, an original, completely new perspective on the objects that we were studying.

We include all bibliography on both symbolism and games as main sources. We are not studying games as a whole, just board games, nor symbols as a whole, but only those related to traditional cosmological symbolism. For this reason, the generalist works about games and symbols have only been useful to a certain extent. Even though the total number of books about board games is not in itself small, not everything that has been written about board games has been relevant for our research. In the same way, even though authors studying traditional cosmological symbolism are not rare, those who talk about traditional cosmological symbolism and board games at the same time are.

As the specific object of study is ancient board games, we discarded all bibliography dealing only with contemporary or “post-Antiquity” board games as being too peripheral. At the same time, we did not directly delve into

mathematical game theory, so even though some ancient board games were mentioned in these theories as examples they were not useful for this research.

We also used bibliography about specific cultures and periods of time, in order to better understand the wider frame where both games and symbols appeared. We were interested in historical and artistic sources only in a peripheral and secondary way, so both board game histories and art catalogues were used only as pictorial reference. They were also useful to cross-reference known rules and/or possible reconstructions. It is important to note that in this way all the information related to ancient board games or symbols was studied from “second-hand” sources. We did not have direct access to the actual game pieces or boards, as we went neither to the cities nor the temples mentioned to corroborate their orientation.

In parallel to bibliography, this research has gathered a valuable amount of iconic material that has been vital to our analysis. We decided to partially incorporate this collection of images to illustrate concrete ideas throughout the research, and we offer them throughout the text. We used pictures from our private collection of games, as well as other pictures from manqala.org, the Wikipedia, the Swiss Game Museum, and other sites on the internet. There are also scans and inserts taken from books in the selected bibliography. All the relevant sources are cited in the captions accompanying each image.

2. LIMITING THE MATERIAL OBJECT

As the first step of this research, we brought into consideration the concrete object that gives name to this research: ancient board games. This is because as part of the methodological frame, we wanted to clearly determine the object of study (ancient board games). None of studies about symbolism or games in our starting bibliography had a useful selection of games close enough to the material object we wanted for our research. Some were too generalist, including all kinds of play (HUIZINGA, J. 1972, CAILLOIS, R. 1958, FINK, E. 1966). Another group treated a very limited list of games with dubious or incomplete selection criteria (FARGAS, A. 1997, PENNICK, N. 1992), or centered their studies on just one small part of the field (BERGER, F. 2003, DE LA TORRE, R. 1985). Therefore, we decided to create a new list from scratch, progressively establishing its limits. In this way, exploring the material object of study and its limits we defined the material frame of our research project. As this is, academically speaking, a relatively new object of study and very difficult to be intuitively limited as we have already explained, we found interesting to delve into the successive limitations that any researcher in this field of knowledge must have considered. For this reason we centered our attention in ancient board games, discarding all other forms of ludic entertainment and anything else related to the terms “play” and “game” but not included in this research.

First, there were many activities related to the word *play* (theatre, music) that widened the field of study excessively. To avoid this, we discarded all activities related to play that were not specifically games. Next to this, we found another problem: the list of known games is countless. If we go backwards in time, the total amount of games grows to an amount it would be unfeasible to study. To avoid this problem we clearly needed to focus on a sample of all games available, thus limiting the concrete object of study to a manageable total.

After successive limitations, we found a concrete object of study that could be traced back in time, because a recoverable physical frame exists: board games. Moreover, the construction and use of board games needs a greater level of abstraction than any other kind of games, making the display of symbols in them unavoidable and because of that an interesting study object for this research project. Besides, this subsample made the list of games more manageable. So then, we centered the focus of our research project on board games, separating them from other kinds of playful activities. With the clear definition of what board games were, all possible misinterpretations and ambiguities of the term were also discarded.

To further concentrate the efforts of the research, we limited the sample of board games to those belonging to Antiquity. For doing so, we firstly defined the term “Antiquity”, relating it more to a specific frame of mind and beliefs and less to a concrete geography or period. After this, we selected a subset of games from the specialized bibliography to be the concrete object of study. These games were selected following several criteria, including their geographical origin, cultural environment, etc. Finally, we tried to establish a functional classification for these games, based on the concordances in their rules. That idea led us to classify them according to their game mechanics and goals, in order to flee from concrete sets of rules (sometimes only valid during a certain period of history). Once the first division was made, we went on to identify which were the oldest games available. In order to create a preliminary list, we consulted the one presented by J.M. Lhôte (LHÔTE, JM, 1994: 375-378). We completed and amended this list by consulting the works of HRJ.Murray, RC.Bell, I.Finkel, as well as the newest articles in the field of archeology. At the same time, we found (when available) schematic representations and photographs or images of actual boards to help illustrate this research. Comparing different images and variations of the game helped us understand

what features of the board and pieces had to be considered part of game mechanics and which were just temporal accidents or trends. After seeing that the symbolic implications of games went far beyond their physical shapes, we partially widened our research in order to find the rules of these games⁵, in order to better analyze them in Part II.

2.1 Man and play

Researchers on children evolution keep pointing the importance of playing in child development because it is through playing that children start to socialize and relate to other children (see PIAGET, J. 1977 and PIAGET, J. 1984). In the same line of thought we could say that certain animals (as small children) play by instinct, it is engraved in their DNA. Nevertheless, why do all play is a more complicated subject, not remotely evident. The widespread opinion, taken from the first studies about the subject, is that this kind of play is a kind of training for adult life, or a form of social bonding within the species. Some have tried to explain it biologically, in terms of spending the energy excess, a congenital sense of imitation, the urge to relax... Supposedly, play is “useful” because it trains hunting, mating, and general life skills in a somewhat protected environment. In this way, cubs reach adult age with the necessary abilities (HUIZINGA, J. 1972: 12-13). However, later researches in the field have stated that few concrete things can be proved about the function or utility of play in the development of abilities. The only sure thing is that playing is fun, and improves the emotional state of the living beings, resulting in a better disposition for life and creating social bonds (SUTTON-SMITH 2001: 18-34). Playing goes further than our instinctive and biological needs and seems not to

⁵ Written rules of ancient games are sometimes very difficult to find and very obscure, if found. In any case, even though rules are not complete they allow understanding of the general mechanics of the game and its relation to similar games, thus leading us to the plausible rules by extrapolation.

have other function apart from making us happier, and thus more eager to confront our daily lives and our social relationships. Playing is a value in itself that goes beyond any kind of improvement of the skills necessary for survival and it has to be seen this way. As Huizinga asserts: *“El juego, en cuanto a tal, traspasa los límites de la ocupación plenamente biológica o física. Es una función llena de sentido. En el juego ‘entra en juego’ algo que rebasa el instinto inmediato de conservación y que da un sentido a la ocupación vital”* (HUIZINGA, J. 1972: 12).

Therefore, the first statement in this research is that play activities (concretized in games) are going to be considered as a very meaningful and important cultural element and not only as a biological, animal-like function. We should think in human play as being both part of his animal inheritance and as a complex cultural development, fruit of his self-awareness. Man became aware of a frightening and paralyzing fact: he was going to die one day or another and he could not do anything about it⁶.

As man becomes aware of what he is, and of his foreseeable death, questions about himself arise and every human natural activity is rethought, analyzed and dissected. “Why do we need to eat? Why do we fall sleep? Why do we play?” The first answer comes naturally: “because if we do not do it, we die”, “because we like it”, “because it is fun!”, “because I feel more human in doing

⁶ This essentially human experience can be beautifully exemplified by the *Gilgamesh's* poem (as in REVILLA, F. 2007: 62)

*“Y ahora, ¿qué sueño te ha invadido?
tienes el rostro inmóvil y no me oyes...”
Pero Ekindú no abre los ojos.
Gilgamesh le pone la mano sobre el pecho:
el corazón ya no late;
abrazo a su amigo como a una novia,
ruge de dolor como un león,
como una leona a quien se ha quitado su cachorro;
vierte lágrimas, rasga sus vestidos
y se despoja de sus adornos.
”¿No moriré yo también como Ekindú?
el miedo se ha metido en mis entrañas,
la muerte me atemoriza y vago por la llanura...”*

so”. Play, as human activity, is also questioned, changing it from within during the process. We could theorize that the next thought concerning play is related to somehow improve or establish it as a distinct activity. The thought “That was fun! How can I do it again? How would it be funnier?” is the first step of fixing rules to casual play. Even more, each game (as play according to rules) has become a manifestation of the human culture where it was played, and a cohesionant element within this same culture (FARGAS, A. 1997: 10).

Actually, games are not only just one more cultural element because they are included, as we would see in the chapter dedicated to methodology, in a series of activities often called “play” that include theatre, dance, music and many other cultural and leisurely activities. We have discarded all of those activities not directly related to board games beforehand in order to limit the field of study. In any way, it is interesting to see that all activities that are seen as “play” globally offer a series of links and relationships with religion and cult that are to be used as a starting point for part of our research. All of these activities (that include theatre, dance, music, painting, poetry, narrative, sports, etc.) were in their origins directly related to religion and to cult. Games relate in the symbolic level with the rites of death (funerary games), the laboring and cropping rites (agrarian games), the coping with hostile forces (fighting games) or the relationship with oneself (our own fears, weaknesses, doubts...) (CHEVALIER, J. & GHEERBRANT, A. 1999: 610). That brings us the idea that conscious human game, when it really signifies or celebrates something, belongs to the sphere of cult, the sphere of the sacred (HUIZINGA, J. 1972: 21). In fact, it is significant to point out that the first⁷ board games that we know about are found in funerary environments. Play is, in fact, the symbolic act by

⁷ In this case, “first” as we know them nowadays: Mehen, Senet, the Game of Twenty Squares, the Game of Ur and the ancient Backgammon, all from around 3500-2000 B.C. Many simpler board games that we know about are probably much older than that. However, though they are generally considered ancient they have still not been dated, so their antiquity has not been confirmed.

excellence if we understand it as the reunion of two different parts of the same whole, the overcoming of a previous separation (FARGAS, A. 1997: 17).

For ancient Greeks, these games (Olympic, Pythic, Isthmic, Meneic...) were periodical ceremonies that accompanied certain festivities, during which athletes, acrobats, performers and poets competed in different disciplines. Among the ancient Romans, these annual sacred cult practices, called *ludi*, were very important too (HUIZINGA, J. 1972: 207). Games were seen as a way of ritually and periodically improve the social bonds between cities, exteriorizing and somehow exorcizing their internal oppositions. These big festivities helped to remember periodically to all participants the belonging to a bigger group than their own cities, and to remember their common origin and interests. During the games, there were no wars, nor capital punishments, nor judicial embargos: it was a sacred time, where a general truce was held. Being not only Greek but purely human, analogous cultural ideas follow the concept of play and game through the world, accompanying funerals, sacrifices, divinatory practices (CHEVALIER, J. & GHEERBRANT, A. 1999: 610-611). As Chevalier & Gheerbrant explain: *“Los juegos aparecen siempre, consciente o inconscientemente, como una de las formas de diálogo del hombre con lo invisible”* (CHEVALIER, J. & GHEERBRANT, A. 1999: 612).

So the “human” way of playing is deeply related to what being human is. As we have mentioned, casual (animal-like) play becomes a human game through the setting of rules. If we move from games to board games, the concrete study object of this research, we will see that they require even a higher level of intelligence and abstraction, many anthropological assumptions, cultural knowledge and social skills. Abstraction is a key feature in these structured games, whereas most examples of informal childish play are impossible –or at least meaningless– without some conscious representation of, or reference to

real life (PARLETT, D. in MACKENZIE, C & FINKEL, I. 2004: 29). That is because in board games man finds himself playing less physically and more in another signification level, characterized for being almost fully theoretical and symbolic, where actions are limited to abstract moves. From the childish, elementary way of playing common to human beings and even perhaps to certain animals (catch me if you can, hide and seek, or fake fighting) to the more complex and evolved human board games (as Go or Mancala games) there is a great ontological jump: abstraction and symbolism. If we think carefully, both play and games are abstract in nature they need of a different set of rules and a specific disposition of the players towards their environment that differentiates what they are doing from “daily life”. The difference is that in achieving a higher level of abstraction, the central activity, the theme of the game, does not involve the players physically but symbolically and even the players’ actions and the environment where they are playing become abstract, but more controllable, tangible and limited: the pawns and board.

2.2 Play, game and board games

The confusion between childish or animal play and playing games comes first from the linguistic problem that causes the fact that we “play” games (we do not “game” games). As play covers more than just games or board games, a way of clarifying the meaning of the word game is to explore the meanings of the word play and then deduct from the total those definitions to which the term “game” is not applied. Perhaps “play” is best used as an adverb; not as a name of a class of activities, nor as distinguished by the accompanying mood, but to describe how and under what conditions an action is performed (SPARISOU, M. as in FINKEL, I. & MACKENZIE, C. 2004: 23)

According to Huizinga (HUIZINGA, J. 1958: 63-95) everything related to culture can be considered play because all major cultural manifestations have their roots in the urge to play. The underlying connotation of play is that of a repeated activity, like in “playing notes on a keyboard” or “the sunlight playing with the waves”. Play also belongs to the superior field of activities that define us as spiritual beings, together with religion and arts. Even more, Huizinga says that arts can be considered a form of play: music is playing with sounds, painting is playing with paint and colors, poetry is playing with words, etc. In any way, this assertion seems too wide for us to use in this research, so we’d refer to the analysis made by Roger Caillois, where he recognizes four classes of play (CAILLOIS, R. 1958B: 51-74): contests of skill or wit or intelligence (*ágon*), struggles with chance and randomness (*alea*), drama and simulacra (*mimicry*) and finally transcendent or ecstatic, vertigo experiences (*ilinx*). All these activities can be easily recognized as “play” because they share some traits that separate them from other common activities. Caillois introduces another element into these activities in order to classify them internally: the difference between those unstructured playing activities and those structured. Typical examples of unstructured play are children’s schoolyard games. This is the reason why Caillois calls this kind of play *παιδία* (*paidia*) the Greek word for children’s games. *Παιδία* is senseless and free, and is related to laugh, improvisation, instinct, turbulence and surprise. Opposed to that childish play is the kind of structured play that Caillois calls *ludus*, from the Latin for “game” in the sense of contest⁸. *Ludus* is structured and ruled, and is related to thought, and sometimes to practice. This is the kind of play that is mostly related to adults, and it could appear as sort of an “education” of the *παιδία*, enriched and disciplined (CAILLOIS, R. 1958B: 79). These two aspects of each kind of play

⁸ Is in this last category (*ludus*) where we find the object of this research, games. We would specially deal with two of the possible play categories: *ágon-ludus* and *alea-ludus*, which are the structured and ruled version of contest-based and chance-based ways of playing.

grow as the other diminishes, being impossible to have many *παιδία* and *ludus* at the same time (that is, an activity being senseless and childish and having strong, unbreakable rules, for example)⁹. Board games, as we will study them here are specially related to the *ágon-ludus* and *alea-ludus* activities referred by Caillois.

Our study object (games and specifically board games) are a specific subgroup of the playing activities, as we have seen. That means that they would share most of their basic traits but not all. Therefore, it is interesting to define these common traits and the possible differences in order to both separate play and game from the rest of human activities and from each other.

The first and most important trait of play is that playing (as gaming) is a fictional activity. There is a “second reality” or “unreality” conscience related to daily life. While playing we act in a different way that we usually do, and we do things that we usually do not. Moreover, things that we do are only understood by those “in the game” with us. People outside the game can clearly see that we are playing, that we are not dealing with reality. In fact, during child play expressions like “Now I am...”, “I’ll be... and you’ll be...”, “Now we are...”, are very common because they manifest the will to change the perception of themselves and of the world in order to establish a different level of reality, suitable to play. Children know that they are playing, but while playing they pretend to be this or that. Is not that they do not know that they are playing, that everything is false, but they want to pretend it to be true. As Caillois asserts: “*cela est évident lorsqu'on entend dire à un petit: 'Ce n'est pas vrai, mais je ne veux pas qu'on me le dise'*” (CAILLOIS, R. 1967 : 85). This fiction is achieved

⁹ For a complete chart depicting each type of play with their *παιδία* and *ludus* traits, see (CAILLOIS, R. 1958B: 91).

through conventionalized signals that create a meta-message that lets the participants (and the outsiders) interpret their actions as playing actions and not as real actions (ELIADE, M. 1987: 474). Wearing a specific cloth, acting in a certain way or saying certain words would suffice for the players to know who is playing and who is not. In board games, the physical act of sitting in front of your opponent with the board in between clearly centers the players' attention poetically reducing the whole world to the gaming space.

A second trait, deduced from the first one is that play (but mostly games) is under a set of conventional rules that substitute the ordinary ones. Ordinary rules, those from reality, are not abolished: only suspended for the time of the game. There is a playing etiquette and attitude for players to follow if they want to be in the game. Each game has its own set of rules and laws that are compulsory and that if they are not followed they put the development of the game in danger. Those who do not act according to the rules or try to cheat are put out of the game (probably by other players or by the game itself). As weird as it may seem, cheating is still acknowledgment of the rules, because the player that tries to cheat is willingly circumventing them in order to win (being that a rule). The one who can really destroy the mood of the game is not the cheat but the one who negates the apparent absurdity of the rules of the game. His arguments are irrefutable: the only reason of play is play itself. There is no actual reason for the rules to be in this way and not in other way. By negating the rules one not simply ceases playing, but puts into doubt the play of the other players and it becomes meaningless and empty.

This idea takes us to the next trait: playing is a delimited activity as games are. For playing, players need to define a (more or less loose) period when to play. As not all the time is playing time, players need some kind of temporal reference to limit what is playing time. As we have seen, during play the

perception of time and space change (as also the rules by which one acts change). Players go internally out of the objective timeframe to a purely subjective and meaningful playing time. They know when they are playing and when the game ends, so they can resume their normal lives. This idea is not only related to time, but also to space. For playing, one needs to know the boundaries or limits of the playground, that is, where the rules of play are valid. Therefore, as we have seen, when we are playing we live in separation. In at least four aspects (logical, jurisdictional, temporal and spatial) playing is made free from context, from the rest of the world, from everything (REURICH, L. in DE VOOGT 1995:187). Moreover, playing a game has an all-or-nothing character: when you are in it the outside is absent. You can never seep into a game, because it must be a conscious and willful activity, separated from the world. Reurich gives a very good example in a poetical but clear way: “Suppose I’m playing chess. Suddenly the doorbell rings, so I go up and leave the room. When I come back the chessboard has disappeared. When I ask the friend I am playing with: ‘Where’s the chessboard?’ he replies: ‘Oh, it was captured by the horse’. This silly answer is totally beside the point, but why? [...] My friend confuses two spheres: the internal and the external, what is the game and what is not the game at all. This confusion draws attention to the clear-cut borderline between the game and the rest of the world.” (REURICH, L. in DE VOOGT 1995: 185).

Play, as we have introduced at the start of this chapter, has to be an activity out of free will. No one can be forced to play, because the disposition needed to do it is essentially voluntary. One can pretend to play (or even play to play) if told to. The difference is that a game is only played in the moment that one wants to play. Without this freedom, play becomes something nearer to work, because when one must play, one does not really play at all. For example, when a professional athlete plays to earn a living he is not so much playing for

his own enjoyment as performing for the enjoyment of the onlookers who pay him. In other words, professional sports are not play but a branch of the entertainment industry.¹⁰ The freedom and voluntary nature of play does not serve a conscious utilitarian function like eating, sleeping or finding shelter. We do not play because we have to, but because we can and want to. Play is self-validating and self-actualizing (PARLETT, D. in MACKENZIE, C. & FINKEL, I. 2004: 23-25).

Other essential trait of play (shared with games) is unpredictability. The result of the activity is unknown when it starts. The uncertainty of a certain result implies a high degree of curiosity from the players. This sort of controlled uncertainty (as the possible outcomes of play are limited) produces joy, as when the curiosity for the result is satisfied. In fact, all ruled games are based on uncertainty, because the outcome of the game (the winner or loser) is unknown to the players. The risk of winning or losing moves the players to play. If this uncertainty is not present, we probably would be talking about a theater play, but never about child play or games. That is the reason why there are so many games based on chance (in the form of dice or cards), because these implements introduce a higher level of uncertainty than the player versus player would have.

Last, but not least, another trait of both play and games is that they are a gratifying activity, done because they give some kind of pleasure or joy to their players. This joy or pleasure can be physical, emotional, intellectual or spiritual. Sometimes, playing can be punctually unpleasant (as when someone is forced

¹⁰ It is a common error of our industrial and bourgeois society, where too many people pay other people to play games for them instead of playing themselves. Just as they buy ready-made meals rather than the raw ingredients to make them. Sometimes the lack of time is the excuse, but the truth is that we live in an increasingly sedentary society, where money is thought to be the solution to everything, even time.

to take a role he does not like, or has to pay a price for loosing) but the thrill of playing makes this kind of sensations fun in the whole. This ludic and entertaining factor of playing cannot be ever set aside. Nevertheless, as we see, we cannot define playing in general for its lack of seriousness¹¹, because we have seen that players really obey the implicit rules of play in a very serious way. While in game, players believe in what they are doing. This is why Caillois compares playing with dreaming: “[...] *le critère du sérieux est inopérant, pour la simple raison que le joueur est sérieux pendant qu'il joue et qu'il tient alors le jeu pour la chose la plus sérieuse du monde, un peu comme le rêveur, pendant qu'il rêve, tient le rêve pour la réalité*”. (CAILLOIS, R. 1967: 150)

As we have seen, the most important feature of games (as opposed to pure play) is their structure. A game is something we play, essentially a particular session of play, or playing in certain, more or less fixed, way. Therefore, the first and most important structural feature of games is its rules. Games are a set of procedures defined by a code of rules to which the players, by an act of free will, agree to follow (PARLETT, D. in MACKENZIE, C. & FINKEL, I. 2004: 27). One of these rules is that which defines the agreed objective that all players try to achieve: the “goal” of the game. This objective produces a winner and one or more losers, and is intrinsic to the rules of the game. In fact, a game can be said to be its rules¹². The difference between playing Game A or Game B is that the code of rules used is different in each case. Even though the implements of play, as the board, or dice or cards, can be shared by many games (i.e. all different Chess variants played over the same Chessboard and

¹¹ We have to remember that the opposite of “fun” is not “serious”, but “boring”.

¹² That is in a wide sense of the concept “rules”. The implements needed to play would also be included here, as an implicit rule stating “this and that are needed to play”. The number of players and their relationship with the game would be also included. Therefore, a game would be the sum of its rules, its implements and the players playing it.

with the same pieces), it will be still the same game until you change its core rules or the board in a very meaningful way.

Even though we have separated activities related to the term “play” from those related to the term “game”, we still have a huge group of related activities that we must reduce. Apart from the obvious relationship with hunting, in the case of physical games, the term overlaps with sports, while chance games are overlapping with “gambling”, including betting on things that nothing have to do with the players (PARLETT, D. in MACKENZIE, C. & FINKEL, I. 2004: 29). As neither of this overlapping areas are the object of this research we would first discard any physical game¹³, and any other form of sport. At the same time, the word “game” is used in English to call animals worth hunting, but of course we would discard all those activities. Moreover we will discard any pure gambling game as such, mostly casino games, but will include gambling as a usual element of board games through history.

As the title of this research implies, limiting the concrete object of study to games is not enough. For these reason, and in order to clearly limit the scope of this research we should will define and differentiate board games from the rest of games explaining their similarities, differences and peculiarities.

As the rest of games, board games need of a more or less closed set of rules, known and common to all players. They also need a specific place to be played, delimited and somehow separated from the rest of the world. The first distinctive trait of board games is that their playing field is a much delimited and schematized surface or board. Even though we are going to talk about board games all the time, they do not need to be played on an exempt board,

¹³ That is, any game that relies in the physical capacities of their players: dexterity, strength, speed, etc.

made from durable material. If we think about it, one could draw or carve the same board on the ground or on a sheet of paper¹⁴ and play without any problem. The only rule is that the board has to be fixed according to the rules, known to all players and clearly delimited and marked.

The very distinctive trait of board games, that differentiates them from other games played on limited surfaces is that the squares or spaces where playing pieces or implements can be in is always a limited, discrete number. This array of discrete geometrical positions is a whole number, reasonably low, that allows players to handle the whole board at a glance. These spaces are clearly delimited (squares, intersections, holes, etc.) and different from one another. As an example, we could mention the case of Chess¹⁵. There are only sixty-four possibilities for a Chess piece to be on the board. It is senseless to indicate in which part of the square the piece is, as the whole square represents the position. Each square is considered a single playing space, delimited and equal to each other of the sixty-four squares on the board. As a completely different example, we could see that does not happen in Billiards. Even if it has a limited playing surface, there are virtually an infinite number of possible positions for the ball. We cannot clearly call each position by a name or give it coordinates, so it is conceptually clear that Billiards is not a board game at all.

Another interesting and defining trait of board games is that they all also have some kind of pawns or pieces that players use in an indirect way to play the

¹⁴ That includes many traditional Mancala games or games like Bul, Lions and Lambs, Seega, and Alquerque but also pen-and-paper games like TicTacToe, Five in a Row and Battleships.

¹⁵ Any reference to concrete game names in this document and throughout the research, ancient and traditional or modern and commercial would be written with a starting capital letter (Chess instead of chess, and Game of the Goose instead of game of the goose) as we started to do in the previous note. In this way, they would be easy to identify in the text and on the other hand would help to solve linguistic ambiguities. For example, it would help to differentiate the game of Tablas from the tables where people eat and the dice used in the game Dice. As Parlett notes in the introduction of his *History of Board Games* “they also obviate the sort of confusion exemplified by the difference between Loosing Chess, which is a game, and loosing chess, which is a disgrace”.

game. These pieces are placed and/or moved around the board, occupying specific positions (usually called “squares”, independently of their shape). Players either own these pieces (thus differentiating them with a distinct color or shape, as in Pachisi) or own the space where these pieces move (in Mancala games). It is also important to note that this activity is not simultaneous to all players: they alternate their influence over the board (i.e. moving their pieces) taking turns.

So the basis of board games is that the players, usually two in number, place pieces on, and/or move them around, a flat surface marked with a geometric array of specific locations. These players move alternately, each move changing the scenario, and the winner is the first to achieve whatever the rules of the game define as a winning position (a particular location, capture one, some or all of the pieces, etc.) (PARLETT, D. in MACKENZIE, C. & FINKEL, I. 2004: 29).

Finally yet importantly, we must remember again that in board games players do not use their agility, strength or any other physical capacity during play. Instead, they are using their intelligence, memory, mathematical capabilities, abstraction and intuition. Even it is true that some kind of physical interaction is compulsory to any activity the stress of playing games falls purely on the mental capacities. To understand better the degree of physical implication that players in board games have, we can attend to this rule: the physical component (actually moving the pieces around the board) has to be able to be performed by any other person different from the players. This person, when moving the pieces following the players’ directions, would not alter the outcome of the game at all. In any way, even though board games by definition do not rely on physical capacities, they can be influenced in a physical way and that is an important factor to have in mind. The physical

constitution of the player (illness, tiredness...), his mood (being sad or bored) and the physical circumstances of play (background noise, interruptions...) can dramatically impair his performance. Therefore, seeing the influence that these psychological factors can have on the outcome of the game it would be interesting to include both players and their surroundings into board game research. Playing a board game introduces movement, sound, atmosphere and other elements, which are described by poets rather than academics. If we consider a context with players, boards and pieces, and rules, it appears that these elements cannot be separated for a complete understanding of a board game (DE VOOGT, A. 1998: 6).

Once we have limited our concrete object of study to board games, we want to justify this criterion. The main advantage of taking board games as concrete object is that, as opposed to other kinds of games, they have the possibility of a direct formal study. That is useful in any symbolic research, because they have a physical support and shape and that leaves some kind of evidence through time that can be found and empirically studied. Moreover, they seem to offer a rich display of plastic representations to deepen the research. If we had chosen other kinds of games, i.e. running games or word games, we would be very lucky if we did find any written testimony or artistic representation of them that could reveal their presence in a specific historical environment. As Caillois explains: *“Nous ne pouvons connaître les jeux disparus que par la littérature et par l’iconographie”* (CAILLOIS, R. 1967: 190). So if we do not have any kind of testimony, we can not study them. And, even if we had a written description, it could be not very useful as Murray points out: “Sometimes [researchers] only give the native name of the game, but more often they call it ‘chess’ if it looked complicated, ‘draughts’ if it looked simpler, or dismiss it as too difficult to understand” (MURRAY, HJR 1951: 3).

Other reason to choose board games is that they have a fixed set of rules and a fixed board. Even though both rules and boards can change through the passing of time, they tend to be more stable and coherent than any other kind of games. Once a board game is created, the set of rules may vary but never completely lose their original mechanics because they are encased and crystallized in their geometry. Of course, other non-board games could have been interesting to analyze symbolically, but would be left aside in this research for the reasons explained above. In fact, we do not discard a further research in this field in the future, particularly about card games.

2.3 Antiquity as main selection criterion

Once board games have been delimited, we now propose another limitation: focus the research in the oldest board games known. We have to think that man cared more about sacredness, symbolism and the analogy between man and cosmos in the ancient ages (OLIVES, J. 2006: 21-23), therefore that zeal was surely reflected (in a conscious or unconscious way) in ancient games. That makes them the perfect object of this research because games in antiquity would still conserve their sacred meaning and their full symbolic charge that sometimes is later forgotten or falls into disuse with the passing of time. As Fargas asserts: *“En la Antigüedad, toda actividad humana tenía un carácter sagrado y se explicaba en función de su relación con la divinidad o principio”* (FARGAS, A. 1997: 17).

The term Antiquity, as commonly used, is a concrete time period that starts with the appearance of writing (that is, with the beginning of history) and lasts until the start of the Middle Ages, when the Western Roman Empire falls in 459 A.D. (OLIVES, J. 2006: 223-225). The problem is that a concept defined in this way is purely Western, thinking history through a very Eurocentric point of view. It is impossible to measure or define the beginning of Antiquity worldwide, because meanwhile some civilizations had writing systems others

were still advancing with oral traditions. For the scope of this research, we want to use a broader concept of “Antiquity”. In the way we would use it here it would comprise all traditions and cultures around the world, not only European or Western.

First, we will expressly ignore the fact that situates the start of Antiquity as the end of Prehistory (that is, with the appearance of writing). That is because we consider the existence of a rich oral tradition before the appearance of written legacy systems as interesting as the written ones proved. The first written texts of humanity, which are the doctrinal deposits of the great civilizations, reinforce even more the idea that there were great oral traditions beforehand. So the lack of writing systems does not mean nor the lack of symbolism neither the lack of board games.

The main feature of Antiquity as we would use the term is the importance of the analogical language. This appreciation would let us include into Antiquity all prehistoric cultures, that is, without writing systems, from which we want to study games. We would also keep from establishing a fixed end of the period, because we cannot talk of a generalized abandonment of analogical thought. In fact, there are still countries that preserve this central analogical point of view in their way of living. Because of that, they have a closer relationship with nature. As Olives suggests, in India and China these ideas are ever-present, or at least they have been until very recent times, because these cultures conserve and treasure their oldest traditions (OLIVES, J. 2006: 88-89). Of course, is in these traditions that we find some of the oldest board games, because they have been passed from generation to generation, and some are even still played nowadays.

So if we accept that the most important feature of games is the analogical thought that lets us play “as if ...” (LEROUX, H. 1976: 45) and this idea was ever-present in Antiquity, as defined here, the reason of choosing ancient board games as our study object becomes clear.

Games played on boards are a truly an ancient institution. The first archeological examples come from a handful of pre-pottery Neolithic sites in the Middle East dating from around 7000 BC. From the context of their discovery, it is evident that their appearance, according to Irving Finkel, coincides with the development of structured and sedentary communal living (FINKEL, I. 2007: 1). Nevertheless, with these earliest game boards, so remote in time and so far in advance of historical record, is very difficult to know how they were played to or even if they were used to play.

In the first place, we would study the oldest board games available to archaeology that have been allegedly proved to be games. Then we would also include games of which there are no physical remains but writers and researchers from other ages described them. To these we will add those games that even being been allegedly invented after the usual period being called Antiquity share traits that can be said to belong to it.

We would also use as examples those archeological remains that have enough similarities with known games to be interesting enough to be cited, even though they cannot be properly identified as games. There are many samples of so-called “games” that could be doubted of. Prehistory and ancient history is very diffuse, and archaeology is limited. Many petroglyphs are said to be games, but also proper games are treated as just some kind of petroglyph or neglected as just markings. As we can see, there is still research to be conducted in this field, and even then is not clear if it would be possible in

many cases to elucidate if it was a magical implement, a game or both things at the same time¹⁶. In any way, for our research, as we are studying both games and symbols as such, from the moment, that someone has used that glyph or symbol to play over it as a board game is interesting. If a game has been played sometime somewhere over a board with a concrete shape, that we find repeated in other culture as a magical talisman we will not put into discussion if this talisman was seen as a game or not. In fact, it will only reinforce the idea that both games and talismans share a symbolic background based on the same traditional cosmology.

Definitely, it is more interesting to study the games not for their historical peculiarities, in a concrete cultural context with concrete rules and shape, but to see the underlying geometrical and structural basis that makes it an interesting research object in a symbolic context.

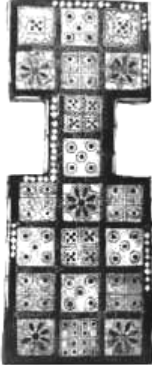
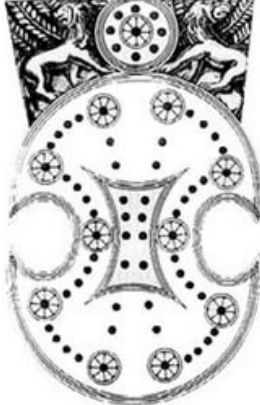
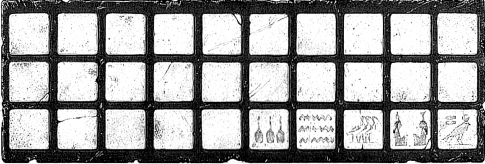

2.4 Functional game families

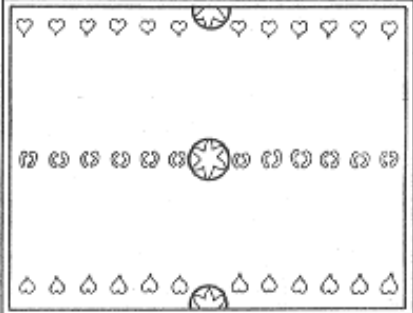
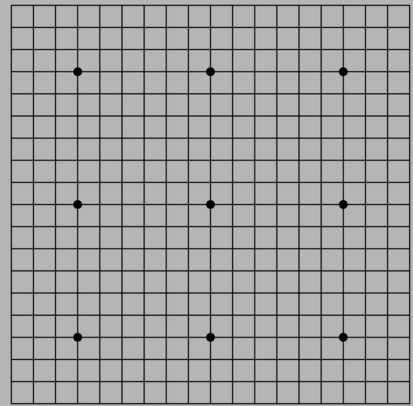

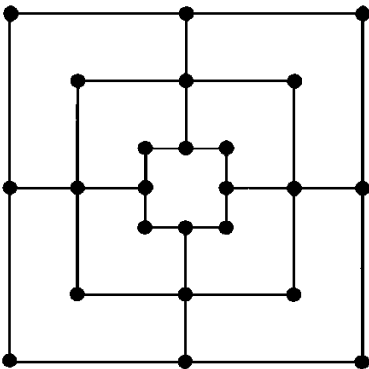
The list of ancient games used in this research does not pretend to be exhaustive, but wide and varied enough to cover the full spectrum of board gaming possibilities in ancient times. The selection was made choosing the most cited ancient board games in the selected bibliography, then adding those that were morphologically similar or contemporary. During the research, when too similar games could be cited, we will only mention one of them, unless special features of one variant are needed to illustrate the working example.

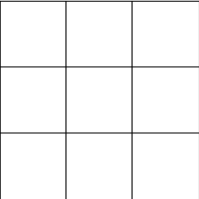
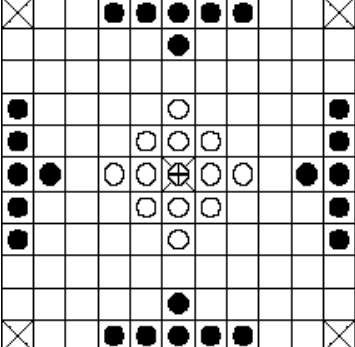
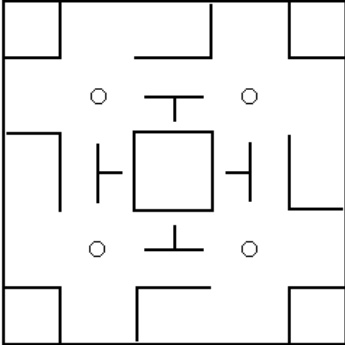
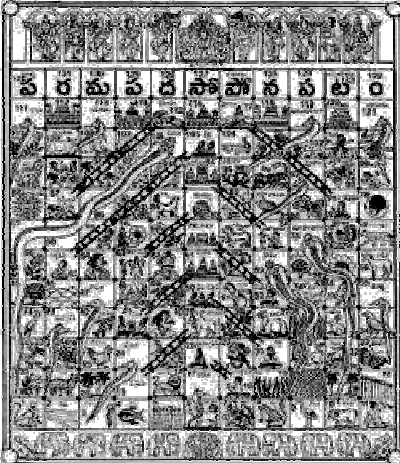
Only a brief excerpt of the rules is provided as a memento. To further know about the rules, history and variants of these games, consult BALAMBAL, V. 2005,

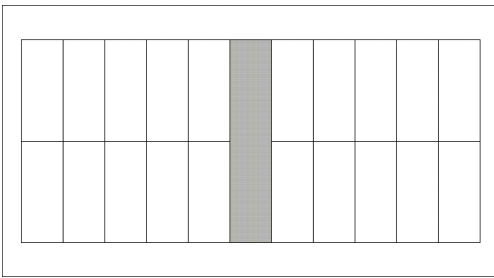
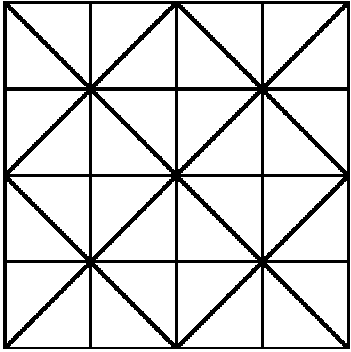
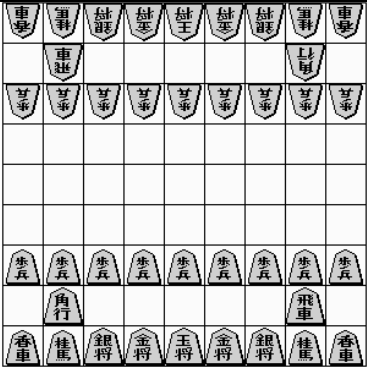
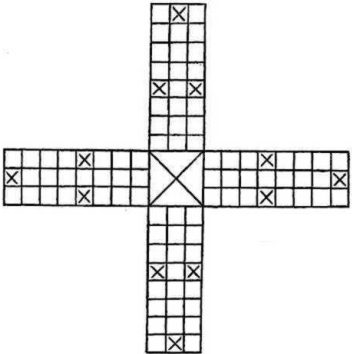
¹⁶ For more information on the subject see DE LA TORRE, R. 1985A, DE LA TORRE, R. 1985B, BERGER, F. 2003, BERGER, F. 2004

BELL, RC. 1979, CAZAUX, J-L 2003. COMAS, O. 2005, CULIN, S. 1975-1975-1991, LHÔTE, JM. 1994-1996, MURRAY, HJR., 1913-1951.

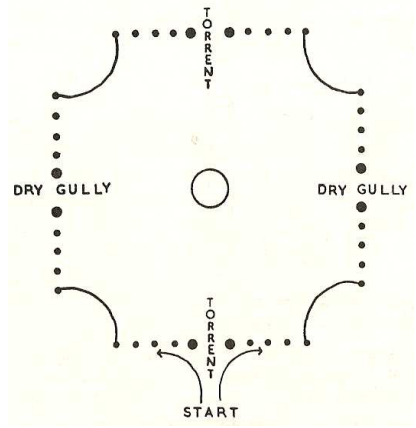
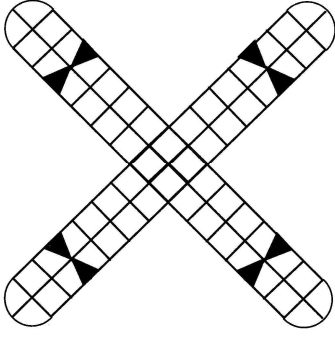
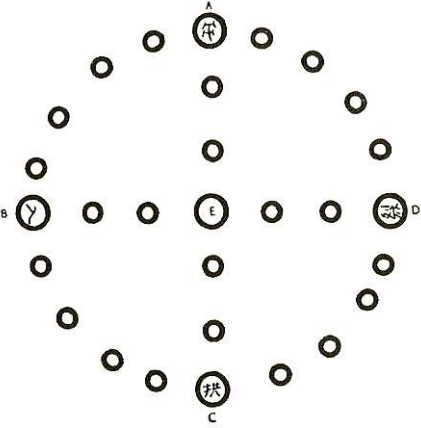
Name	Board	Rules excerpt
<p>Game of Ur</p> <p>Twenty squares</p>		<p>Incomplete rules known. Pieces must exit the board via the center row (coiled as the T section, or straight). They are moved through to the throw of pyramids/sticks. Rosettes are good spots.</p>
<p>Fifty-eight holes</p> <p>Palm tree game</p>		<p>Exact rules unknown. Most probably, players must bring their pieces to the top hole. They move throwing marked sticks. Rosettes are good spots.</p>
<p>Senet</p>		<p>Exact rules unknown. Proposed rules are to exit the pieces through the marked squares with the throw of sticks. Some of these marked squares are good, some bad.</p>
<p>Mehen</p>		<p>Exact rules unknown. Most probably, the objective was to reach the center and to come back out. Movement is unknown, but balls and lion-like pieces have been found near the board.</p>

<p>Duodecim scripta Tablas Backgammon Sugoroku</p>		<p>Players try to move out all their pieces from the board. They move according to the throw of two or three dice. Pieces can be captured and have to start again.</p>
<p>Weiqi Go</p>		<p>Black & white alternate placing stones over the board. The player who controls most of the board when both players decide to pass is the winner.</p>
<p>Mancala games</p>		<p>The basic object of these games is to capture more pebbles than your opponent captures or to block him. The basic movement is “sowing”, take all the seeds in a hole and spread them one in each of the following holes.</p>
<p>Merels Mill Nine men’s Morris</p>		<p>Players alternate entering pieces into the board. When all pieces are in the game, they can move from one intersection to another. If a player aligns three of his own pieces, he can capture one enemy piece (not part of an alignment).</p>

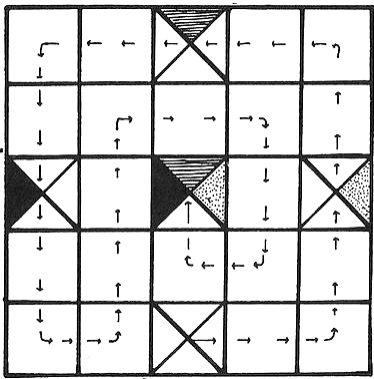
<p>Three in a row</p>		<p>Players alternate placing pieces on the board. The first player to achieve three in a row wins.</p>
<p>Hnefatafl</p>		<p>The white king in the central square has to escape to one of the four corners. Black soldiers have to capture the white king. Pieces move orthogonally and use the custodian capture.</p>
<p>Liubo</p>		<p>Rules unknown. Apparently, pieces move around the board following a certain pattern, with the throw of six sticks.</p>
<p>Moshka-patamu Paramapadam</p>		<p>Players alternate throwing a die and moving the indicated squares following the path. Landing on a ladder bring you up. Landing on a snake, brings you down. The first to reach the top is the winner.</p>

<p>Penta grammai</p>		<p>Reconstructed rules. Players move round the board following the throw of dice, trying to eliminate their opponent's pieces. Pieces in the "sacred line" cannot be killed.</p>
<p>Alquerque Draughts Bagh-chal Seega Fanorona Totolospi (I) ¹⁷</p>		<p>These games are won by capturing all the enemy pieces or by blocking any possible movement. Pieces are captured "jumping" over them to a free space.</p>
<p>Xianqi Shogi Chaturanga Shatranj Chess</p>		<p>Basically, different versions of Chess. The winner is the player who checkmates the opposite "king" piece. Each piece has different movement capabilities.</p>
<p>Pachisi</p>		<p>Four players try to move their own four pieces to the center of the board. They move according to the throw of cauris or long dice. Pieces can be captured and have to start again.</p>

¹⁷ There are two different games with the same name. This one is the game appearing in BELL, RC. 1979: 53 and LHÔTE, JM. 1996: 512, with a lot in common with Alquerque.

<p>Zohn-ahl</p>	 <p>The diagram shows a square board with a path of dots. At the top and bottom are 'TORRENT' markers, and on the left and right sides are 'DRY GULLY' markers. A 'START' marker is at the bottom center. A central circle is also present.</p>	<p>Both players have to bring their pieces round the board in opposite directions. The four marked spaces (torrents and dry gullies) are dangerous spots. Pieces advance with the throw of stick dice.</p>
<p>Patolli Totolospi (II)¹⁸</p>	 <p>The diagram shows an X-shaped board with a path of squares. Black triangular markers are placed on specific squares along the path.</p>	<p>Exact rules unknown. Both players have to bring their pieces round the board in opposite directions. The black marked spaces are dangerous spots. Pieces advance with the throw of marked beans.</p>
<p>Nyout</p>	 <p>The diagram shows a circular board with a path of dots. Four starting points are labeled A, B, C, and D, each with a small icon.</p>	<p>Players have to move their pieces round the board. These pieces move through the throw of stick dice. When a piece strikes another, the last has to start again.</p>

¹⁸ This is the game that appears in BELL, RC. 1979: 5 and CULIN, S. 1975: 161. It looks more like Pachisi, even though the exact rules are unknown.

<p>Thaayam (5x5) Ashta-kashte Siga (9x9)</p>		<p>Players move their pieces round the board, following individualized paths, trying to reach the center. Pieces are moved with the throw of stick dice, and can be killed and sent back to the start. Here only the white (yellow) path is shown.</p>
--	---	--

After the list of games, we would now review the classical classification of board games in order to find a classification more suitable for our symbolic analysis. The proposed classification is based on their general underlying game mechanics, separating the actual games’ rules in a certain period of time (that we are not discussing in this research), from the game itself as a whole, because that is the only thing that we need to apprehend the symbolic charge behind the game.

These new families of games try to flee from the “representative” nomenclature and classification that Murray introduced in his book *History of Board-Games other than Chess* (MURRAY, HJR. 1951: 4-5). As we will see in further chapters the labels “race games”, “war games” and “hunting games” used by Murray are completely arbitrary, even though Murray speculation was that they really were copies of human activities. When Murray adopted this classification, he was convinced that “games are [based on] the early activities and occupations of man –the battle, the siege or hunt, the race, alinement, arrangement and counting” (MURRAY, HJR. 1951: 4). However, as some have discussed (SCHÄDLER, U. 2005) this idea is based on the “colonialist” prejudices and obsolete anthropological ideas proposed by Taylor. This way of thinking implies that primitive cultures in a first stage transform their daily activities

into board games, until through the passing of time, they are “freed” of this relationship and they can develop real “abstract” games. We will further discuss this idea in the chapter dedicated to the main research of this work.

In order to divide board games into families based on game mechanics, they are sorted according to a basic question: “what are the steps that should I take in order to win?”. Even though reaching the winning position is the goal of every board game, the path that leads to that goal differs in great measure, conditioned by the rules of the game. It all depends on the strategy used to move your pieces and the decisions taken during the game. Each turn, these decisions are two:

- 1) Which piece should I move/place?
- 2) Where should I move?

We think that these are the basic questions behind any pursue of the goal. Any tactics or long-term strategies depend on the correct answer of these questions.

2.4.1 Path games

The first big family includes games such as Twenty Squares, Senet, Fifty-Eight Holes, Tablas and Pachisi. Fixed path board games, or simply “path games”, emphasize the first question overall. This kind of games is based on a uni-dimensional movement that follows a fixed way or path. Pieces usually start in the same conditions (in or out of the board) and move in one direction, along the path. The sense of play can be the same for all players (like in Pachisi) or opposite (like in Backgammon). Different paths for different players are possible, but usually they share a common zone where pieces can interact (that

is, they can capture or be captured). Lateral movements are unthinkable because they would mean that there is more than one path to the goal.

For movement, always a chance implement makes the amount random. The only possible degree of freedom for the player is to choose what piece is going to move next. So when pieces are moved by throwing a chance implement the question about “where to move” is answered not by the player but by the game mechanics themselves. As there is only one path to follow and no direction changes are possible, the only decision left to the player is to which piece (or pieces) should apply this throw¹⁹. Usually movement is given to just one piece.

Pieces are captured by landing on the same square and captured pieces are not out of the game but return to the beginning of the path. Sometimes pieces can share the same square (in most of the cases because they belong to the same player).

2.4.2 Calculation games

These are basically Mancala games, in all their variations and complexity, emphasizing the second question. Mancala games are played on a circular path that winds and foils itself in a number of rows of holes. The particularity of Mancala games is that pieces (usually called seeds) do not belong to any player, but the holes do. In fact, pieces are not individualized in any way, neither in shape nor in color, being completely equivalent to each other. The number of seeds in each hole gives their value and strategical weight in the game. Therefore, the question of “which piece to move” is not as interesting as where to move that piece. As there are not any chance implements dictating

¹⁹ Note that some games don't even have this possibility because there is only one piece per player, like Moshka-Patamu.

how many holes must the player move, the decision is basically left to the player. We must note that the sowing movement is tied to the number of seeds in the hole, as it is capture. In order to achieve the goal of the game, both players have to think where they are going to place their seeds in order to capture or protect them. Therefore, the positional arrangement of the pieces is the key, and it is based on the management of numbers and calculus. The objective of the game differs from game to game but in most cases is either capture a higher number of seeds than your opponent is, or blocking your opponent so he cannot play anymore achieving a special board configuration.

Even though the variety of Mancala games is impressive, we will not delve into its variants but treat them as a whole. The basic elements of play (seeds) are common to all variants, as colored pieces and random implements are to path games. Even though boards differ greatly in the number of holes all share the concept of “hole” and the seeding movement. These common elements would be the features to have in mind when talking about “Mancala games” as a whole.

2.4.3 Spatial games

In these games moves comply with well-defined rules of play that usually exclude intrinsic factors of chance, such as dice. Each player has “perfect information” as to all past moves, the current position, and all potential future positions. Perfect information of past movements is a matter of memory or notation, but future possibilities are subjected to the ability to “project” own moves and predict the opponent’s moves. Even though we could call them “strategy” games, because it is by definition a plan of procedure based on the projection and prediction of play, in fact almost every board game has a

“strategy” (even those with chance implements) so we have preferred to call them spatial games.

We call them spatial games because in order to achieve the goal, the player needs to ask himself a combination of both the proposed questions. Not only pieces are differentiated for both players but also the decision of where to move is not only uni-dimensional but also bi-dimensional. The other two families work in an (almost) uni-dimensional space, but in this family, two dimensions must be taken into account. Every single piece, either for movement or for placement, is not only working over a line or path but in a plane. In most of these games, the player has a choice of row and column to have into account. So he not only has to choose which piece to move, but to what square it would go. Both “which” and “where” must be answered.

Spatial games include a wide spectrum of board games, which share basic procedures and general rules. We could sub-divide them into three categories: blocking games, alignment and zone games and bi-dimensional capture games.

Blocking games start with the pieces on the board. The objective of the game is to maneuver the pieces in order to achieve a special state of the board in which the opponent cannot move. In these games, there is no capture: the number of pieces remains the same from the start to the end of the game.

In alignment and zone games, the board starts empty and the players enter their pieces anywhere on the marked spaces of the board. Pieces do not “move”, or do it in a very limited way. The objective of the game is to achieve a special state of the board (an alignment of a number of pieces, or control over a bigger zone). Captures in these games are achieved by aligning a number of pieces (three or more) or by surrounding them.

Bi-dimensional capture games share two basic features: a greater degree of piece freedom and a goal based on capture. This greater degree of freedom is possible because the movement of the pieces is no longer limited to a path, but to a field. This bi-dimensional movement forces the player not only to choose which piece to move but in which of the possible directions. Pieces start always on the board and two pieces never may be on the same square (even if they belong to the same player) except to “upgrade” them into one piece. Capture rules in these games varies in many ways. Some games, like Shogi, Xian-qi or Chess share the same capture method. The particularity of this way of capturing is that in order to capture a piece an enemy piece must occupy the same square with an exact movement and then the captured piece is removed from the game.

Another possibility is the “custodian capture”, used in games as Tafl or Latrunculi. In this kind of games, pieces move only orthogonally along the board. The capture mechanic consists in placing an enemy piece between two of your own pieces. That is achieved by leaving one piece adjacent to the enemy and “enclosing” it from the opposite orthogonal direction in any subsequent move.

Finally, we find another kind of games that share their way of capturing pieces. Bagh-Chal, Draughts, Alquerque and many other games use the “jump over” method of capturing. All these games are played on squared boards or just intersecting lines. The game evolves on a grid, where pieces move in the intersections of lines or of rows and columns. The freedom of movement is limited to movements along the imaginary lines between the squares/points. In some games (Draughts) only diagonals are permitted, but in others (Bagh-Chal) pieces can also be moved orthogonally. The objective is to capture a

number or all of the pieces of the opponent, so he is unable to play or, on the other hand, blocking their moves so they cannot capture any more. Pieces capture each other by jumping over to a free space adjacent to their objective, but they never fall into the previously occupied space.

3. BUILDING A THEORETICAL MODEL FOR ANCIENT BOARD GAMES ANALYSIS

In the previous chapter, the material object of the research is defined. However, when we were about to start the analysis of the key symbolic elements in the selected ancient board games, we found that there was not a clearly defined theoretical frame to do so.

Symbolism, as we wanted to treat it, is a cross-cultural reality, as many prominent researchers of the last century have brilliantly manifested, showing the continuity and universality of a common legacy, that J.Olives called “classical-traditional thought” (OLIVES, J. 2006: 22-24). C. Jung, A. Coomaraswamy, R. Alleau, R. Guénon, JE. Cirlot, M. Eliade, G. Champeaux, S. Sterckx, among others have offered through their works, empirical anthropological and philosophical data, based on classical, traditional and archaic sources and authors, which helped to theorize and somehow “systematize” the whole spectrum of symbols. All these authors greatly exemplify what R. Guénon called “traditional studies”, including anthropology, history of thought, history of religions and deep psychology. These studies deal with the conscious or unconscious continuity and systemic coherence in space as in time of a symbolic corpus related to cosmology, transcendence and everything spiritual (CIRLOT, JE. 1997: 20).

Then, being coherent with this lineage of thought and research, we found two main approaches helping to define our theoretical model: symbolic hermeneutics and comparative studies. Finally, we theorized the notion “traditional cosmological symbolism” as the symbolic basis for our analysis. This frame of mind was the key to understanding the similarities between

games from very different cultures, relating them to the principal symbolic structures of traditional symbolism.

Recognizing the perennial value of universal symbols and myths all along the classical-traditional thought, has been a real change of paradigm. This change of mentality happened mainly, as Olives explains, in the second half of the last century, when the progress of the anthropological studies, traditional studies and history of religions allowed a better understanding of archaic cultures. The scientific world started to rediscover the intellectual and spiritual human interest of these “primitive” cultures, taking down the prejudices of superstition that myth and symbolism had. One of the main improvements in this field of research was the recognition of the importance of the mythical-magical-religious language, and its incredible value in the kind of research that we are conducting (OLIVES, J. 2006: 21-22). With the essential works of these authors, we will approach this interesting subject from a scientific and rigorous point of view. However, as this field of scientific research is relatively new in other sciences standards, and is sometimes still seen as a marginal or even esoteric subject, we found appropriate to introduce the basic theoretical premises in which this research is based on.

3.1 Symbols and symbolism: analogical thought

The art of writing, as we know it, began no more than five thousand years ago in Mesopotamia and Egypt with those who established the first conventions for organizing visible markings into a writing system. It possibly began because of the burgeoning needs of civil accounting. Around the fourth millennium BC, the complexity of trade and administration outgrew the power of memory, and writing became a more dependable method of recording and presenting transactions in a permanent form (ROBINSON, A. 2003: 36). Even though, a much longer history seems to be lying behind the geometrical

symbols conforming what would be used as letters or hieroglyphs. In order to find their origins we have to go back into the Paleolithic, when people drew pictures on the walls of their dwellings. From there, geometrical symbols have been used by humanity during millennia as transporters of sacred messages, auguries and knowledge that our ancestors tried to perpetuate. In fact, even before any known theology, speculation or mythical elaboration we still find schematic elements and graphisms that we can call symbols (RICOEUR, P. 1969: 285). Conquest of alphabet came to alter the traditional way of transmission, making these huge amounts of elemental geometrical symbols that required a significant mnemonic effort less useful (FABREGAS, X. 1987: 100-101). Nevertheless, while it is clear that the development of writing as a means of communication represented an advance over the conventions of symbolism for trade and civil accounting matters, it is also clear that it never completely substituted symbols in other fields less oriented to “quantitative” results, such as religious practices (ELIADE, M. 1987: 198).

When we study the first geometrical symbols available, we go far beyond what we know as history. These recurrent and ever-present symbols (circles, crosses, spirals, swastikas, labyrinths...) were used by our ancestors before writing was ever needed (REVILLA, F 2007: 56). According to Revilla, when man started symbolizing was most probably due to one (or all) of these reasons: panic, awe, alarm or surprise, something affecting their survival or maybe something too big or too powerful to be understood or controlled.

That means that sometime during their lives, one of them was awe struck about something that happened sometime. This glimpse into the unknown, when he first was aware of the magnitude of the celestial vault, or the powerful energy coming from the sun, or saw something destroyed by a lightning bolt, made him felt really vulnerable. These first sensations, based on

fear or amazement, are called “pre-symbolic intuitions” and could be, according to Revilla, the germ of the first symbols (REVILLA, F 2007: 58). These symbols are “*el más antiguo cantar*” that sings about nature, the sky, the pole, the cardinal directions, metals, colors, planets, luminaries, etc. (OLIVES, J. in CHEVALIERJ. & GHEERBRANT, A. 1999: 11)

In essence, the nature of the symbolic process consists in the fact that one thing, usually concrete and particular, stands for something else, usually abstract and generalized. This relationship makes the first thing a trigger or referent for a set of habits or thoughts associated with the referent (ELIADE, M. 1987: 204). While the symbol must be a clearly perceptible phenomenon or a physical object, there is no reason for its referent to be such, so it can be an abstract idea such as limit, a feeling like danger, a particular deity or a universal meaning. Almost anything can be a symbol, but it has to relate somehow to what it represents, not physically (because that is usually impossible) but conceptually. As Olives explains: “*Los símbolos toman la forma de imágenes, gestos, sonidos, músicas, acciones, historias sagradas, fórmulas, manjares, bebidas y aromas.[...] El símbolo no es más que un soporte material, pero está cargado de eficacia por tener una forma análoga a la idea o energía supraformal que él se encarga de atraer y transmitir.*” (OLIVES, J. 2006: 25). Another good approach of what we would call “symbol” in this research is given by Paul Ricoeur, putting the stress on the distinction between its literal aspect and its transcendental, directly inapprehensible, signification: “*J’apelle symbole toute structure de signification où en sens direct, primaire, littéral, désigne par surcroît un autre sens indirect, secondaire, figure, qui ne peut être appréhendé qu’à travers le premier*” (RICOEUR, P. 1969: 16). Sociology and linguistics study the symbol as a mediator between men and do not see in it anything but a convention. We present the symbol as something more, related to the *anamnesis* explained by Plato (OLIVES, J. in CHEVALIERJ. & GHEERBRANT, A. 1999: 11)

These symbols can be articulated in a coherent “language” that can be used in several levels of significance. Erich Fromm speaking about the roots of symbolic language (FROMM, E. 1989: 15-24) separates three gradual levels of symbols: conventional, accidental and universal.

The first level is the simple acceptance of a constant connection, rid of any natural or optical basis. This is the case of signs used in industry, mathematics and other fields requiring complex operations. These like marks have a conventional meaning and are used in the place of words or to represent a complex notion. For example, in using the word “table” to represent a table we cannot see any physical similarity between the letters T-A-B-L-E and the actual physical object. Another example would be country flags. They are only a convention, a relationship that we learn at school.

The second division comes from transitory circumstances, and it is due to associations caused by casual contact. The accidental symbol differentiates from the conventional symbol because it cannot be understood or used by a foreign person if we do not explain the story behind that particular relationship. These symbols are rarely used in myths because they need of an additional explanation, but are very frequent in dreams. That would be the case of the relationship between the swastika and the Nazi regime in Germany, only meaningful and understandable if the concrete historical fact is known. If not, there are any other available hints that could relate the Nazi regime with this traditional cosmological symbol.

Finally, there is the third group, which is where the symbols studied in this research are. This kind of symbols is characterized by the fact that there is an intrinsic relationship between the symbol and what it represents (CIRLOT, JE. 2004: 37). So our “symbols” would be signs that are constituted as such merely

or mainly by the fact that they are used and understood as such. Let us take the example of fire. When we talk about it we think of fascination, we describe its intimate visual and tactile experience: power, energy, lightness, movement, grace, light, heat, happiness... In other words, what makes a sign this kind of symbol is not in the first place any quality considered inherent in a particular phenomenon but rather a particular form of subjective common attitude centered on it (ELÍADE, M. 1987: 204-205). What makes these symbols universal is that the lived experience, the inner reaction that that specific symbol provokes in everybody, is shared worldwide as a human constant (FROMM, E. 1989: 19).

The observer chooses a piece of objective reality and suddenly makes it subjective, full of significance, relating it to a psychological or transcendental state. Through symbols, one tries to explain to other people his highest thoughts, his deepest abstract ideas about the world and about himself. That relationship between the symbol and what does it symbolize can be explained as a bond. While using symbols, one rebinds what is “above” with what is “below”: man with God, the Sky with the Earth, interior with exterior, values and praxis (OLIVES, J 2006: 24). The function of symbols is to relate two different reality levels: one directly visible and perceptible and the other mysterious, interior, unknown. They have the function of revealing and transmitting metaphysical ideas to our ordinary life. The symbolic image is not an example (an external relationship between two objects or ideas) but an internal analogy, which is a necessary and everlasting relationship that moves “something” in the human psyche. As J.E. Cirlot points out: “*Este lenguaje de imágenes y de emociones, [...] habla de las verdades exteriores al hombre (orden cósmico) e interiores (pensamiento, orden moral, evolución anímica, destino del alma)*” (CIRLOT, JE. 2004: 37).

Symbols are a *lingua franca* that lets us all talk about those things in life that can not be explained with conventional language and definitions. They are directly connected with what Jung called “the unconscious collective mind” (JUNG, C. 1997: 55), and come from everything we know about the world around us and about ourselves. One of the greatest virtues of the human brain is the capacity to relate concepts to achieve better understanding and that is how symbols work. The symbolic shapes play with mental structures, moving the whole psyche, without limiting the rational part. Jean Chevalier calls a symbol an *eidolo-motor* that is “something which makes imagination work” (CHEVALIER, J. & GHEERBRANT, A. 1999: 19), and Ananda Coomaraswamy calls symbolism “the art of thinking with images” (CIRLOT, JE. 2004: 36). In fact this symbolic language is the nearest thing that we have to a universal language²⁰, but the fact is that it was set apart as man started to reject his cultural roots and myths as something obsolete and unfashionable (FROMM, E. 1989: 20-21). Its priority in front of any other way of signification is recognized by all who admit that there is a possible way of seeing the world other than the purely rationalistic (OLIVES, J. in CHEVALIERJ. & GHEERBRANT, A. 1999: 9). In remembering and recovering this religious-mythical-symbolic view of the world, we again become able to understand this universal language, ever-present in our lives and cultures. A Vedic text summarized by Guénon clearly explains the role of symbols in life: “...son como el caballo que permite realizar a un hombre un viaje con más rapidez y con mucho menos esfuerzo que si debiera hacerlo por sus propios medios. Sin duda, si ese hombre no tuviese un caballo a su disposición, podría a pesar de todo alcanzar su meta pero, ¡con cuanta dificultad! [...] Lo mismo sucede con los ritos y símbolos: no son de absoluta necesidad, lo son en cierto modo, por una necesidad de conveniencia en función de los condicionantes de la naturaleza humana” (GUÉNON, R. 1995: 18).

²⁰ We can even talk of “symbolical dialects”, where each culture adds or subtracts some of the traits of the universal symbol. Even though, the central idea, the main symbol, remains understandable.

Repeatedly we would have to deal with the polyvalence of the traditional cosmological symbols, base of all archaic cultures. Far from being a problem, this is part of the interest of the study of symbols: the coexistence of senses. The synthetic structure of traditional thinking finds in symbols an excellent channel of transcendent expression, because it is able to unify different levels of reality without “neutralizing” them (ELIADE, M. 1993: 30). This polyvalence of the symbol makes the coexistence of senses possible, and helps to introduce the next concept: analogy.

The most important concept to recover and fully understand the symbolic language is the analogical relationship between two terms, the correspondence between the material support and the immaterial idea (or ideas) that each symbol binds. We must stress that this immaterial idea, in the framework of traditional symbolism is more than a mere concept: as Olives points out, it should be better called “state of being”, “intuition of transcendental reality”, or even “presence of God” (OLIVES, J. 2006: 25-26). By philosophical definition, “analogy” stands as a relationship between two facts or propositions that have a similitude or at least an equal element. Therefore, there is an analogy between unburying something and unsheathing a sword, between an elevated thought and the height of a tower (CIRLOT, J.E. 1991: 20). Nevertheless, as Rene Guénon better explains, the true symbolic analogy is not between tangible facts but always between the phenomenic reality and the spiritual level or, one can say, the Platonic real and ideal worlds (GUÉNON, R. 1931: 95-97). Having this in mind, we can understand why Guénon says that the symbol is always inferior to what it symbolizes, and that what is “above” can only “remember us of” something of what is “below”, never symbolize it (CIRLOT, J.E. 2004: 37).

While natural science establishes horizontal relationships between groups of beings that share some traits, symbolic science tries to find vertical bridges

between objects or ideas that are in a correspondence situation with another analogue object or idea in another reality level. Through this concept we'll talk about the correlation between ideas from two or more signification levels, in an analogical way. This basic idea permeates all the traditional way of thinking and for this reason is a basic assumption in this research. As Cirlot explains: *“El simbolismo se organiza en su vasta función explicativa y creadora como un sistema de relaciones muy complejas, pero en las cuales el factor dominante es siempre de carácter polar, ligando los mundos físico y metafísico”* (CIRLOT, JE. 1997: 21).

All ancient symbolic knowledge is usually reduced to one sentence: “As above, so below”. This phrase comes from the beginning of *Tabula Smaragdina* and embraces the entire system of traditional and modern magic²¹ which was inscribed upon the tablet in cryptic wording attributed to Hermes Trismegistus. All magical and symbolic systems are based in this formula. It is the same idea that permeated all Platonic philosophy, cited by Dionysius Aeropagite “The sensible world is a reflection of the intelligible world”, or by Goethe “What is inside is outside too” (CIRLOT, JE. 1997: 21). Microcosm is analogue to macrocosm, society is analogue to cosmos, structure of cities is analogue to society, man is analogous to cities and so on, *ad infinitum*. There is a complete parallelism between the realms of Heaven and the Earth where we live in every archaic culture. That means that countries, rivers, cities, and everything that we see, they all exist in certain cosmic levels, and their earthly image is nothing but a pale and imperfect reflection of the cosmos (ELIADE, M.

²¹ We should note here that “magic” as we understand it in this research has neither the superstitious nor the trickery or illusionism vulgar senses that people gives to the word. It is more than the practices intending to move occult forces of the world or higher powers in order to obtain some kind of physical benefit. When we talk about “magic”, we have to visualize it as a whole cosmivision, based in the micro-macro cosmic analogy between man and its surroundings. We have to think about it as ancient wisdom about man, society and cosmos in a spiritual and transcendental level rather than as a practical and incomplete proto-science.

1993: 24). We can also recognize this same kind of framework permeating all the Platonic philosophy.

3.2 Symbolic Hermeneutics & Comparative studies

Hermeneutics are the science of interpretation, of finding what is hidden. Their name comes from the Greek *ἑρμηνεύειν* (to interpret, to explain). A noun formed from this term, Hermes, was the name of a Greek god, the messenger, the representative of the gods²². Usually the word hermeneutics is used to talk about the interpretation of written texts. However, as many authors have pointed (RICOEUR, P. 1981: 145-149) any cultural manifestation that “speaks” in some way (not only texts) can be interpreted through hermeneutics. Therefore, it is also a good tool to study art, music, images... and of course, symbols, as a specific kind of images (BOURGEOIX, P. 1975: 134). This philosophical researching tool can be used in order to explore, document and try to understand everything that has to do with the interpretation of human life, creations and relationship with his surroundings. So then, if we want to understand the real meaning of cultural manifestations, hermeneutics can (and must) be applied to our everyday life. Therefore, using symbolic hermeneutics to study symbols in board games is a perfect match because: *“El enfoque hermenéutico profundo debe reconocer y tomar en cuenta las maneras en que las formas simbólicas son interpretadas por los sujetos que comprenden el campo sujeto-objeto. En otras palabras, la hermenéutica de la vida cotidiana es el punto de partida primordial e inevitable del enfoque de la hermenéutica profunda”* (THOMPSON, J. 1993: 306).

José Antonio Anton (ANTON, J.A.:1988 115-123) and other many contemporary authors have explained this typically traditional method to interpret symbols

²² Their initiates were introduced to a kind of philosophical superior knowledge called “Hermetic mysteries”. Those mysteries were unknown to anybody outside the circle of acolytes, and that is the reason that now anything hidden, closed to the outside, is called “hermetic”.

without falling into relativism or rationalism. In short, it combines both deep study and a posterior meditation to find the needed analogies. The knowledge about man and cosmos that is achieved rationally has to be always passed through the sieve of self-knowledge. Symbol, as such, helps man into knowing himself. So studying the interpretation of symbols passes through an identification process. Knowing symbols, myths and rites is only possible when the subject melds with the object and recognizes them in himself. Only in this way, the knowledge obtained through the interpretation can be transmitted and explained with a new perspective and interesting ideas. One creates new knowledge starting from the old one, once interiorized and recognized. In this way, tradition is brought back to life, reinterpreted. That makes the analogical language a vehicle of both self-knowledge and knowledge about the world at the same time. Symbols themselves explain the method that slowly introduces the researcher to knowledge. They go beyond appearance and literality, and reach what is hidden and spiritual. They are at the same time manifestation and concealment because symbolic reality shows in hiding itself. Hermeneutics breaks the symbols and gains access to what is not said, through analogy (ANTON, J.A. 1988: 123).

Symbols, as we have seen are not static, but always widening their meanings. In such a mobile terrain, any study concerning symbols has to be well founded. However, as Cirlot points out: “*El orientalismo, la historia de las religiones, la mitología, la antropología, la historia de la civilización, el arte, el esoterismo, el psicoanálisis, las investigaciones simbólicas nos han facilitado un cuantioso material para la corroboración de lo ‘psicológicamente verdadero’ y la unidad esencial mencionada, que se han explicado también, no sólo por el fondo común de lo psíquico, sino por el de lo fisiológico, dada la importancia de su forma y actitud, de las posiciones factibles de sus miembros, con los elementos más simples de la dialéctica simbolista*” (CIRLOT, JE. 1997: 20).

Their interpretation becomes possible through the knowledge and ulterior meditation about the traditional and natural symbolism. So, if we base our research on traditional symbolism without deviating into its superstitious and esoteric aspects, we would find a common coherent corpus of information good enough for a scientific research.

In some way, we can relate the art/science of symbolic hermeneutics to Plato's *anamnesis*. That is because in some way, we already know the answers that we are trying to find, at least in an intuitive, supra-rational way. The job of the researcher is not only outside, studying the object, the symbols as such, but also inside, in order to find the analogies and possible relationships. When we study such a field of knowledge, the researcher cannot be only a pure observer. He must "incarnate" the symbols in order to understand them, and that requires a great deal of subjectivity.

The first step is the recognition of symbolic elements and their meaning. One has to study the classical-traditional thought in order to know its key elements and patterns. As Cirlot explains, this "tradition" is the conscious or unconscious continuity and systemic coherence in time as in space of some symbolic transcendental ideas expressed through geometrical or pictorial patterns. These ideas configure the backbone of each and every culture, bringing us back to the very essence of human perception of the world and of man himself. Some authors try to explain it as a spontaneous surfacing in distant communities without historical contact, as others rely and believe it as the solely result of cultural transmission (CIRLOT, JE. 1997: 20). In this research, we will not discuss if this coherence manifested itself in space and time as a primogenital focus or it comes from simultaneous appearances but just study its results under the name "tradition". We want to separate here everything symbolic and traditional, which always points to and relates to transcendence

and higher instances of consciousness (that is, our focus of interest), from the subconscious, always related to states of inhumanity (GUÉNON, R. 1995: 39). This symbolic corpus has to be studied and analyzed, extracting its essential manifestations. Then, with the help of symbolic hermeneutics, it will be applied to the concrete object of the research in order to be able to recognize these essential patterns and symbols in it. Once studied and assimilated, traditional philosophical ideas can be seen in board games in symbolic form, both in their shape and in their rules. The previously acquired symbolic knowledge is recognized in the study object, in this case, in board games.

The fruits of our research will be on the first place the enrichment of the symbolic studies bringing information from a shallowly studied object as games. This new point of view will improve our symbolic knowledge illustrating it with new examples and interesting parallelisms. With this new conceptual bridge, new analogies become available, enriching further researches concerning symbols and games (as a whole or as separate subjects). In this way, board games become a way to improve the understanding about man and cosmos.

The approach to symbolic interpretation proposed in this research project is to “play” with traditional cosmologic, philosophical and anthropological concepts from a speculative and analogical point of view centered on ancient board games. This is a new point of view in the study of board games. That does not mean that we are trying to prove that board games are solely containers of symbolic tradition, denying their playful component. On the contrary, we see in board games both the playful and speculative aspects, therefore being the perfect cultural manifestation in which to recognize traditional symbolism. We are not negating in any way the literal, rational or historical value of the symbols or the games that we are studying. We are

discussing a different matter, which would lead to a completely different object of study: *"En effet, on a trop souvent tendance à penser que l'admission d'un sens symbolique doit entraîner le rejet du sens littéral ou historique"* (GUENON, R. 1931: 11).

The kind of research that we are conducting is not purely empirical but conceptual. The material object of our research (symbols) needs a wider speculative method capable of establishing analogical links and working in an intellectual territory full of non-excluding oppositions. Nevertheless, this research is not pure speculation because the symbols, which are behind classical-traditional thought, are ruled by their own logic and inner coherence. The associative chains that let us study symbols are not arbitrary and, as we will see, one has to know their interpretative keys by heart and always base his speculation on classical-traditional thought as the first reference point.

Therefore, to apply symbolic hermeneutics to the study of symbols in board games we will, first of all understand and have in mind the main symbols of traditional cosmological symbolism (primal geometrical and key anthropological). Second, we will look through the selected games for the presence of these symbols (directly or indirectly). Third, we will see if the appearance in the game of these symbols is coherent with their symbolic meaning according to traditional cosmological symbolism. When these three steps have been repeated for each of the selected symbols, the research will be concluded.

To further refine the results of the research project, we will use comparative studies. Studying games in an isolated way is a good first approach to board games, that lets the researcher understand each game in its cultural and historical environment. That is why in the first part of this research, games were not compared to one another, but studied in their context. Besides, for

the symbolic analysis the isolated study becomes insufficient. If we assume the trans-civilizational (or cross-cultural) value of symbols and the universal value of games, clearly we cannot limit the scope of our research to just one geographical zone. Moreover, if we manage to find board games from completely different cultures sharing a symbolic basis, it would help us to prove our hypothesis. That is why this research relies also in comparative studies.

Even though, before talking about comparative studies a very important question must be stated. Nowadays the western civilization has overlapped with other cultures and peoples coexisting in the same territory due to various social processes usually known as “globalization”. Nevertheless, the multicultural coexistence is not possible if not through tolerance and a good knowledge of your own culture. Only from this knowledge, one can start to study and “compare” other cultures and religions without mixing them indiscriminately and therefore devaluating them. This research cannot be based on concrete ideologies but in the study of the deep roots of each culture, and their cultural elements, where we would find the essential parallelisms and coincidences (OLIVES, J. 2006: 114-118). Comparing board games and thus finding the essential traits they share makes us rethink all pre-made ideas that we could have about a particular game, changing and enriching our perspective about it constantly. Now we compare two games from distant places in the world that share some distinctive key symbolic trait we learn both from the similitude and from the differences. The things in common would help us to better understand their symbolic meaning, working as a living example of the common symbolic tradition, while the differences would better show what that kind of game meant for the people who played it as a manifestation of their “symbolic dialect”.

3.3 Traditional cosmological symbolism seen through board games

Traditional cosmological symbolism is the main frame of this research. Under this title, we refer to the fact that there is a cosmological tradition shared to a certain point by different ancient cultures and civilizations. This has been explained in the 20th century by a wide display of scientific literature, as the above referred as “traditional studies”, history of religion, compared religions, symbology, etc. The major part of the ancient cosmology and philosophy is not written as text, but expressed through architecture, cosmography and symbolism. It is through these cultural expressions that one can more clearly see their cosmological conception (ELIADE, M. 1993: 24). In fact, as J.Olives points out, all the archeological and cultural legacy of the archaic and traditional societies can only be fully appreciated appealing to their symbolic message, always beyond peculiarities and trends (OLIVES, J. in CHEVALIER, J. & GHEERBRANT, A. 1999: 11)

When we talk about “tradition” or classical-traditional thought, we are referring to the conscious or unconscious continuity, and to the systemic coherence of the symbolic analogies through space and time in the world. All traditional symbolism is based in the rhythms of nature. The laws of mathematical order and vegetal and animal life are reciprocally permeated. Everything is at the same time an organism and part of a very precise order. So the universality of the symbolic cosmological language is due to the universality in the shapes and laws of nature. That is why some symbols become a “lingua franca” to understand and share the greatest philosophical themes worldwide. Cosmograms, symbolic representations of the world through geometrical shapes, numbers and proportions, can be seen as the universal symbolic language. They are the compendium of these meaningful symbols: the way in which man expresses his view of the world, and that

everybody can intuitively understand. As Guénon explains: « *Les concordances entre toutes les formes traditionnelles représentent, pourrait-on dire, des 'synonymies' réelles ; c'est à ce titre que nous les envisageons, et, de même que l'explication de certaines choses, peut être plus facile dans telle langue que dans telle autre, une de ces formes pourra convenir mieux que les autres à l'exposé de certaines vérités et rendre celles-ci plus aisément intelligibles.* » (GUÉNON, R. 1931: 10). Therefore, no matter what our point of view may be, we would always find in these “traditional” cultures the same cosmovision and the same urge to participate with their lives in the “cosmic” life (ELIADE, M. 1993: 61). The human being feels permanently related to the rhythms of nature, giving him a global vision of himself and the cosmos.

According to Cirlot, the interest of man for the natural rhythms of nature was, between other reasons, due to the appearance of agriculture in the Paleolithic (CIRLOT, JE. 1997: 22). Any agricultural knowledge needs of the calendar to work, because it is based on the regular production of vegetal species, and of course that implies the knowledge of their annual growth, floration and fructification rhythms. Seeding and sowing are directly related to the calendar, that is, with the position of the sun and the stars. It is in this time that the geometrical idea of space, the relationship between sky and earth and the idea of the cardinal directions appear. The importance of some natural numbers and of some shapes as squares, crosses or circles is also related to this concept. That is because of the six cardinal directions representing each of the four directions in the plane, north, south, east and west, plus up and down. The seventh “direction” is the most important, representing the central point of these imaginary lines, where we can see ourselves as in the center of the universe. This distribution of space is symbolically related to the square and to the cube as the tridimensional development of the cross, and it is the basis of the traditional cosmological theory of space (OLIVES, J. 2006: 40-55, particularly 42, 47, 49 and 55). This idea was applied over the territory as a cross,

symbolizing a pentad, four directions and a center, is ever-present in city plans around the world (as seen in OLIVES, J. 2006: 232-264). Therefore, the importance of natural numbers and regular geometry in traditional cosmological symbolism is a key element to this research because it is as universal as games are. As Guénon explains: “... *el empleo del simbolismo de los números, o del simbolismo constructivo, no son en absoluto particulares de una determinada forma iniciática, sino que, por el contrario, se encuentran en todas partes con simples diferencias de adaptación, pues se refieren a ciencias o artes que existen por igual y con el mismo carácter sagrado en todas las tradiciones.*” (GUÉNON, R. 2004: 14).

The rhythmic vibration of nature is seen as the basic pattern underlying everything happening around. Man also sees these patterns in himself, and so he feels even more part of nature, and as he understands himself more and more, so knows nature (and vice-versa). This traditional doctrine is based in the sacred vision of the world, man, and every thing than man knows. Everything in the cosmos and in human life is seen as symbolic, and susceptible of a transcendental experience. Reality, as such, is though as existing in different ontological levels or layers superimposed one to another (OLIVES, J. 2006: 55). In the opposite way that we are used to think, in the ancient and traditional frame of mind there is no mundane world, completely separated from spirituality. Every little event in everyday life is seen as a messenger from transcendence. Society and human relationships are included in this sacred view of the world, as are their activities.

This sacred vision of the world has been progressively lost in the Western world with secularization. From the XIV century (and even before) the general conscience progressively separates from spirituality and relationship with nature and centers into science, and then economy. Religion is reduced to belief and moral, posing a great obstacle to the attempts of recovering its

original sense (OLIVES, J. 2006: 23-25). The traditional doctrine prevalent in religion was rejected in the same way, sometimes reduced to superstition or a naïve vision of science. If we are to study traditional symbolism, we first have to recover this forgotten sacred vision of the world and man. Only in this way we would be able to understand what is behind all these symbols. As Ricoeur explains *“Le moment historique de la philosophie du symbole, cest celui de l’oubli et aussi celui de la restauration: oubli des hiérophanies; oubli des signes du Sacré; perte de l’homme lui-même comme appartenant au Sacré”* (RICOEUR, P. 1969: 284).

The first step to understand the traditional cosmological symbolism and how it works is to let behind our rationalistic prejudices and basically reconfigure the way how we see the world. We have to accept some premises that would give us the interpretation keys to understand ancient cosmovision and the relationship between man and cosmos in the ancient cultures. According to Cirlot (CIRLOT, JE. 1991: 34) these premises are:

- 1) All forms of reality are interdependent. Everything is connected.

This is the first and most important rule in traditional cosmological symbolism, because is the basic axiom over which every other premise is based. “Everything” includes all that exists: man and cosmos. But this connection is not only horizontal but must be seen in a transcendental sense. There is a real and permanent connection between man and the highest level of transcendence. This connection between all levels of reality is basic to understand ancient thought. Even though there is some kind of separation between these levels, there is always a way for man to commune with them.

- 2) In the creation, nothing is indifferent or senseless. Everything that is or happens expresses something meaningful.

As a development of the first point, we must see that as everything is connected (internally and transcendentally), nothing is accidental as we understand it nowadays. Everything has a meaning because it is part of the whole of the cosmos. This could be expressed vulgarly as an expression of “God’s will”, but it can be seen as something deeper, a connection giving meaning to every form of life.

- 3) Everything is serial, and belongs to a category. Similar things tend to go together, and are meaningful because of that.

If we recall the first two premises, this one is trivial. As nothing is meaningless and everything is connected, if two elements are similar in shape, purpose or any other feature this relationship must not be accidental but meaningful. Even more, if you can find a serial correlation (numerical or otherwise geometrical) between elements, you would discover another link.

- 4) These series of things or concepts are related to each other.

Just as an addendum to the last premise, we can say that, because everything is connected, these serial categories can be related level by level. Even though, this is the weakest possible symbolic link available, and often this relationship does not work seamlessly, fluctuating between levels but maintaining the same hierarchy.

To this list we must add some more ideas pointed out by Olives (OLIVES, J. 2006: 92-101) that would help us to exemplify and explain the first four. They emphasize the importance of the figure of man, society and culture in ancient symbolism.

- 5) There is an ever-present analogy between man, community and cosmos.
- 6) There is a geocentric vision of the cosmos, and this vision is centered on man.

As we see for example in the cosmic system of the Confucian order, it comprised the three estates of heaven, earth and man. Heaven and earth communicate through man, symbolically representing the center (GUÉNON, R. 2004: 30-31). It included the realms of human, animal and vegetable life, and the activities, thoughts and emotions in both temporal and spiritual nature. This system regulated natural growth and decay on earth, and the institutions whereby humankind was governed in an orderly manner. Human actions thus provoke comparable reactions in heaven and earth (BERGER, F. 2003: 109). This basic idea of the ever-present relationship between the micro and the macrocosm allows us to clearly relate objects such as ancient board games with traditional cosmology. Being part of the culture, and abstract in nature, board games are a microcosm that “shares” the same symbolic traits that we find in traditional cosmological symbolism (the symbolic macrocosm), allowing the research.

4. REFORMULATION OF THE HYPOTHESES

The first part of the research concluded, the preliminary hypotheses proposed in the first chapter could be restated. The limitation of both the physical and the theoretical study objects allowed us to improve the scope of our first point of view and to reformulate the hypotheses into a new system that we ordered in four levels. First, we postulate the main hypothesis, followed by the general and the specific hypotheses. Finally, we present those of methodological nature.

It is interesting to note that proposing a system of hypotheses in a symbolic research environment is a complex matter. As Olives explains, in humanities hypotheses are latent structures that guide the research process. In the act of formulating them, one already intuitively knows what is trying to demonstrate. Therefore, hypotheses in a humanistic environment are a way to progress in understanding. The research is the process that allows to refine and reformulate these first intuitions into well-thought, coherent conclusions (OLIVES, J. 2007: 58-60).

Main hypothesis:

Ancient board games have, as pointed out by Huizinga, Coomaraswamy and Biedermann, a symbolic or gnoseologic content. This content is in consonance with traditional cosmological symbolism.

General hypotheses:

- Games are an important part of human culture, even though traditionally, the scientific community has not treated them accordingly.

- Ancient board games are not shaped after human activities, but resemble human activities. They are really based on cosmological patterns.
- Ancient board games and their gaming elements have a symbolic and cosmologic interpretation (without negating their ludic aspect). Symbolism of gaming elements is consistent and coherent around the world.
- As board games have a symbolic content, they can easily be related to ancient myths and rites.
- There is a close relationship between the geometrical shape of game boards and the traditional cosmograms (*mandalas*). As *mandalas* refer to both cosmological and anthropological levels, we will find symbolic correspondences with board games at both levels. This will also be related to the idea of a “sacred space”.

Specific hypotheses

By studying these ancient board games, we can discover correspondences focusing on the key themes of traditional cosmological symbolism at two levels:

- Their physical geometrical shapes follow primal geometry: centre, cross, square (or grid) and circle (or spiral).
- Their rules and the act of playing these games, relating to key anthropological themes: myths (hero, challenge and ethics) and rites (*līlā*, spiritual ascension, fate and gambling)

Methodological hypotheses:

- The interpretation of symbols present in board games can be performed by means of symbolic hermeneutics, rooting its theoretical basis in a coherent and consistent knowledge of traditional cosmological symbolism.
- A new classification of games will help to better understand the relationships between different board games.

PART II
KEY SYMBOLIC ELEMENTS IN
ANCIENT BOARD GAMES

1. ON THE SYMBOLIC CONTENT OF GAMES

The first question that arises when studying the symbolic content of board games is how they became the way they are. Why are board games shaped in this way? Why are they square, round or cross-shaped? Earlier authors in the study of the history of board games were divided in their answers. The most significant opposed points of view were those of H.J.R. Murray (1868-1955) and Steward Culin (1858-1929). Murray is considered one of the greatest Chess historians, by virtue of his masterpiece *History of Chess*, published in 1913. This work, while being imprecise and even plain wrong at times, is still unrivalled and has been the inspiration for many Chess historians. When he was eighty-four, he wrote a second book *A history of Board Games other than Chess*, an essay aiming to recover, list and explain (with more or less rigor) board games from around the world (BELL, RC. 1979: 198-200). Culin, on the other hand, was an archeologist who dedicated his life to his passion: games played in foreign cultures. On several field expeditions to America (with the native Indian communities), Japan, China, Korea and India he catalogued every game that he saw and, when possible (he had a profound knowledge of Chinese traditions and philosophy), tried to shed some light on the subject (BELL, RC. 1979: 194-195).

As we have commented above, H.J.R. Murray theorized that some of these “physical” games were the basis of the first board games, and organized his classification accordingly (MURRAY, HJR 1951: 4-5). This initial assumption, the basis of Murray’s classification, has been followed (consciously or unconsciously) by many without question, thereby assuming that “war”, “hunt” and “race” games are a direct copy or abstraction of concrete human activities (such as war, hunting and racing). Nevertheless, this connection cannot be clearly established, even though there are certain resemblances

between the activity they supposedly represent and the rules of the game and shapes of the playing pieces. This major misunderstanding can still be found in modern literature about games, and should be corrected or at least, discussed.

According to Murray, board games are an abstract simplification of human play in which players, instead of acting and moving physically, do an activity that, although simpler, still has, symbolically, all the essential traits of the former. Reality itself (the player and the playground) becomes something abstract (the tokens and the game board). But from the examples we can see that there are no specific activities that could really be identified behind many board games. For example, Chess has always been related to war, and Murray talked about chess as if it were a representation of a real battle: “Two players direct a conflict between two armies of equal strength upon a field of battle, circumscribed in extent, and offering no advantage of ground to either side” (MURRAY, HRJ. 1913: 25). However, even though it may seem that Chess is the representation of a battle, it has been pointed out that in real battles the infantry do not lead the attack, and that they are also able to retreat. Elephants in real battles would meet each other, but cannot do so in Chess. In general, it is said, it is not possible to explain both the arrangement and disposition of the pieces or their movements by reference to realistic warfare (MARK, M. in FINKEL, I. 2007: 152). Moreover, any real proof has been found of the “theme” of these games not being attached to them afterwards (AVERBAKH, Y. in DE VOOGT, AJ. 1995: 17-23). So at least, we have to ask ourselves if these themes were not devised *a posteriori*, based on some obvious but *post-hoc* resemblances (PARLETT, D. in MACKENZIE, C. & FINKEL, I. 2004: 29), without trying to represent an actual battle. The same could be said about “hunt” and “race” games, which have a very weak relationship to real hunting and races.

Murray's idea is obviously related to E.B Tylor's classic anthropological theory of "gradual evolution" (TYLOR, E.B. 1879: 747) which implies that cultures evolve from "savage/primitive" to "modern" (European). Tylor depicts these "primitive" cultures in a constant fight for survival, warring against each other for nourishment and territory. In these cultures, Tylor noted that childish games (we would say, child's play) usually imitated the "serious practices", like "hunt and battle" (TYLOR, E.B. 1871: 65-67). These practices, according to Tylor, are related to early stages in the story of "childlike tribes of mankind". From this, one can see that for Tylor not only children's games but also all games from the more primitive cultures are nothing but "imitation of the serious business of life". In this light, it is easy to see how Murray tries to explain that games were imitations of the "early activities of man" (MURRAY, HJR 1951: 4-5). So it seems that Tylor was the single source for Murray's point of view. On the other hand, Murray never liked to befriend itself with the transcendental significance of games, although he admitted that games showed religious aspects among some Native American Indians (SCHÄDLER, U. 2005: 5-6).

The weakest point in Murray's theory is concerned with these games that are not directly a representation of a clearly distinct specific human activity. Where do these more "abstract" games come from? It seems that Murray's theory relating games to human activity lacks a convincing explanation for the origin of this kind of game. To which specific human activity would Three-in-a-row be related? According to Murray, it is related to "alinement and configuration" (MURRAY, HJR 1951: 5 & 37-52) but no evidence is given of what this could mean in terms of human activity.

To find another perspective about Murray's position on the inspiration/origin/classification of board games, we can compare his ideas with those of Steward Culin. For Culin, games (and especially board games)

are to be understood not as inspired by daily human activities but as reflecting ideas and concepts of the cosmos, that is representing the underlying order of cosmos or at least a part of it. This assessment implies that board games have deep roots in magic or divinatory practices but do not directly represent or simulate a concrete human activity: “as they now exist, they are either instruments of rites or have descended from ceremonial observances of a religious character” (CULIN, S. 1975: 809).

This would mean that board games are deeply based on abstract cosmological ideas even though they could be said to resemble certain human activities. Games like Tic-tac-toe are not related to any specific human activity but connect directly with abstract ideas like geometrical alignment and are related to basic geometry, time and space. Instead of thinking that board games are miniature copies of actual human activities, we should think of them as having certain analogies to certain activities. Following this same idea, U. Schädler proposes a very interesting alternative explanation to the origins and possible reasons of ancient board games’ rules. According to Schädler they certainly do not *represent* human activities but really *resemble* human activities. An abstract idea about the cosmos (i.e. a mathematical idea of proportion or symmetry) is used as the basis for the board game and then rationalized or explained as a human activity in order to make it easy to remember. As Schädler points out: “*Assoziative Benennungen von Klassen oder Typen dienen in der Regel lediglich dazu, sich bestimmte klassenbildende Merkmale leichter einzuprägen*” (SCHÄDLER, U. 2005: 7). Following Parlett: [when talking about Chess] we no longer think of the pieces as elements of a medieval army when we actually play it. In play, a rook is not a chariot or a howdah, a ship or a castle, or even (like the Maltese Falcon) a black bird. Rather, it is a powerful piece that moves orthogonally, comes into its own on a relatively empty board, and can deliver mate even when (apart from the King) it is the last remaining piece (PARLETT, D. 1999: 10).

Once the parallelism between the rules of the game and a specific activity is set, the analogy starts working in both directions. This means that once the first relationship between Chess and war had been established, it was easy to change the names of the pieces for those of actual soldiers and war implements, or to call the two opponents *Devas* and *Asúras* (BURCKHARD, T. 1997: 15). Once we have assumed that Hnefatafl is a siege, we can call the defenders *Suedes* and the attackers *Moskovites*, or *Spanish garrisons* and *French besiegers*. Therefore, if we start classifying a game as “war game” we would soon see the resemblances to war in it. This does not imply that the game simulates or represents a battle or war, it just shares some basic traits such as opposition and strategy, with it. Once we have assumed that a game of strategy is in fact a “hunt game”, we can use tigers and goats, or hunters and fox, etc. Then, and only then, the “theme” can change the rules, and the original cosmological sense is forgotten and falls into disuse.

Following this line of thought, games did not come into being as abstract copies of concrete human activities but, rather, were based on patterns and abstract ideas. In order to explain these ideas a “theme” was attached to the different games. This theme was chosen for sharing some (but not all) of the traits of the game, and to help with its understanding and transmission. In doing so, the “theme” could be used as an introduction and explanation, evoking some sort of behaviors and pre-conceived ideas that would help us to automatically understand its rules (SCHÄDLER, U. 2005: 7-8).

According to what we have seen, all board games can be said to be “representative”: but not directly of a concrete human behavior but of the underlying order and pattern in nature. As T. Burckhardt points out, every plastic human representation is based on some essential “creative elements”,

consisting of fundamental geometrical patterns: circles, triangles, spirals, crosses and squares (BURCKHARDT, T. 1999: 6). Human beings, through these geometrical patterns, find in board games a way to analogically reproduce what has fascinated them from the very beginning: the rhythms, repetitions and laws of nature. They are directly related to thoughts about order in the cosmos and its relationship with time and space. The Greek word *κόσμος* itself (meaning both “universe”, “order” and “beauty” as in an ornament) reminds us of the importance and meaning that ancient civilizations gave to nature. Therefore, human beings have always had the urge to reproduce, physically or symbolically, the perfection seen in the Cosmos; through art, religion, music and many other cultural manifestations including, naturally enough, games. We know that every ancient cultural manifestation is embedded with sacredness and of course with symbolic and ritual meaning. Logically, ancient board games share the sacredness of the spiritual tradition because of the analogical vision of the world that is shared by all ancient cultures, also called religious, magical, poetical, mythical or symbolic.

Therefore, we can analogically say that ancient board games are completely permeated with the key traditional symbolic elements and were passed from generation to generation with virtually no changes. Games in antiquity, at the same time as they were used for leisure, passed traditional knowledge about life and the cosmos from generation to generation. They can be called “sacred” as they help us to remember something that happened or imply deep universal ideas about man, life and the world. In fact, in ancient Egypt there was no distinction between recreation and ritual: serious religious celebrations and worship could take the form of sports, games and play (PICCIONE, P. in FINKEL, I. 2007: 59). The intuition behind all this research is that in these board games (nearer to the origins of man, soaked with analogical sense) traditional cosmological symbolism, the backbone of every culture, is to be found more

alive and significant than in anywhere else. This would bring us back to the very essence of human perception of the world and of man himself, to our archetypes. Here we are using the word in the same sense that Jung used it: as common elements of culture (JUNG, C. 1997: 67-69). Having that in mind, we could simply say “universal”, but its connotations could thwart the sense of the central idea: some symbols appear with almost similar values in practically every culture in the world. By studying such a universal cultural manifestation as games through the archetypal (interculturally coherent) ideas gathered by traditional symbolism we are going to find that, at a deep level, humans around the world are connected by the same fears, the same beliefs and the same ignorance. We will find that we were (and still are) amazed about ourselves and about the world we live in.

As we have explained above, all creative and conforming elements used in cultural manifestations are based on a primal geometry. These are the key symbols of the traditional cosmological symbolism that are later passed from generation to generation (BURCKHARDT, T. 1999: 9). However, these symbols are not static, because they are re-explained and re-enacted as myths and rites. Therefore, symbols, myths and rites are the three kinds of analogical supports that every religion or spiritual tradition uses to bind man with the sacred, with knowledge about the cosmos and the best part of himself (OLIVES, J. 2006: 28). If we analogically apply this same three-fold classification to this research, we can find a very interesting analogy. Board games are at the same time symbol, myth and rite. The player, in each game, ritually reproduces and recreates the myth expounded in the rules. In playing, he experiences again the mythical reality through his pawns (FARGAS, A. 1997: 15-16).

The first problem we encountered was how to organize the huge volume of available data. Even though we had limited the study object to a handful of

board games, the symbolical analysis covered so many elements that a proper order was needed. We discarded analyzing the games separately, one by one, because we wanted to compare them all. A horizontal analysis, symbol by symbol, was more coherent with the correspondences we wanted to reveal. One of our preliminary observations was the formal resemblance between board games and symbolic knowledge diagrams known as *mandala*. This is the Sanskrit word for the traditional cosmograms or meditation patterns, shared by East and West traditions²³. For that reason, we divided this block following the research of G. Tucci. In it, he explains that *mandalas* must be seen not only as cosmograms or only as city plans but also as a fractal diagram comprising many levels, a cosmo-psychogram (TUCCI, G. 2001: VII). Mirroring this idea, we focused our efforts on these two complementary analogical approaches. The first one considered games from a cosmological/geometrical point of view, the second from an anthropological/psychological point of view.

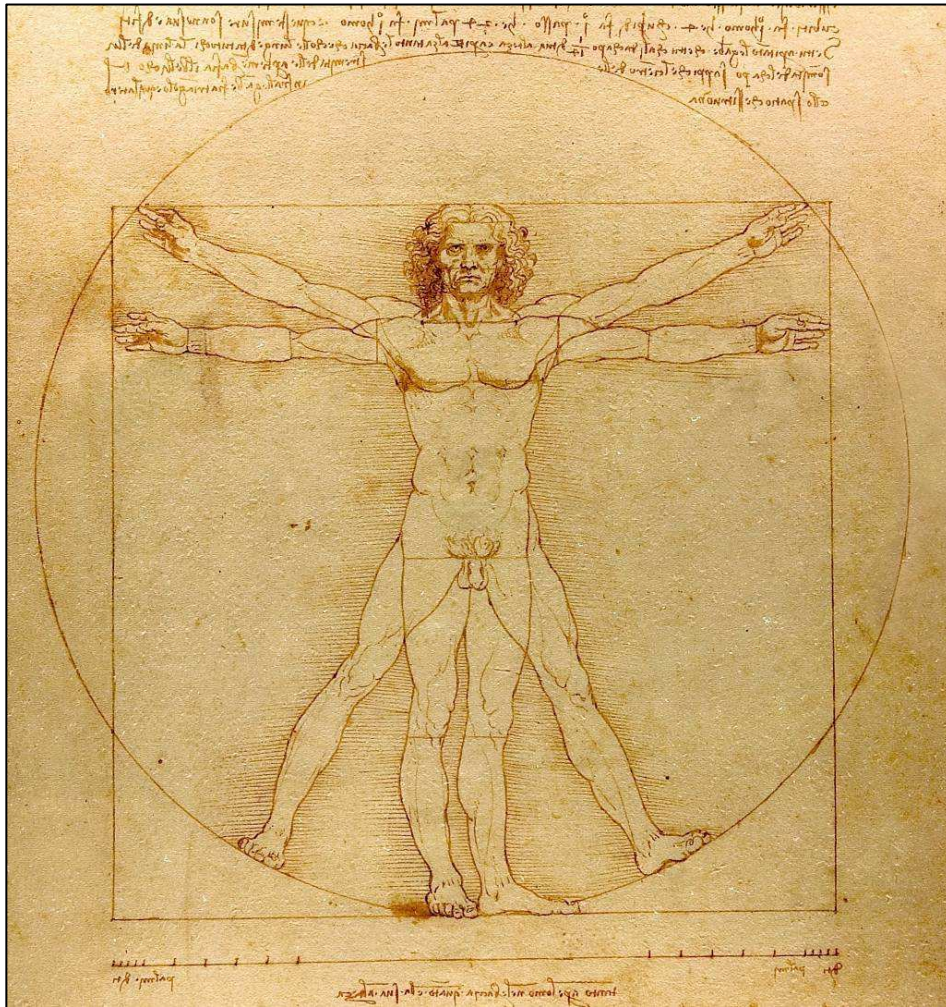
As cosmological symbolism in classical-traditional thought explains the microcosm (harmony present in man) as well as the macrocosm (harmony present in the world) (OLIVES, J. 2006: 57-59), it would be interesting to study the analogies found in and around board games (including their players) from both perspectives. The cosmological/geometrical approach has to be seen “outwards”, explaining human cosmovision with him as the center²⁴. The anthropological/philosophical one has to be understood “inwards”, explaining the ethical and spiritual symbolical analogies that games present.

²³ J.Olives and J.Rykwert relate them to the geometrical foundation patterns of ancient cities (OLIVES, J. 2006 & RYKWERT, J. 1985). Following these authors, the idea of *mandalas* will be extensively discussed below.

²⁴ With man as the center, we study the “outside”, the world: what he sees, the pieces he plays with, the board he moves the pieces on, and how they relate to the cosmos and nature.

However, we must remember that at the same time the geometrical approach can also be analogically related to our inner being, as the anthropological, spiritual view can be extrapolated to the whole cosmos. The same things that we say about a level of signification can be applied to the other. Both points of view are perfectly complementary and both are needed in order to fully understand their symbolic implications. Therefore, we want to note that even though the main chapter of the research project was divided into these two different analogical approaches, we constantly and seamlessly jumped from the cosmovision to the anthropovision and vice versa. Of course, this was completely coherent with the theoretical model we were using.

In the next chapter, called “Ancient board games as cosmograms”, we present the cosmological/geometrical facet of board games. We relate them to cosmograms, mnemonic diagrams and *mandalas*, as well as to the traditional geometrical ordination of space. As the volume of symbols available in traditional cosmological symbolism is huge, we based our research on the basic geometrical patterns, which are the generators of every other symbol. Following Champeaux and Sterckx (CHAMPEAUX, G. & STERCKX, S. 1972), we selected the four main basic figures: (central) point, cross, square (including grids) and circle (including spirals).



The Vitruvian man, by Leonardo da Vinci ca. 1487. WIKIPEDIA.

Following this, we delve into the anthropological/philosophical perspective in the chapter called “Ancient board games as anthropograms”. For that part, we selected the key anthropological elements present in traditional cosmological symbolism that were easier to relate to games and their environment. This list was created compiling those generic anthropological themes that kept appearing in both game and symbol literature. Then, the coincident themes were listed and put together under broader terms. In this way, the key themes of anthropology became the guides of this second analogical perspective: heroic challenge, ethics, struggle, life, death and

destiny²⁵. This led us to study the “inner” symbolic implications of board games, which we relate to both myth and rite. We start this chapter relating the whole board gaming experience to that of the hero. After that, we analyze the ethical involvements of rules and cheating. Next, we discuss the role of the opponent in the board game experience. Finally, we add some remarks about the playing pieces. In the next part, we explain how the role of man in the world could be seen as a game, introducing the Hindu concept of *līlā*. We study how games can be analogically related to quests, to spiritual and personal improvement. After that, we analyze the implications of randomness and its relationship with oracles. Lastly, we extend the research about randomness in board games to gamblers and gambling, concluding the chapter.

Within all these concepts, we find an analogy between man and both his “inner” self and his “outer” sociopolitical and cosmological environment, a constant in classical-traditional thought. The symbolic parallelism between the human body, the cities and the cosmos is a basic idea of traditional cosmological symbolism. It was recovered and represented by humanists, as Leonardo Da Vinci in his representation of the Vitruvian man, as Olives has pointed out (OLIVES, J. 2006: 61-63). The analogy between man, city and cosmos in classical-traditional thought is used as a philosophical tool to meditate about how each one works. As an example, we see that in Plato’s *Republic*, II 368D-368E the similarities between man and society are pointed out, and how the study of one can help to understand the other. Further on the text, in chapter III 434D-435B, he returns to the same idea: man, city and cosmos are models that can be studied analogically to shed light on one another.

²⁵ We know that this is not a closed list and only a sample of the anthropological analogies that we can find in games. In any way, we find it broad enough to establish a first analysis. As with the geometrical symbols selected by Champeau & Sterckx, those key themes can be said to be the basis of human anthropology.

2. ANCIENT BOARD GAMES AS COSMOGRAMS

Overall, the point of view about the formal *raison d'être* of board games proposed by Culin and followed by Schädler leads us to test one of the main hypotheses of this research project. It is interesting to note that, because of their roots in traditional cosmological symbolism, ancient board games share a structural resemblance with *mandalas* or “wisdom circles”, present in different ways in the ancient civilizations of East and West (GÓMEZ, I. 1999 & OLIVES, J. 2006: 64). This implies that board games, in the same way as *mandalas*, can formally be seen as cosmo-psychograms (TUCCI, G. 2001: VII) which aim to explain at the same time both man and the world that surrounds him²⁶. Human beings find in board games a way of representing what has fascinated them from the very beginning: the rhythms, repetitions and laws of nature. Seen this way, games connect directly with thoughts about order in the cosmos and its relationship with time and space. This is possible and meaningful because they share in their roots this common geometric/symbolic language, related to the analogical view of man and the cosmos.

Gomez de Liaño, in his outstanding work *El círculo de la sabiduría* (GOMEZ, I. 1998A & 1998B), explains that these knowledge diagrams were not only used in the east (where we find these which the Hindu call *mandala*), but are also the underlying pattern of many ancient Western philosophical and religious designs. When referring to these diagrams he uses mostly the terms *mandala* but also “wisdom circle”, as they are usually formed following regular geometry that includes all figures that can be traced starting with the circle (thus the name), with compass and ruler. They involve all regular radio-centric polygons: equilateral triangles, squares, pentagons, hexagons, etc. as well as all

²⁶ We would use the wider term *anthropograms*, in seeing that Tucci refers to a wider sense of psyche, including both its physical and transcendental meanings.

star-shaped figures or compositions with circles and spirals. The appellation “wisdom” refers to the symbolic philosophical content embedded in these diagrams that were used as mnemonic containers. Overall, “wisdom circles” are a way of representing traditional cosmological and philosophical ideas through the essential symbols of regular geometry (OLIVES, J. 2006: 58-59).

The Sanskrit word *mandala* signifies the composite shape of a circumference with its clearly marked centre, tridimensionally equivalent to the sphere. The Tibetan equivalent word *kyil khor*, means “centre” and “what surrounds it” (OLIVES, J. 2006: 57-58). In a simpler sense, in Sanskrit it signifies “circle”, “disc”, “ball” and poetically, sun and moon. (PUJOL, O. 2005: 700). In fact, also the Chinese characters for sun (日) and moon (月) are derived from an archaic figure depicting a dot within a circle (WILLIAMS, C.A.S 1976: 378). At the same time, in medieval alchemy the sun (and gold) was represented by this same composition (CHEVALIER, J. & GHEERBRANT, A. 1999: 952).

In a religious and symbolic sense, the *mandalas* are the geometrical basis behind the design of the ritual meditation diagrams representing divinity, man, the world around us and the universe (OLIVES, J. 2006: 64). *Mandalas* are used in Buddhism to impart the most profound religious truths. They are not meant to be what they represent because the Absolute manifests itself in everyone and everything, but only as aspects to meditate and visualize (BRAUEN, M. 1998: 9). A *mandala* is much more than just a consecrated area that must be kept pure for ritual and liturgical ends. It is, above all, a map of the cosmos, the whole universe in its process of emanation and re-absorption. It symbolically depicts the universe in its temporal revolution rotating around the central axis on which the sky rests and which sinks its roots into the mysterious depths. This same idea is represented in the Mesopotamian *ziggurats* and in many ideal and real city plans (TUCCI, G. 2001: 23 and OLIVES, J. 2006: 72-84). Therefore, the

mandala is not only a regular geometrical shape, but includes broader connotations such as symmetry, harmony, wholeness and plenitude.

The main aim of this chapter is to expose the analogical coincidences between ancient board games and traditional cosmograms, schematic representations of the Universe. In it, we will explain the key correspondences between the shapes and patterns found in the material elements of board games (that is, their boards and pieces) with the key traditional geometrical cosmological symbols.

These correspondences will be found not to be accidental but rather based on a common cosmovision and symbolic tradition. In seeing this, we can say that games are, in fact, symbols of the world (FINK, E. 1966: 236). Therefore, the board must be seen as representing not a concrete human activity or geographical place (as Murray proposed) but as a cosmogram. It is at this analogical level that the parallelism between *mandalas* and board games becomes clear. As soon as we discover it, the idea of the game board being an *imago mundi* surfaces naturally. Therefore, board games (like *mandalas*) are images of the world at the same time as they are representations and actualizations of divine power and a path to illumination (CHEVALIER, J. & GHEERBRANT, A. 1999: 679). So we can not only say that board games symbolize the world, but also establish deeper analogies at other signification levels (LHÔTE, JM. 1976: 55).

2.1 Symbolism of space: giving space a meaning.

As we have seen when defining board games, every game, ancient or modern, creates a miniature cosmos; its arena, rules, apparatus, and players comprise a unique spatiotemporal world that reflects and symbolizes aspects of known and accepted cosmological structures (ELIADE, M. 1987: 469). The space that the

board delimits is given a special meaning, different from anything else around it. However, this feature is not only applied to board games. If we look around us at our surroundings, we find that there are portions of reality, of space, qualitatively different from others. This is the theory behind the symbolism of space: the need of human beings to live in a meaningful or qualified space and not in a homogenous and meaningless world. Human beings attach a meaning to (or discover it in) the space around them in order to be able to understand and live in it.

The main tool we possess to arrange and comprehend (and somehow control) the world around us is language. The act of naming something is to separate that something from its background. Once named, being an object or a place, one gains some amount of knowledge or control over it. This is the anthropological reason, working together in parallel with the purely perceptual/biological one, for giving names to certain features of the landscape, for example. Therefore, we mark portions of land with fences and we limit territories with moats, walls and streets physically manifesting where this features start or end. These limits are not directly inherent to the observed landscape (where does a mountain start or end *per se*?) but passed from generation to generation as cultural knowledge of ways of understanding and interpreting our surroundings. What separates “here” from “there” is a very subtle and mostly subjective perception. The observer not only apprehends spaces in order to understand them, but also attaches a value to these more significant to him, for one reason or another. From then on, these spaces are specially remembered, because they can be called by their own special name and recalled and referred to collectively²⁷.

²⁷ As we talk about mnemonic techniques based on space we must at least cite Simonides of Ceos, a Greek poet who lived in 556 BC-468 BC. The legend says that Simonides was in a banquet when someone called him outside. When he went out the ceiling of the house where everybody else was fell

Symbolically speaking, we can find the same idea in many ancient traditions. The word as carrier of life, as a primal divine manifestation and vital principle is a common belief in traditional cosmogony (CHEVALIER, J. & GHEERBRANT, A. 1999: 794-795). It represents the manifestation of intelligence, but also defines the essence of beings. As a closer to home example, we can see the passage of Genesis in the Bible where God tells Adam to name the beasts in Paradise: “Out of the ground the Lord God formed every beast of the field and every bird of the sky, and brought them to the man to see what he would call them; and whatever the man called a living creature, that was its name” (GENESIS 2,19). Therefore, separating and giving name to a place (or to a person, collective, etc.) is essentially a sacred event. In the Egyptian symbolic language, giving a name to a place, object or person was never a random choice, but fruit of the study of the qualities of the named thing (CIRLOT, JE. 2004: 332). The name of a person is, in many cultures, the mirror of the human soul. From this idea derives the belief that in knowing the True Name of someone you can exercise some kind of power over him, as saying the Name of God brings His presence and energy to the invoker (CHEVALIER, J. & GHEERBRANT, A. 1999: 755).

When the reason to separate a space from the rest of the world is because of a transcendental experience or comes from a transcendental origin (kratophanies or hierophanies), we find that suddenly these spaces are qualitatively different,

down, killing everybody inside. After the accident the bodies were so mangled that nobody, not even close family, could recognize their relatives. Then Simonides told them that he remembered exactly where everybody was seated, which place in the room each guest had occupied just a few moments before the ceiling fell. In this way they were able to identify each and every one of the guests in the room. According to the legend, this unfortunate event gave Simonides the idea of developing a mnemonic method to artificially improve memory based on assigning the ideas one wants to remember to mental “spaces” (*loci*) which act as containers and mnemonic reminders. In “visiting” these spaces, the orator remembers what was contained in them and can recover the ideas. This idea was explained by Cicero in his *De oratore* (II, 354), because this technique is one of the five disciplines which any student of rhetoric must master (GÓMEZ, I. 1999: 115-117).

because the reason for separation is neither mundane nor human in nature. Every kratophany or hierophany changes the space where it happens: a profane space is seen from then on as a meaningful sacred space (ELIADE, M. 1997: 328). These spaces that have a transcendental value linked to them are called “sacred”, separating them from the “profane” spaces surrounding them. To do so, the spaces are clearly marked as being different: *“En épocas remotas las marcas de lo sagrado son un simple altar, un túmulo, un menhir, una ‘piedra de rayo’ simbólicamente ‘caída del cielo’”* (OLIVES, J. 2006: 28-30). There is a sacred space, strong, different, meaningful, and there are some other spaces that are not. In fact, these other spaces can be said to be “devoid of reality” (ELIADE, M. 1993: 29), because they do not have the structure or the consistency of the sacred



Archway formed by thousands of individual torii (sacred doorways) leading to the temple of the Fox God. The whole sacred path to the top of the mountain is separated from the rest of the space with these torii. Fujimi Inari, Japan (G.P., 2008).

ones: they are amorphous. There is an opposition between the meaningful and qualified space (sacred, always limited and enclosed) and the rest of the space, which is an extension of the world without a defined shape (ELIADE, M. 2005: 21). Sacredness of space is the point of rupture between everyday space and meaningful space that allows man to transcend the usual patterns of his life (OLIVES, J. 2006: 28). In this sacred space, special rules or behaviours apply, as we can see: “God said, ‘Come no nearer! Remove the sandals from your feet, for the place where you stand is holy ground’” (EX 3,5). Moreover, a sacred space implies the idea of repetition. It is a permanent reminder of the hierophany that happened in that space, singularizing and transforming it from mundane to sacred. So the sacralization/separation from the mundane does not happen only once, when created, but from that time on, forever (ELIADE, M. 1997: 329). In fact, symbolically speaking, all the images presented as an enclosed precinct, fenced garden, city, square, castle, etc. are based on the idea of *temenos*, sacred and limited space, saved and defended as it is a coherent spiritual unity (CIRLOT, JE. 2004: 386).

This idea comes together with the idea of repetition. In remembering a space as sacred, we repeat the original hierophany that made it special. It only has sense as long as this relationship is renewed through time (ELIADE, M. 1997: 329). The interesting parallelism here is that all these features are also common to board games, so we could coherently say that the playing space is, in this way, sacred. In naming the gaming board as such, the playing space is separated from the rest of reality and becomes a meaningful portion of reality. At the same time the act of playing a game could be the middle point between performing a physical activity (in a ludic environment) or going around the temple (in a sacred environment) and solving a riddle (ludic) or meditating a *mandala* (sacred). To actually move the pieces around or across the board is to re-enact in a half-symbolic and half-ritual way the same movements and

thoughts one would use while meditating or praying. In this way, the board game is at the same time an augmented and reduced model: reduced from the patterns in the world, and augmented (or explicit) of the ideas and inner meditation of the “players”.

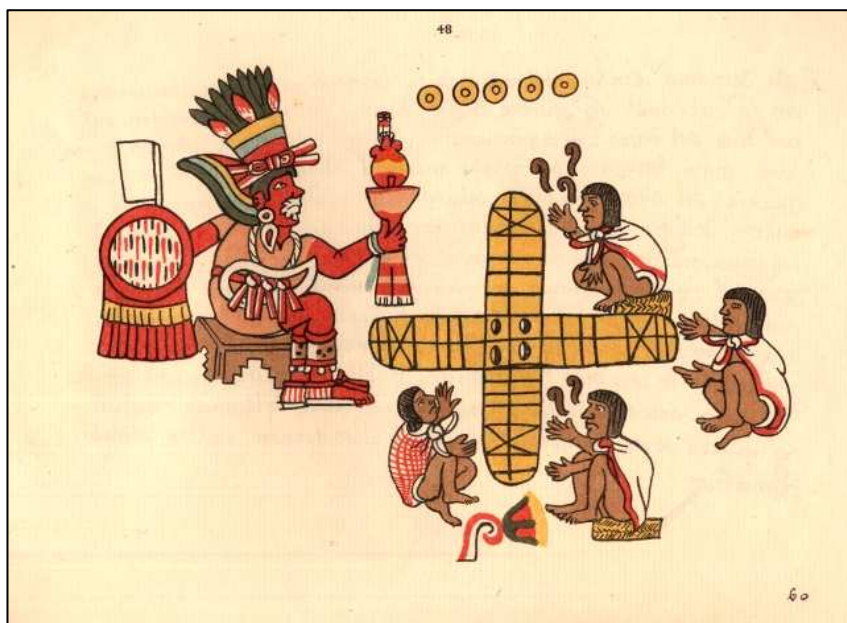
Applying the idea of “sacred space” to board games, we can see links on two possible levels. The first is the board itself being analogical to sacred space, meaningful, clearly separated from the rest of the world, with its own rules. The second level is that some special features on the board are more “sacred”²⁸ than the rest of the board (such as special squares, zones, pieces, etc.), in a fractal way.

The first analogy is easy to establish. As we have said above, the board is the limited space where the gaming action takes place. The board, as a whole, represents a concretion of general space where different rules apply, in the same way as sacred space. The sacred action (in a sacred space) represents a cosmic event, not only as a representation, but also as an identification (HUIZINGA, J. 1972: 28). Both in games and in sacred events the most important feature is the abstraction and separation from “normal life”. This abstract separation is usually concretized in a material or at least conceptual “enclosed space” (HUIZINGA, J. 1972: 33-34). If we attend to its shape and function, the separation in sacred events and in board games is analogically correspondent. Both game and ritual are defined by a limited space, which during a defined period becomes separated from the rest of the world. The participants freely accept that this space has rules of its own. Therefore, by its shape, the physical or conceptual separation is the same if done in a sacred or ludic sense. The board and its squares do not formally (and at a deeper level, conceptually)

²⁸ Here we could read “sacred” as important, prominent, special or different in a meaningful way, not only in its common religious sense.

differ from the temple or the city (HUIZINGA, J. 1972: 34). In all board games, playing off the board is forbidden. No game has sense outside the limits of the board, as a ritual cannot be conceived outside the sacred space. Even though dice, kauris and sticks can be thrown off the playing surface, they are never too far away and only affect what is circumscribed by the board. Following the same idea, when a board game is played not on a board but on the sand or the ground an explicit or implicit line separates the rest of the meaningless ground from the game and pieces.

In fact, this separation in space does affect not only the board and playing pieces but also the players themselves. Not only can the board be seen as a sacred or separated space, but the players around the board are also part of this separation from the real world. That means that the board is a catalyst, a link that binds together players and game as a whole. In playing, the dimension around the players is transformed in a way that the player does not dominate



Page from the Codex Magliabechi, depicting a group of players during a game of Patolli. Macuilxochilt, the patron deity of the game, presides the gaming area.

the world anymore but is incorporated into it (LHÔTE, JM. 1976: 42). The relationship between the players and the world changes while “in play” in a way that can also be analogically seen as “sacred”. If we think about it, we will see that interrupting someone while “in play” is considered as socially taboo. As Fink explains: “*Dans le jeu, la relation entre l’homme et le monde éclot d’une manière singulière. Le jeu humain a une signification mondaine, une transparence cosmique. C’est une des figures cosmiques les plus claires de notre existence finie. En jouant, l’homme ne demeure pas en lui-même, dans le secteur fermé de son intériorité; plutôt il sort extatiquement hors de lui-même dans une quête cosmique et donne une interprétation riche de sens du tout le monde*” (FINK, E. 1966: 222).

When we think about the other analogical level, special features in board games, we can find several concordances with sacred spaces. The clearest example could be the role of the altar in the sacred space. As altars, sanctuaries and temples are constructed according to the traditional canons of symbolism, this “construction” has its roots in the primal revelation that happened *in illo tempore*: the archetype of the sacred space copied and repeated through time and space (ELIADE, M. 1997: 332). As in a fractal, each part repeats the same pattern and is analogous to the whole. We find the temple with the sacred fire as the central element of ancient cities (OLIVES, J. 2006: 40-41). The temple is a miniature reproduction of the universe in its centrality, and the altar is a miniature reproduction of the same pattern within the temple. The same fractal pattern can be applied to man and to society in a seamless way: each man is the center of the group, as the “fire”, the heart of each man is his center. Therefore, we can see that sacred space is neither seen as a homogenous whole: there are spaces that are even more sacred within it. In the temple of Jerusalem there was a chamber behind the main altar where the most sacred relic was stored: the Ark of the Covenant (containing *manna*, Aaron’s staff that blossomed and the Tables of the Law). This space, called the *sancta sanctorum* (Holy of Holies) was only penetrated by the high priest once a

year, and involved a complex ritual and special wear and dress (Ex 40, 12-15 & Lv 16, 2-30).

When we analyze the parallelism with board games, we can see that even though the board is separated from the rest of the world, this space is not homogeneous. It presents fractures, peculiarities in the form of favorable squares or unfavorable squares, better or worse places to play, board and field limits, etc. There are places on the board that differ in shape or in value to other parts. As we have seen above, cosmological symbolism has to be applied in a micro-macro fractal schema²⁹. When we have a delimited space in the world thus making it the “center” of our activity, it will naturally internally develop the same pattern and have its own center.

In board games, this fractal pattern is found in many ways, but the most common is the “secure space”. In most of the board games where capture is one of the mechanics, there are spaces where it is forbidden to capture a piece. These spaces are not equal to the rest, and so are properly distinguished with a mark or a sign. Sometimes this is because the space “belongs” to one of the players, and so is safe for him. This is the case with a great number of Mancala games, where there is a section of the board belonging to each player. Players can only capture in their opponents’ holes, so playing in their own holes becomes a great strategy to win time. The same idea is repeated in the game of Ur and the Fifty-eight Holes, where each player has a row of squares where only he can safely play, and then enters the “dangerous” path, shared with his opponent. In Hnefatafl, the center square (called the *konakis*) is “sacred”: it can only be entered into by the king (MURRAY, HJR. 1951: 63).

²⁹ Fractals are rough or fragmented geometric shapes that have a property called “self-similarity”: they can be split into parts, each of which is (at least approximately) a reduced-size copy of the whole. We can find fractals in many natural shapes. The global order of everything is present in each of its parts. It seems that everything in the Cosmos obeys this rule of order, even at a molecular level.

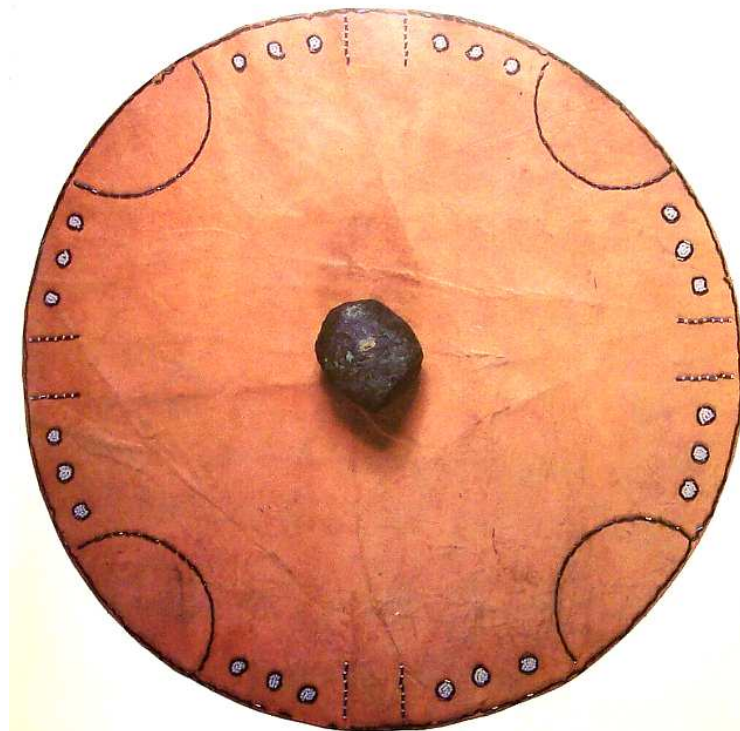
The other option is to have these secure spaces shared by both players, very common in path games where there is the option of capture. This is the case of the *ἱερὰ γραμμὴ* “sacred line” of the game Penta Grammai, the center line where no piece can be killed. Murray cites Pollux’s *Onomastikon* (IX 97) describing that game: “Each of the players has five men on five lines, so that Sophocles naturally says ‘five-lined boards and the throw of the dice’; and of the five lines on either side there was a middle one called ‘the sacred line’, and a player who moved a piece from it gave rise to a proverb ‘he moves the piece from the sacred line’” (MURRAY, HJR 1951: 25). This proverb was applied to people who were in desperate need, and so they made a last bold movement³⁰, just like moving the piece from safety to danger.

As another example, in Pachisi we find cross-marked squares spread throughout the board. Pieces in these cells are immune from capture (MURRAY, HRJ. 1951: 133). In ancient games such as Ur, Twenty Squares or Fifty-eight Holes, the safe squares are sometimes represented as crosses, stars or rosettes³¹. In the game of Ur, according to Finkel and Cazaux, the rosettes mark “safe spots”, where the pieces cannot be killed (FINKEL, I. 2007: 21-27 and CAZAUX, JL. 2003: 26). In the Twenty Squares game, Cazaux asserts that the rosettes are good squares that let you throw again (CAZAUX, JL. 2003: 28) but Bell suggests that these squares could be bad and force the player to pay into the pool (BELL, RC. 1979: 24). Finally, in the game of Fifty-eight Holes, Bell suggests that landing on such spaces could give the player a new turn (BELL, RC. 1979: 21).


³⁰ There is still a similar saying in English, referring to “the last throw of the dice” when someone is in a desperate situation.

³¹ We will discuss the symbolism of the rosette in the following chapters.

Another possibility is that landing on one of these special squares forces some kind of movement, either benefitting or hampering the player. In Moshkapatamu there are squares where the pieces are promoted and some where the pieces are demoted. Usually these squares are represented as red and black snakes, or as snakes and ladders (BALAMBAL, V. 2005: 82-83). These specially marked squares take you up or down the path ignoring all the squares in between. In Zohn-ahl and in Patolli the marked squares are not beneficial but dangerous. In the former, if a piece ever lands on or “falls in” the “creeks” and “rivers” it has to start again (MURRAY, HJR. 1951: 154-155). According to Cazaux, in Patolli the black squares work exactly in the same way, forcing the piece to start again (CAZAUX, JL. 2003: 74). According to Bell, even if it is not sure that the piece was killed when it fell on the marked square the player was presumably forced to miss a turn or pay a forfeit (BELL, RC. 1979: 7), as the square was unfavorable in any sense.



Leather Zohn-ahl board. Note the “creeks” and “rivers” marked as a cross-stitched pattern.

In some reconstructions of the rules of Senet, the squares marked with hieroglyphs are given special meanings. Even though there is no direct evidence of their real in-game value, they are given plausible meanings according to their symbolic meaning. As an example, the Ankh is said to represent a safe spot and the water square is said to return the pieces back to the start (CAZAUX, J-L. 2003: 16). On most of the known boards, the fifth square from the end is marked with the hieroglyph  *nefer* (good), and the last one had an image of Horus the Sun god. That surely means that they were good squares to land on (DUNN-VATURI, A-E. in SCHÄDLER 2007: 23). The other marked squares are given other special meanings, usually being safe squares from where you can leave the board with specific throws (FINKEL, I. 2005: 4).

To sum up, we find that both the board itself and some special features on it can be said to share the traits of sacred spaces. As Gabriel asserts: “Playing boards or fields are themselves altars of the sacred” (GABRIEL, K. 1996: 11). This first assumption would help us to better understand the analogies between traditional cosmological symbolism and ancient board games through the study of their geometry.

2.2 Geometrical and cardinal patterns

As we have seen, both sacred spaces and board games share common structural geometrical patterns based on traditional cosmological symbolism. This is the reason why both basic geometry and natural numbers need to be the key element of the first part of our analysis. If we think about it, numbers are the underlying essence of nature, its order and pattern. In fact, they contain a lesson of great value, a palpable instance of the symmetry of mathematics, being a reflection of the order that fills the universe, wherever we turn. While Pythagoras left no writings, the central focus of Pythagorean teachings remains

clear. Number is a universal archetype, the principle, source, and root of all things and, certainly, the law of number and proportion are the key to analyzing and understanding the universe. This is clearly explained in Aristotle's *Metaphysics*: “[*In the time of Pythagoras*] since all other things seemed in their whole nature to be modeled on numbers, and numbers seemed to be the first things in the whole of nature, they assumed the elements of numbers to be the elements of all things, and the whole heaven to be a musical scale and a number. And all the properties of numbers and scales which they could show to agree with the attributes and parts and the whole arrangement of the heavens, they fitted into their scheme” (MET. I, 5)

Of course, we as human beings do not stand outside this conception. Our place in the cosmos, in both space and time, is related largely to the shape of our physical bodies. From the moment that we have been bilateral, symmetrical beings, we have had a front and a back, and therefore a “left” and a “right” side. M. Jousse found that bilateralism, the symmetrical structure of the human body, shapes all forms of human expression, mental and physical. “And human beings were to divide up the world as their bilateral structure dictated,” he wrote. “They created a ‘right’ and a ‘left’, an ‘in front’ and a ‘behind’, an ‘above’ and a ‘below’ with themselves, the people responsible for the division, in the centre.” (JOUSSE, M. 2008: 203). Naturally, we tend to explain the world in these terms. Whether or not we recognize this perception consciously, it is innate in our constitution, and automatically affects our interpretation of the nature of reality. As man is always “man in the world”, the natural fourfold division of the world, centered primarily on our bodies, appears in the patterns we perceive. At the same time, this cardinality appears throughout all human activity and expression. That means that everything that we can call “artificial” (as in its original sense, work of art, man-made) is rooted in this perception of reality. Talking about cosmology implies that man

(consciousness) is always the center. Therefore, every part of the cosmos can then be related and explained through the human pattern: up to the sky, down to the earth, front, back, left, right, etc. All these concepts are ever-present in traditional cosmological symbolism and permeate every cultural manifestation worldwide. Man is essentially an orientated being because of both our skeletal and organic structure and also because of our psychical structure. We cannot help but to apply our own orientation to the cosmic landscape in which we want to live (CHAMPEAUX, G. & STERCKX, S. 1972: 26-27). This is the reason why these kinds of symbols are the clearest and easiest to find in our research.

Ancient board games have contained the same underlying patterns based on traditional cosmological symbolism throughout the ages with little variation. As explained above, in order to limit our research and center it on the most important symbolic traits, we have chosen the four key symbols, common to all symbolic traditions: the center, the circle, the square and the cross. These four symbols are the basis of traditional cosmology and therefore related to the classical vision of heaven and earth but also to more abstract concepts such as limit, eternity, perfection and harmony (CHAMPEAUX, G. & STERCKX, S. 1972: 23-32). At the same time, they are the geometrical essence of more complicated symbols that can ultimately be reduced to them. The choice of these symbols is not arbitrary, but follows the studies by Champeaux and Sterckx: *“Nous y trouvons réunis quelques-uns des symboles fondamentaux du psychisme humain [...] Ces symboles se ramènent essentiellement à quatre: le centre, le cercle, la croix, le carré.”* (CHAMPEAUX, G. & STERCKX, S. 1972: 22). For this reason, these four basic but essential geometrical symbols form the backbone of the first part of this chapter.

2.2.1 The point: center and axis

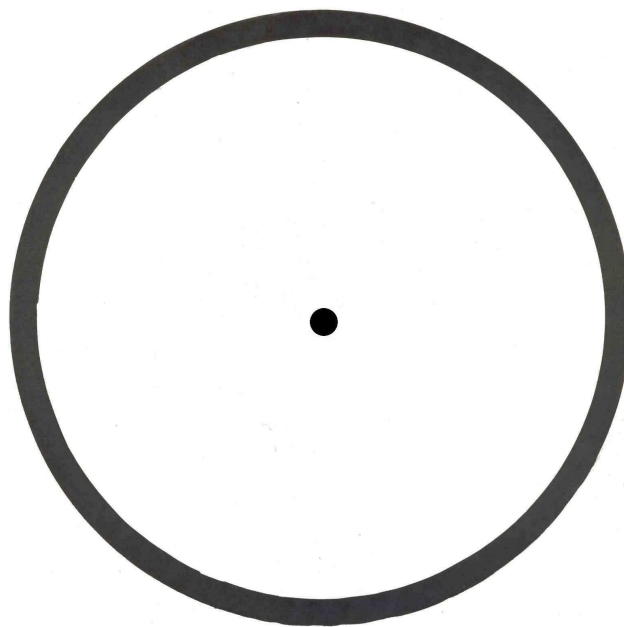
Champeaux and Sterckx stress the importance of the center (mostly represented as a point) as the key symbol in traditional cosmological symbolism (CHAMPEAUX, G. & STERCKX, S. 1972: 23). The most elemental and important symbol of traditional cosmological symbolism is the point, representing the center. Symbolically speaking it is the origin of everything and in fact, from a geometrical perspective, even space is created and defined by its center. Like the stone thrown into a lake from which ripples emanate, the center is basically seen as the origin of everything.

In antiquity, there is no city without a center, as there is no man without a navel (OLIVES, J. 2006: 65). The point is the minimum geometrical expression. It has “zero” dimensions because it represents a sole point in space. *“El centro es ante todo, el origen, el punto de partida de todas las cosas. Es el punto esencial, sin forma ni dimensiones, por lo tanto indivisible y, en consecuencia, la única imagen que puede darse de la unidad primordial. De él, por irradiación, emana todo lo creado, al igual que de la unidad derivan todos los números, sin que por ello su esencia quede modificada o afectada en modo alguno.”* (GUÉNON, R. 1995: 53). We can even change from geometrical to numerical symbolism in an automatic way, with a complete parallelism. The geometrical point is the unit (and the unity), as the line is duality and the triangle and plane are the triad. This point or unity produces all other numbers by irradiation (CHAMPEAUX, G. & DOM STERCKX 1972: 23-24). We cannot forget that arithmetical unity is not metaphysical unity but an image, an analogy.

In any case, considering traditional cosmological symbolism we can travel through a direct analogical channel from quantitative or spatial notion to a transcendental one, while keeping the symbolic coherence (GUÉNON, R. 1995: 53 and CHAMPEAUX, G. & STERCKX, S. 1972: 23-24). Of course, we must remember

that the geometrical and numerical speculation is the main Platonic speculative method (OLIVES, J. 2006: 67), as calendars and numbers have been part of traditional cosmology from the dawn of civilization. Plato, following the Pythagorean language of the geometers, talked in the *Timaeus* about the center to speculate about time and eternity. In Christian thought the central point represents the Kingdom of Heavens, said to be “like a mustard seed” (Mc 4, 30-32), and sometimes God is compared to a circle with its center everywhere and its circumference nowhere (OLIVES, J. 2006: 64). For all these reasons, the symbol of the center (as point and axis) is where the greatest analogies between board games and “wisdom circles” can be found.

Though it stands to reason, we should always bear in mind that the board game has developed with, on and around a board. This is a very important fact, as we will see, because it focuses the attention of the players away from themselves and onto something and somewhere (literally and symbolically) in



The simplest form of the mandala, a circle with a marked center. This same symbol was used to refer to gold, and also to the Sun. (OLIVES, J. 2006: 64)

between them. All actions concerning the game are played on or around the board with the board as their center. While playing, the board becomes the effective center of the world (*axis mundi*) for the players, and anything that happens during the game is centered on it. The meta-idea behind this is the reunion and communion of players through the board that reminds us of the function of the altar and the fire. The altar and fire was the meeting point of the ancient city, where the greatest decisions were taken and sacrifices made (OLIVES, J. 2006: 40). Following this analogy, the board shares the same symbolism in the microcosm that the board game represents. The act of sitting around the board is both an explicit acceptance of the shared activity of playing and an implicit agreement of the rules of the game that substitute reality for the duration of the game. Therefore, the board becomes the central “altar” in which players share their gaming needs and ludic objectives.

However, as the board game can be seen as a microcosm, at the same time it has to be seen as a complex macrocosm. Therefore, we have to study not just the board as a center but also look inwards, to the board itself. Following the micro-macro analogy proposed at the beginning of this research, the actual center of the board would also share the same properties that the symbol of the center suggests.

After a preliminary analysis, we find that the geometrical and/or symbolic center of the board stands out from the rest of spaces for various non-excluding reasons. The first one, the center can be seen as a gaming goal or as a strategic goal. The second reason is to stress the center as being “sacred” or “tabooed”. Finally, the third reason of giving importance to the center of a board is as its symmetry axis. We will now discuss these three possibilities.

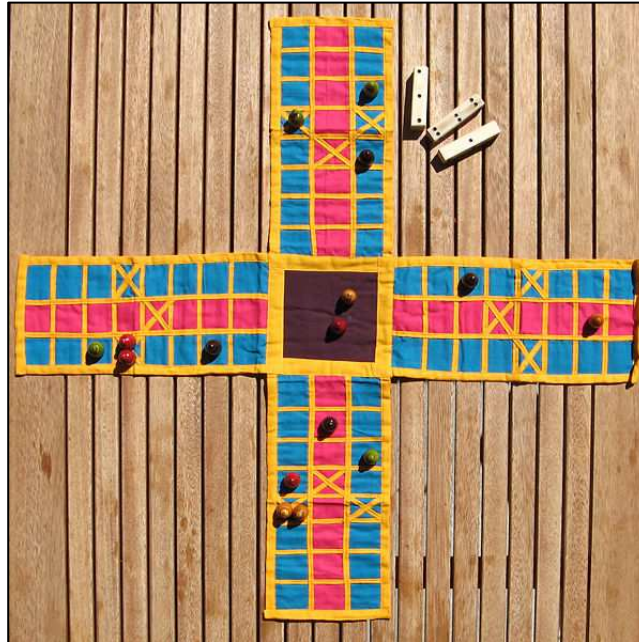
2.1.1.1 Center as a goal or as being strategically relevant

The first reason that enhances the figure of the center in games is its importance as an objective. This idea relates analogically with a series of philosophical ideas that we have already seen as belonging to the sphere of ancient thought, concretely with the idea of center. In fact, in a wide variety of path games, we can see that the goal is situated at the center of the board³². The paths the players have to go through go round or even in the opposite direction but finally converge in that central goal. As the goal configures the game, we can see that the centrality of the goal is not a casual design decision purely based on aesthetics but a fully-fledged coherence with traditional cosmology.

Maybe the clearest example of this way of using the center can be found in Pachisi. Players move their pieces around the board in order to reach the central square, where the four arms converge. In games like Twenty Squares, Fifty-eight Holes or Moshka-patamu we can see the same tendency towards a final square. In properly orientating the board, this objective square becomes the top of it, merging with the center. This is completely coherent with the value of the center in Traditional Symbolic Cosmology, because the center is visualized as the top of the sacred mountain. The image of the players “climbing” the board trying to reach the highest position is reinforced by the direction of the pictorial representations that usually decorate the boards. These are usually depicted as to be properly seen or read by all players, thus orientating the board in a symmetrical position between them³³. As an example, we can take the Fifty-eight Holes game, sometimes called “Palm

³² As we have seen, we could say that those path games in which the goal is not at the physical center of the board still follow a certain tendency in ordering the path towards a “top” square or region. This is fully coherent with the idea of center that we have been discussing before.

³³ This and other reasons make us put in doubt some of the assumptions about the game Senet and its possible meaning and function as a two-player game. This line of thought will not be discussed here, but developed in further research.



Pachisi cloth seen from a cenital perspective. The central square is at the same time the goal and the axis of this game.

Tree” game. According to the plausible reconstructions of the game, the path goes up to the crown. This idea is reinforced by the fact that in another version the path goes literally up, climbing a series of steps until reaching the goal in the highest part of the board (LHÔTE, JM. 1994: 119-120).

We have to note that when speaking about the center of board games (as with temples, territories or cities) we are assuming a bi-dimensional space. However, we would soon notice that the third dimension must be taken into account. As we have seen, sacred mountains are a clear example of *axis mundi* because they connect Heaven and Earth. This symbolic sense is improved by the fact that effectively the mountaintop is nearer from Heaven (the sky) than anywhere else is. Many sacred places are situated on top of mountains for this reinforced sense. Therefore, we can see that all centers are at the same time the “top of the cosmic mountain” (ELIADE, M. 1997: 335). If we refer to the “center” of the boards, we could also imagine it as the top. The inner part is also the higher, less accessible, more difficult to reach. Following the same

idea there are some games in which we would speak “center” when there is no visible geometrical center at all, but a clear ascension path to the goal. As a clear example, we can study Moshka-patamu, in where the coiled and difficult path to the goal is always up. Reaching the top of the board means dissolving oneself in Brahma achieving the reunification with the original centre of the Universe (BALAMBAL, V. 2005: 86).

The analogy here is very clear: climbing to the center (of oneself, of the temple, of the labyrinth) is a synonym of reaching perfection in every ancient tradition (FARGAS, A. 1997: 81). Assimilating the center of the board with the center of the universe, everything we said about the second can be said about the first. This point has a deep symbolic meaning because it represents the connection between Heaven and Earth, where the veil between both worlds is thinner, and the only point in space where both worlds are able to communicate. In the Northern hemisphere, it is physically assimilated to the North Star, because the entire Universe seems to turn around it (OLIVES, J. 2006: 241). Every religious system ultimately focuses on spiritual evolution. In order to explain this extremely difficult concept it is usually symbolized as a stairway or ladder to Heaven (PENNICK, N 1992: 44-49). This stairway represents the communication between Heaven and Earth that allows man the access to higher levels of existence simultaneously to the descent of the Divinity to our existence. At the same time, it is the connection between our conscious and unconscious parts, our higher one and our earthly one (CIRLOT, JE. 1991: 44). In the Catholic religion, this idea is sometimes represented by symbol of the *Scala Dei* (ladder of God) where the angels climb and come down communicating Earth and Heaven. The same image is used in Shinto: Amaterasu keeps in contact with the Earth with the “ladder of the sky”. The same idea appears in

the descent of Buddha from Mount Meru thanks to a stairway of *nāgas*³⁴ (CHEVALIER, J. & GHEERBRANT, A. 1999: 455-456). This image can be identified as the center of the cosmos, the pillar or tree that keeps the celestial cupola in its place, round where the whole Cosmos turns (BENOIST, L. 1985: 51-58). This idea of movement, or turning around is the key and goal of the major part of transcendental symbols: the medieval *rota*, wheels of transformation, the zodiacal wheel or the *Opus* of the alchemists (CIRLOT, JE. 1991: 27). This idea of centrality usually appears under many other shapes: hidden treasures, ladders, lost objects, difficult tasks, quests... and why not, victory in games. The basic analogy here is that when a piece reaches the center of the board, its goal, which is the top of the cosmic mountain, the world, is symbolically recreated in repeating the primal foundational act (FARGAS, A. 1997: 20).



Schematic design of a labyrinth, similar to the one in Chartres cathedral.

³⁴ The *nāga* is a mythical snake with seven heads of the Hindu tradition.

“Reaching the goal after a hard way” could be both the summary of a mythical quest or of a session of board gaming. This same idea is to be found in one of the most widespread symbols in ancient tradition, very related to the idea of centre: labyrinths³⁵. Labyrinths are spaces where one has to find the exit but at the same time, they are spaces where one has to find the centre. As we have seen, symbolically speaking both possibilities coincide in full sense: the exit is always through the centre. Therefore, reaching the goal (the centre) in path games such as Mehen, Pachisi, Ashta-kashte, Twenty Squares, Senet or Fifty-eight Holes also symbolizes the transition from one form of existence to another: the centre is where death and rebirth occur. It is also the “door” which opens to another point of view, to another reality, or to another level of consciousness. There the veil between the different planes of existence is thinner, and therefore, permeable. In fact, establishing more analogies we see that in Pachisi pieces actually start from the centre and have to return there. As a common feature in path games, captured pieces always return to the beginning, having to cross the whole path again. Therefore, the “birth” and “death” of the gaming pieces (as its salvation and ultimate departure from the board) is always related to the centre. According to Balambal, the central row of each arm (where pieces enter and exit the game) is called the “birth place” of the four game pieces of each player (BALAMBAL, V. 2005: 62).

The other possibility to understand the importance of the center as an objective in games that are not based on paths is to understand its importance as a strategical position. Playing in the center of the board becomes in some cases the best play available. In Tic-tac-toe, it is the only way to have the

³⁵ Here we have to stop for a moment to differentiate labyrinths from mazes. Labyrinths are coiled structures that have a center reached by a single, twisting, path. Mazes, on the other hand, are structurally different, with paths that branch, dead ends and no clear center. (KERN, H. 2000: 23).

possibility to win, so the best move³⁶. In Shogi as in Chess, the center position is clearly important to dominate in the middle game, because it does not limit the movement of the pieces. The number of controlled squares increases exponentially when in the center, and pieces with long movements achieve their full potential if situated there. In Chaturanga there is a special move involving the four ships: “When three ships come together, and the fourth ship completes the square, the fourth ship takes all the other three ships. This fourth ship is called *Vribannauka* (the Great Ship)” (BHAVISHYA PURANA, 35-36 as in FALKENER, E. 1936: 128). This extremely rare winning move happens in the four squares at the center of the board. These are the only squares of the board where this peculiar arrangement of pieces can occur, as per piece movement. Therefore, the four central squares become an important strategic place to take into account when planning a strategy with the boat piece.

Apart from the geometrical center of the board, in these games where there are many possible playing positions, the space tends to fold around sub-centers. As an example, we can see that in Weiqi there are specially marked zones near the corners. These are called *hosbi*, or “stars of the angles” in Japanese, and act as strange attractors, centering the game around them as sub-centers. On the board they are marked with points, and are used as visual and strategic beacons amidst the chaos that a game represents (COPPIN, F. & MARCHAND, M. 2006: 138-140). These are the best places to play, harmoniously coherent with the whole of the board both aesthetically and tactically.

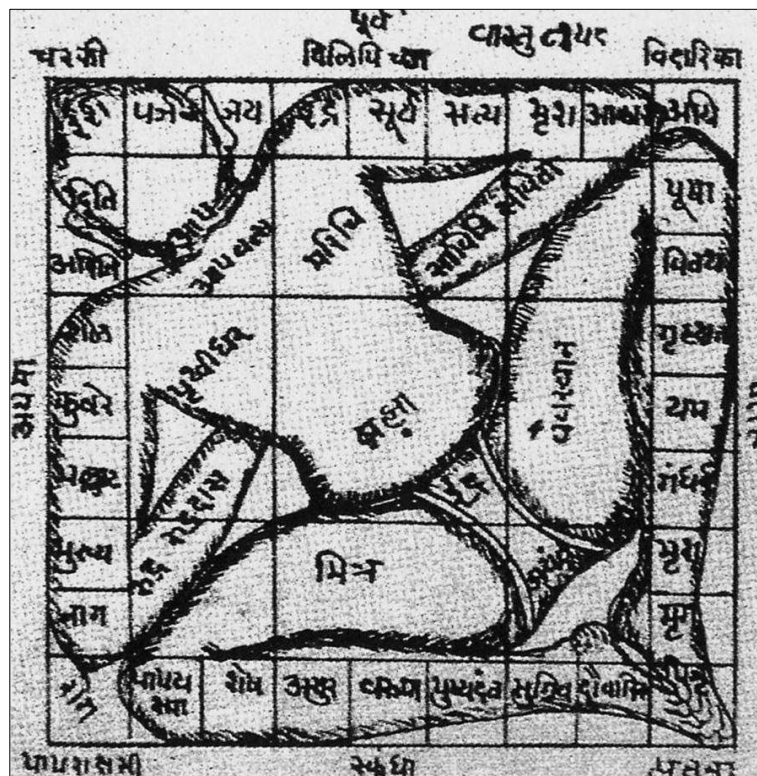
2.1.1.2 Center is “sacred” or empty

There are some games where another aspect of the symbolism of the center becomes explicit. In these games, the center cannot be seen as a goal nor as a

³⁶ In modern games as Hex, the central position is so good that if the starting player decides to play there, the second player can decide to swap sides and take that as his first movement. The center is the fast path to victory, therefore playing there has to be limited in some way.

clearly strategic zone. What we see in common is that the center is considered “sacred”, either in name or through the rules. The idea of a sacred center where special rules apply is also related to both the ideas of center and special spaces in board games.

This symbolically relevant central point is known in geomantic terminology by its Greek name, *omphalos*. This means “navel”, because in the human being the navel is the vestige of the umbilical cord that connected the unborn baby to the placenta of the mother’s womb. In the same way, through the *omphalos*, the material world is linked upwards to the creative upper world and downwards to its complementary opposite, the destructive underworld (PENNICK, N. 1989: 101). In other words, these central “navels” are the fixed points at which those attuned to such things may attain other states of consciousness and spiritual evolution. In many languages, the popular expression “Earth’s navel” is still in use, not only to refer to the real center of the World but to the precise point where all Creation started. For the Jews, this “navel” is Jerusalem, and in a broader sense the Holy Land occupies the top of the cosmic mountain. The Islamic traditions use the same mystic cosmology with Mecca and the *Kaaba* (ELIADE, M. 1993: 32). The marking of the center is the foundation of the settlement, and the fulcrum of all subsequent creative development. There is no city without a center, as there is no man without heart or navel. The determination of the most powerful and appropriate location for the fixation of the spiritual forces was the task of the *locator*, who, after long and meticulous scrutiny of the site and consultation of oracles, would decide the best location for the temple, which would contain the fire at the center of the city (OLIVES, J. 2006: 65). In the game Fanorona from Madagascar, the center is called *foibeny* (navel). Likewise, in the Malay version of Alquerque, the center is called *pusat* (also navel) (PENNICK, N. 1992: 146).



Purushamandala grid, marking Purusha's navel in its center (OLIVES, J.

The most powerful centers in any area have become seats of monarchs and governments, but most of the time major shrines or oracles. The imperial power in China was seen as the center of the universe, granting harmony to the earth. The character for “emperor” means “he who links man with earth and heaven” (COPPIN, F. & MARCHAND, M. 2006: 63). The emperor on his throne becomes a clear image of the *axis mundi*, the center of the universe, as long as he grants this harmony. Once ritually selected and fixed, only the king, the hero or the initiated can reach this center because it has become sacred, the true center of the universe (ELIADE, M. 1972: 343). Each time a *mandala* is drawn, its center is considered the center of the cosmos itself. During the foundation of the Hindu temple, the entire surface is seen as a man lying on his stomach, inscribed on a square. This *Vastupurusha* (“Spirit of the place”) marks with his

center (his navel, his *dan jian*³⁷) the place consecrated to Brahma. This symbolic pattern was also used in the territorial distribution of settlements (OLIVES, J. 2006: 29). This same symbolism is shared by many cultures, like American Indians who arrange their tents in the shape of “the perfect man”, in the center of which the tent of the medicine man with the fire resides (BURCKHARDT, T. 1999: 54-55). Royal palaces as well as ordinary dwellings were transformed into a centre through which an *axis mundi* ran, and so placed its inhabitants in contact with the three spheres of existence (TUCCI, G. 2001: 25).



The Hnefatafl board, in one of its main configurations. Notice the higher “king” piece in the central konakis. WIKIPEDIA

³⁷ The *dan jian* or *tan tien* is, according to Chinese philosophy, the energy center of the body from which the *chi*, vital energy, emanates and flows through the body. Physically it coincides with the body’s centre of gravity and with the general area in the abdomen where a woman gets pregnant and the new being is conceived.

Along similar lines, in those games with pieces that have a royal attribution (Hneftafl, Shogi or Xianqi), the “throne” of the emperor or king occupies a central position. The main piece of the game, around which everything turns, is situated in the heart of its own “army”. The “sacredness” of the throne, represented by the central square, is clearly seen in games such as Hnefatafl, where the center square (called the *konakis*) is “sacred”, and can only be entered by the king (MURRAY, HJR. 1951: 63). This central square is not only marked with a special sign, but is exactly in the center of the board.

If we look at a board ready to play, we would be able to see that the high piece representing the king in his throne, clearly evokes the idea of the *axis mundi*. The *axis mundi* can be also seen in the central rock of American Indian games as Zohn-Ahl, where the players throw their sticks to “bless” them³⁸, thereby connecting with higher levels of existence. In some variants, if the participants are playing for money, they place their bet under that stone (CULIN, S. 1975: 88). In the games with symmetrical forces at play, such as Shogi, the centrality derives from the central squares of the board³⁹ to the center of each player’s side. When the board has an odd number of squares, we find the main piece in the very middle of each side; if the number is even, it is in one of the two possible middle squares⁴⁰. In this way, we see that the piece of the emperor in Shogi occupies the central position of both sides. At each side, the pieces flank it in descending importance: first the golden generals, then the silver generals, etc. creating a virtual arrow of forces aimed towards the enemy.⁴¹

³⁸ And to prevent cheating, of course.

³⁹ We have to remember that in fact the actual center is not completely devoid of its sense, because it is still strategically important, as we have seen before.

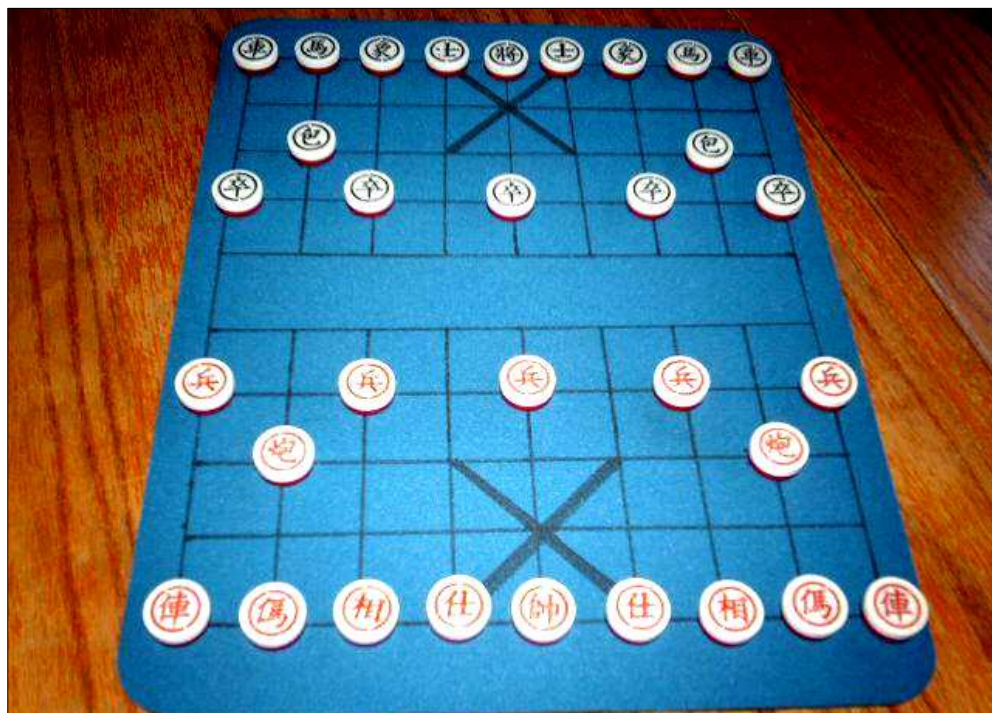
⁴⁰ In fact, the only documented game with this peculiarity is Chess, with its 8x8 grid. That gives cause to very interesting questions: is Chess flawed? Or is it better because of this asymmetrical anomaly? Could we see in this anomaly traces of its origins as a four-handed game? However, these questions do not fall within the scope of this research and will be left for further investigation.

⁴¹ We have to note that, in fact, Shogi pieces are pentagonal, shaped like an arrow, and pointed towards the enemy. It is their orientation and not their color that defines the owner of each piece.

In Xianqi, the importance of the central squares is emphasized in the same way as in Hnefatafl. They are “the palace” of the general⁴², where no one can enter. The general starts the game at the midpoint of the back edge (within the nine points called “the palace”). The general may move one point either vertically or horizontally, but not diagonally, and cannot leave the nine points of the palace under any circumstances. However, if a player makes a move that leaves the two generals facing one another on the same column with no other pieces placed in between, then the general is in check.

In Penta Grammai (as we have seen), the central space is literally given the attribute “sacred”. It evokes the temples and sanctuaries that in antiquity tend to occupy the acropolis at the centre of the city (KURKE, L. 1999: 258). The same idea can be found in Seega, where the central square starts empty. No piece moved there can be captured, even though it is trapped between two pieces. The same idea is repeated in Totolospī(I), but in the opposite sense. The diagonal between players (called the “battle line”) starts empty, but it is there and only there where the opponent’s pieces can be captured. The battle line is the only place where one can fight (LHÔTE, JM. 1996: 512). This special square (being a safe or a dangerous place) is marked on most of boards with a special symbol, a cross or a flower (BELL, RC. 1979: 82-83).

⁴² Legend says that originally, the pieces were known as “Emperors”, but when an emperor of China heard about the game, he executed two players for “killing” the emperor piece. Future players called them “Generals” instead.



Shogi (above) and Xianqi (below) boards, ready to play. Notice the central position of the “emperor” or “general” piece. CHESSVARIANTS.

The analogy continues in games that have a blank space in the centre. This is an extension of the sacredness of the space: the zone is so sacred that no one can play there. Although part of the board, it does not play a role in the development of the game. This is the case of the river in Xiangqi, which divides the terrain in two halves, delimiting each player's land. No piece can enter the river at any time. We can find more empty centres in games such as Merels and Pachisi, where pieces stay at the end of the game. In fact, in Merels the centre is not in the game at all: it is the "pound" into which captured pieces are impounded (PENNICK, N. 1992: 183). Another analogous case is that of Alquerque, where the centre of the board is the only place where there are no pieces at the start of the game (LHÔTE, JM. 1996: 24).

2.1.1.3 Axis of symmetry

Symmetry is ever-present in ancient board games. If we look at the starting positions or starting dispositions of the pieces, we can see the symmetry axis as a design basic. Only Senet apparently is an exception to this principle of symmetry and even then, we cannot say if this is due merely to our misunderstanding of the actual game rules.

Therefore, even where the cases of importance of the center explained above cannot be applied, we find that the center is the axis of symmetry. Some games show this symmetry through the starting disposition of the gaming board. In these cases, the board is divided in two (or more) sections, one owned by each player, representing his territory. This can be done beforehand, as in Mancala games or Shogi, or afterwards as in Weiqi. This is inherent to board games, because any opposition implies a certain degree of symmetry, as

the players have the same opportunities and interests, but with different goals (LHÔTE, JM. 1976: 45-46).

In games where there are differentiated pieces, the most important one becomes an axis of symmetry. The king and emperor in Shogi, Xian-qi and Chess (considering that it has an even number of squares) are always situated in the symmetrical center of the board, with the remaining pieces distributed equally to each side. Even in Chaturanga, a four-handed board game, the pieces of the four rajas start in the central squares of each side, resulting in a four-folded symmetry.

In path games, as we have seen, the goal establishes the symmetry to all players. It does not matter if the path is shared or not, the starting points are situated at the same distance from the goal. In Mehen, where the path coils towards the center, we can find the symmetry if we uncoil the path as a line, situating the axis vertically, in the head of the snake.

It is important to note that the board games usually termed “asymmetrical” also have this symmetry. That is because when we talk about “asymmetrical games” (Lions and Goats, or Tafl) we are only taking the value of the pieces or the players’ goals into account. We must see that even though the pieces of the players are not equal, or even equivalent, and the goals are not exactly the same, or even balanced, the symmetry of the game permeates the game at a deeper level.

2.2.2 The cross: cardinality and quartered division of space

Following the symbolic development starting from the unity of the centre, the next basic symbol to study has to be the cross. The cross represents in the first

place the double movement of emanation and reabsorption of the Cosmos. If we apply it to the *mandala*, we see it symbolizes the passing from the uncreated centre to the creation that the outer line represents. Therefore, it symbolizes the idea of the creation of the whole universe parting from one single point. This is why the number four represents everything created in all its span, possibilities and quantity thus summarizing all other numbers (OLIVES, J. 2006: 58). The cross represents and summarizes the created universe as a whole. At the same time, it also represents communication and participation with the Unmanifested, being one of the most universal symbols, spread all throughout the world and time. As Guénon explains: "*La croix, avons-nous dit, est un symbole qui, sous des formes diverses, se rencontre à peu près partout et cela dès les époques le plus reculées*" (GUÉNON, R. 1931: 10). It will not be strange then to find games that have the cross as their basic shape.

The cross is a development of the idea of the cosmic axis and therefore, the connection between Heaven and Earth. Geometrically speaking, the cross is the basic symbol that connects point, circle and square. Emanating from the center it reaches the limits set by the circle and square. In doing so, it divides both the circle and square in four parts, that being the first territorial division known. Therefore, it is the basis of all orientation symbols, at all levels of human existence. Even though it could seem that the cross is only related to the number four, it is also related to the number five because to the four cardinal directions we always have to add a fifth, where the arms cross. This center is coherent with the aspects dealt with in the last chapter but it enriches its meaning, because it becomes the point where all oppositions coincide and are solved. In this point, the synthesis of the contraries (better known as complementary) is achieved. In the center, we find that the exterior and accidental points of view of the world are senseless because they are only different in appearance (GUÉNON, R. 1931: 62). As we have seen above, the

location and management of such powerful centers was among the most important tasks of the *augures* and *locators* of old Europe and Asia (PENNICK, N. 1989: 101). In fact, finding the proper place for the founding of a city (and the founding rite itself) was the main rite in all ancient civilizations, including nomadic ones. It symbolically contained all of the elements of the fundamental traditional cosmological symbolism, and was mainly based on the fourth folded shape that we have called *mandala* (OLIVES, J. 2006: 56-58). It is also the image of an archetypal human being with completely extended limbs (COOPER, JC. 2000: 60). The “squared man” is a geometrical idea expressed by the Greek cross, and the basis of the city foundation (OLIVES, J. 2006: 243) and therefore the first universal pattern used for city plans, ordering and distributing each of its parts. The *cardo* and the *decumanus* crossing at the center of the city and configuring its spaces around them was the basis of Roman city-planning but also of the *Nandyavarta*, one of the oldest Indian urban models. In both models and in many others from around the world the whole city is a quartered distribution round the central fire or altar (OLIVES, J. 2006: 54, 65, 97).

According to the ancient principles of earth harmony, not only cities, but also all sacred centers are structured as a local Cosmic Axis. The space around them is organized as a fourfold area, with three doors on each side. The resulting figure is the so-called Cross of Jerusalem, which represents the twelvefold division, coincident with the zodiac and the more complex *mandalas*, as the *Kalachakra* one (OLIVES, J. 2006: 244-245). In the *Kalachakra mandala* (and many others), lines connecting the opposite corners of the square create four triangles of equal size, whose points meet in the center. Each of the triangles or quarters corresponds to one of the cardinal directions, and displays its characteristic color. Each of the four outer sides of the square is interrupted in the middle by a T-shape. These are the “entrance gates”, representing three doors per side, since the center of the *mandala* is none other than a building or

the ground plan of a temple or palace (BRAUEN, M. 1998: 13). The *crux potenziata* structure (a cross with feet) is to be found in some ancient games that share a similar cosmogrammatical structure but with different functions: Pachisi, Hnefatafl and Liubo. In Pachisi, we can see the cross with the three doors in the three rows of squares depicted on each arm. The sum of the outermost squares is therefore twelve. In Hnefatafl, the pieces of both players give shape to the same cruciform structure. In many boards, the starting squares of the pieces are identified with special marks, resulting in a perfect *crux potenziata*. Even though in larger versions of the game the outermost enemy pieces are not twelve in number, the proportional geometrical shape is still the same. In Liubo, the whole board (as we will see below) has the cross clearly marked and it seems fully part of the game, even though the rules of the game are incomplete. Finally, the Merels board also shares this cruciform shape. Even though the quartered division produced by the four beams of the cross is not properly used in the game, the same pattern is repeated. The central square space remains empty, as in Liubo, while the four arms of the cross extend outwards from each of its faces. The combination of the three squares with the cross reinforces the resemblance to a sacred center, a cosmic axis, surrounded by a fractal organizational structure, as we will see below⁴³.

Many civilizations used the four cardinal directions as mnemonic classification systems. In the classification of things according to the Four Quarters, we find that a numerical ratio was assumed to exist between the various categories, and this was used for divination (CULIN, S. 1976: 680-685). In several cultures around the world tribes are assigned to the directions, like the tribes of Israel in the Bible (OLIVES, J. 2006: 28-30), similarly the winds, seasons, certain colors (CULIN,

⁴³ Maybe it is for this reason that symbols like Merels boards are used as talismans around the world. They are a perfect *imago mundi*, and remember of order and stability at the same time that they connect with the sacred center. However, to fully proof this relationship, further research should be conducted.

S. 1976: 679), animals, elements (*Wu-hsing*, the five elements of nature) (OLIVES, J. 2006: 185), human body fluids and many other things (BERGER, F. 2004: 18). The world can be described and summarized through these four cardinal directions, and so the orthogonal cross can symbolize the world in its extension, plurality and variety. Of course the center of this fourfold cross is always a very meaningful or special place, “good enough” to be considered the center of the world (as we have seen above).

Pachisi participates analogically from this kind of symbolism. The world (the playing board) is divided into four “quarters” represented by four different colors. Traditionally, the four arms of the Pachisi are understood to represent the four *varnas* or classes (*Brahman*, *Vaishya*, *Kshatriya* and *Sudra*). (FINKEL, I. in MACKENZIE, C. & FINKEL, I. 2004: 133). Each different “tribe” (colored gaming pieces) belongs to a player or, if played in pairs, the facing ones (as N-S and E-W) play together. The objective of the game is to move the pieces to the most



A mirror of the Tang period, showing the Four Supernatural Creatures (Phoenix, Tiger, Dragon and Turtle/Snake). They represent the four quadrants of the Heavens (WILLIAMS, C.A.S 1976: 369)

important and significant place in the world that the board symbolically represents: the center.

Therefore, the big cross formed by the Pachisi board is designed to mark and emphasize both the quartered division of players and their final central objective. Seen this way, the board becomes a clear *imago mundi*, orientated following the four cardinal directions. The pieces move around the four-armed board, representing the world quarters in a way that follows the reverse (anticlockwise) movement of the sun through the houses of the zodiac (ELIADE, M. 1987: 470). Many elements present in the game can be directly related to traditional cosmology, and it could be seen as a meditation diagram, very similar to the *mandalas* we have seen. The pieces move round the circular path, round the fourhanded board. As the board is the world, this fourhanded division is analogous to the division made by the four cardinal directions.

By signaling sunrise and sunset, and then north and south, space is given meaning, and in order to explain and remember this division, so color. Each of the quarters of the world belongs to a color, a “clan”, and this is where they start their journey from, and return at the end. Culin, in describing Pachisi, names the four colors of its pieces and board: red, green, yellow and black, which are symbolic of the four cardinal directions (CULIN, S. 1991: 76). Note that the color blue is avoided in Indian games because it is considered both sacred and unlucky (BALAMBAL, V. 2005: 57).

We see that cruciform games, besides being an *imago mundi*, have to be considered as “orientated” *imagines mundi*. They all have a cosmic significance because they represent the world, in an orientated way (CULIN, S. 1976: 872). There are accounts in many games of traditionally orientating the board before playing to make it coincide with the actual cardinal directions. In fact, both in

Nyout and in Zohn-Ahl the four terminal squares are called North, South, East and West (CULIN, S. 1975: 122, 125 and CULIN, S. 1991: 66-71). Even though other cruciform games such as Pachisi or Patolli do not have any orientating marks, those found engraved in permanent structures such as temples often appear orientated. As examples, we have the famous Pachisi in Fatehpur Sikri (BALAMBAL, V. 2005: 56-57) or the Patolli boards found by Maria José Gallegos in Campeche (GALLEGOS, MJ. 1994: 22).



Orientated Pachisi board on the floor of the Fatehpur Sikri temple, in Agra.

Nevertheless, this is not only a trait of pure cruciform games. We have accounts of the Liubo board being related to geomantic and divination, therefore having the same cardinal qualities and the potential of being orientated before play, as we will see (CAZAUX, J-L. 2003: 61-64). Moreover, in Weiqi there are some special positions called Hoshi where the handicap pieces are played. In each of the sections a dot is specially marked, being equidistant from both sides. These four points are called *kan*, *sun*, *kw'an* and *k'in*, and are the same names given to the diagrams in the magic symbol of the universe to

Northeast, Southeast, Southwest and Northwest (CULIN, S. 1976: 870-872 and CULIN, S. 1991: 100). These names suggest that the four sides of the board also correspond directly to the four cardinal directions. Finally, we also have accounts of Merels boards engraved on flat surfaces and orientated to the four cardinal points (BERGER, F. 2003: 59).

In analyzing the whole spectrum of ancient board games, one begins to notice that the cross is present not only in forming the outer shape of the board but also marking special squares. These squares (or points) that were identified above as “secondary centers”, share the crosscut pattern all around the world. In Pachisi, we find that the crosscut squares represent the safe points where pieces can stay without fear of being captured. In other games based on paths such as *Thaayam*, *Ashta-Kashte* or *Siga* they have the same use. We can find crosscut squares or points in many other games, always marking and centering the attention of the players on these particular squares. In *Hnefatafl*, we find the same kind of squares in the *konakis* and the four corner squares and in *Weiqi*, the center and the *boshi* are sometimes marked with a cross.

We can find squares marked by a simple diagonal cross or point but sometimes we find a more elaborate symbol: a rosette. This symbol, is a development of the centre-periphery idea that we discussed above. As the symbol of the cross always points to its center and at the same time expands it towards its arms, the rosette, as a developed cross, is the essential symbol of essence and creation. It is symbolically related to the sun and the stars, flowers, and to the wheel (CHEVALIER, J. & GHEERBRANT, A. 1999: 891). In its “shining” aspect, it is analogous to light and therefore to everything good, prosperity, life in its expansive aspect. For this reason, the rosette appears in many cultures as a protective charm. It also summarizes the birth-life-death-rebirth cycle as the flower, in its blooming and always-returning sense. The

flower contains the germen of the seed, which contains the plant that gives birth to the flower. The hope of rebirth is coherent with the idea of prosperity and life, so it assimilates into the symbol, reinforcing its sheltering properties. This idea passes to board games in a seamless way: the rosette, the cross, is a meaningful place, related to good omens. We have a good example when talking about the game of Ur where “the rosette squares are lucky if a player lands on them, and unlucky if he is forced to pass over them” (FINKEL, I. 2007: 21). For this reason, in reconstructing ancient games like Fifty-eight holes, Twenty Squares or the game of Ur itself, it is very coherent to think of the rosettes as meaningful squares, different from the rest of the board. Apart from that, following the symbolic discourse we must understand that everything points to the rosettes having positive and beneficial meanings and not being simple decorations.

2.2.3 The square: limits of game

In the last chapters, we have stressed the importance of the center in games, relating it to traditional cosmogony. As with the development of this centre, we have explained the symbol of the cross, with all its expansive and cardinal significances. However, as we talk about the centre and the cross, a question arises: “the center of what?” In traditional cosmological symbolism, a generating center always implies limits. There cannot be an ordered cosmos without a center and a limit surrounding it (OLIVES, J. 2006: 65). This limit appears in traditional cosmological symbolism as a line surrounding a point (in a squared or circular shape). That is why the next basic geometrical symbol to study following that of the cross has to be the square. It is senseless to talk about one without the other (CHAMPEAUX, G. & STERCKX, S. 1972: 25). There is no conceivable expansion or space without a limit. Following the same

analogical relationship, we can analyze this key traditional symbolic trait in board games by stressing the interesting analogical and cosmological implications tied to the fact of playing a game with a limited board.

Anthropologists and historians coincide in dating the appearance of board games to the Neolithic age. In becoming farmer and shepherd, the hunter-gatherer radically changed his way of seeing space and time. In sowing and taking care of the fields, the first artificial straight line limits and flat surfaces appear. In planning the harvests, the breeding of the cattle, the right moment to shear the animals, time restructures itself as well (CAZAUX, J-L. 2003: 6). Therefore, we can see that the symbolic idea of limit relates to games and to board games from the start. Philosophically speaking the concept of limit is contained in even the most basic *mandalas* (like the one depicting just a circle with a central point). As Tucci explains: “[...] a *mandala* delineates a consecrated superficies and protects it from invasion by disintegrating forces symbolized in demonical cycles” (TUCCI, G. 2001: 23). The first instance in which the center, the unity, develops thus representing multiplicity, the idea of limit appears. While the point is infinite, the limit shows that creation is finite, and therefore limited. We can find the idea of plurality being equal to imperfection or limitation as a constant of traditional cosmological symbolism (OLIVES, J. 2006: 64). The development and multiplication of the central point (unity) in all directions in space (represented by the four arms of the cross) has to stop, as it is limited and imperfect. We delimit the created space with a line, which symbolically gives shape to the four sides of a square. That is why the square relates with everything limited, earthly, the antithesis of transcendence (CHEVALIER, J. & GHEERBRANT, A. 1999: 370-371). In a wider sense, it can be related to anything limited or separated. As Revilla explains: “*Hasta aquí: no más. Éste es mi terreno: no traspongas estos límites. El cuadrado simbolizará la realidad creada, sólida, firme, cerrada*” (REVILLA, F. 2007: 140).

As we have seen when defining games, it is a common feature in all of them to limit their span. In the specific case of our object of study, board games, the playing surface is always concrete and limited. The board (the most representative trait of board games) represents the limit, the frontier. As a frontier is the separation between two countries, the board is the separation between the “real” world and the game. While playing, everything in the game exists and it is meaningful, and everything outside plays no part in the game and therefore is meaningless to it. Having the power or the right to affect the pieces inside the board extends the limit to the players. Therefore, staying in means to participate in the game, but being out is being only a simple spectator without any actual power. As Duflo explains: *"Cette monde propre, et fini, suppose un espace et un temps qui lui soient aussi spécifiques et finis. La clôture ludique, sous tous les aspects, est ce qui permet l'existence de ce monde ludique"* (DUFLO, C. 1997: 208). Therefore, every game has its own place and only in there it happens, like a ritual in a church (REURICH, L. in DE VOOGT 1995:185-186). Every gaming board represents the limitation and organization of a territory, a miniature analogy of the primal Creational act. This organization puts an end to the chaos or emptiness before the Cosmos (FARGAS, A. 1997: 20), and therefore orders it.

This is fully coherent with the symbolism of the square explained above. Therefore, the fact that most of the boards are square or rectangular is not accidental but related to the idea of separating a concrete surface from its surroundings by the setting of limits. If these limits are square or rectangular, they contribute even more to the idea of separation. To the sense of the line separating “here” from “there”, we add the idea of the square, limiting the interior space. The square is the primordial sign of limitation: it is a container and a regulator of structure and pattern, as explained above. The aesthetically

pleasant combines here in a fully coherent way with the symbolically significant. All astrological traditions see in the square the representation of the earth, matter and limitation (CHEVALIER, J. & GHEERBRANT, A. 1999: 370). In fact, in early pictograms of Sumer the square already means “enclosure”, and it also suggests the quadratic “fences” drawn in rock art in Mongolia, central Asia and India (BERGER, F. 2004: 18).

The square is one of the geometrical representations of the number four. As a development of the cross, it relates to the division into four parts and to everything fourhanded or quartered. This stability is reflected in traditional cosmology as the number four (and other even numbers) are related to the *status quo* while three (and other odd numbers) as number are related to movement and change (CIRLOT, JE. 1997: 159). In the Holy Bible, (EF 3,18) the Earth is said to have four dimensions (width, length, depth, height), which was the basis for the *forma quadrata mundi* and the *tetragonus mundus* ideas that permeated the Christian way of thinking. In Hinduism, the Earth is referred as *Caturbursti*, which means, “four-cornered”, *Catursamudra* “surrounded by four seas”, *Caturantā* “limited on four sides”, etc. (PUJOL, O. 2005: 321-322).

The square is sometimes opposed to the circle, as the earth opposes the sky. This is because the circle represents the natural reflection and geometrical abstraction of celestial movement (BURCKHARDT, T. 1999: 53). It relates to the point and because of that, to the center. The circle and square together combine heaven and earth, thus representing the universe. In Christianity, we can find the same idea in the mandorlas surrounding the *Maiestas Domini*: the Son of God (Jesus) on the throne is surrounded by a circle (or almond-shaped figure) and then by a square. This represents God’s rule over Heaven and Earth. In Islam, we can also find this kind of representation but following the stricter commandment to not make an image of God, as a fourfold symbolic

writing. There is a great example in the palace of Aksarai of Timor and in the Gok Gumbas Mosque in Uzbekistan (BERGER, F. 2004: 18). There, the words of the *sura* 1,2 of the Coran: *Al-Mullku Lillabi* “Praise be to God, the Lord of the Worlds” appear as a fourfold square pattern forming a central octagon (being a development of the double cross, and in repeating this infinitely, of the circle) that incorporates the eight directions. We can find this common feature in many ancient temples, like the one in Dashly in Afghanistan from the second millennium B.C., which has a round temple with the fire in its centre, surrounded by circular living quarters within a quadratic outer wall (BERGER, F. 2004: 18). Therefore, it is not strange to find squares with inscribed circles in them either as pictorial symbols or as board games. In any way, we can see that the figure of the circle is also a limitation. Geometrically speaking, a circle cannot exist without a center. So then, both the square and the circle (in their expanded form) represent the idea of limit, opposed to that of infinity represented by the center. This means that in many cases we could swap both symbols seamlessly. Along the same lines, we find games (*Zohn-ahl* or *Nyout*) where the path around the board is circular, but it can be “bent” into a square or cross-shaped board without losing its original meaning. As another example, we could “unbend” the path of a *Tablas* game or the holes of a *Mancala* board to form a circle without losing the original idea behind the game.⁴⁴

As we have seen when speaking of the cross, the concepts “four”, “cross” and “square” relate to the image of the world. This would mean we see the squares as *imago mundi*. In fact, this idea has appeared in many civilizations from around the world since the beginning of humanity, and is part of traditional

⁴⁴ In fact, both cases are documented. The first, as a four-player *Tablas* game in the Alfonso X codex 89V, and the second, as a sample board of *Pallankhuzi*, an Indian *Mancala* Game (BALAMBAL, 2005: 118).

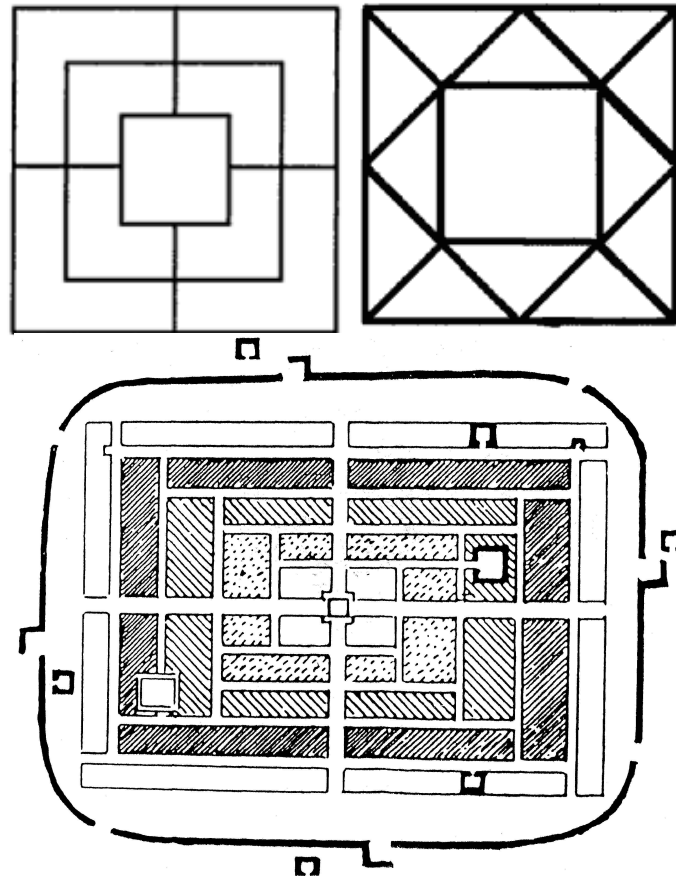
cosmological symbolism. In China, the shape of the world is a square, with each direction dominated by a cardinal mountain. The cross and the square coincide fully in this analogy. As Chevalier points out: *“Para los chinos, la forma cuadrada de la tierra es una idea muy antigua inscrita en la lengua. El espacio está definido por las cuatro direcciones Yang, pero este término significa a la vez ‘cuadrado’. Por esta razón el Dios del suelo se representa por un túmulo cuadrado, la capital es cuadrada, el dominio real también, etc. El espacio esta así construido por cuadrados encajados unos en otros (con relación al centro del mundo) o yuxtapuestos (alrededor de centros secundarios)”* (CHEVALIER, J. & GHEERBRANT, A. 1999: 371).

The Chinese emperor situates himself in the center of the room, in the center of the palace, in the center of the city, in the center of the country in the center of the world (WHEATLEY, P. 1971: 411-419). From there he can reign over the whole land, because he receives good influences from the four directions, and through these channels throws away the ones which are bad. The squared space delimited by the four directions divides into square provinces. Each province is divided into square fields, where the crops of the central field of every nine (containing the common well) are fully sent to the Emperor. Note here that the pictogram for well (*jing* 井) is the idealization of a nine square grid (LEWIS, ME. 2006: 248), and certainly resembles a Tic-Tac-Toe board. This system derives from the idea that division is the basis of social order and good government because it assured equity by creating standard units. The Imperial city, in the center of the diagram, is square, with four doors orientated towards each cardinal point. The Emperor sees his vassals inside, forming squares, because that keeps the world in order. In fact, the Chinese tradition explains that our feet look like squares (or rectangles) because they belong to the earth, and our head looks like a circle (or a ball) because it belongs to the sky (GRANET, M. 1938: 297).

This view of the cosmos was directly related to the origins of the game of Go, and was widely admired and quoted by writers such as *Ban Gu* (LO, A. & WANG, T. in FINKEL, I. 2004: 194). This author wrote *The essence of Go* where there is a passage which says: “the board must be square and represents the laws of the earth. The lines must be straight, like the divine virtues. There are black and white stones, divided like yin and yang. Their arrangement on a board is like a model of the Heavens.” (as in FAIRBAIRN, J. in FINKEL, I. 2007: 134). Even though these ideas clearly belong to *Ban Gu*'s time and later, and have nothing to do with the invention of Go, they show how it was clearly related to cosmology (FAIRBAIRN, J. in FINKEL, I. 2007: 134)

We have more examples of squared lands directly related to boards and games from around the world. In Buddhism, for example, the term *ashtapada* evokes the place where the Padmaprabha Buddha appeared (BOCK-RAMING, A. @ BGS 1999: 44). This place is described as a pleasant land, beautiful, prosperous and pure, delimited and ordered with golden cords, like an Ashtapada board. These golden cords that subdivide the territory represent the streets of an ideal city, orientated with the axes that define the world. They cross in right angles delimiting the space in a harmonious way, separating it from the exterior. In Indian literature, this description applies in multiple occasions to both ideal cities and to the board game. This analogy became so recurrent that the word *ashtapada* became also a synonym of “gold” or “golden” (PUJOL, O. 2005: 112). The Ashtapada board is therefore, an image of the ideal city and of the world. Even though it is not clear that Ashtapada was ever a game by itself (CAZAUX, J-L. 2003: 42-43) it follows the same cross-cut pattern as games played with similar boards (but with even number of squares) such as Thaayam, Ashta-Kaste or Siga (CAZAUX, J-L. 2003: 44-46). In these games, players progress to the center with a clear intention: to reach the altar, the fire, the center of this ideal city. At the same time, it becomes a microcosmical analogy of man reaching

his most spiritual part, his “fire”, traditionally seen as his center (OLIVES, J. 2006: 44). The whole game is analogous to a long voyage where one literally goes round the (symbolic) world or city in order to find oneself.



Triple precinct, in its Merels-like and diagonal configurations. Below, an Indian city plan following the Nandyavarta (OLIVES, J. 2006)

This traditional vision of the earth as a series of repeated squares often appears as a grid. However, on other occasions this grid is simplified into a series of interlocked squares. We find the same symbol coherently integrated in the Chinese cosmology and in the triple precinct, both a Celtic and Christian symbol (BERGER, F. 2004: 11). They represent the three levels of existence and the “three worlds” of the Hindu tradition. The four lines that connect the

different squares are the channels through which one can progressively penetrate into the mystery (GUÉNON, R. 1995: 67). It can also be found in the *Nandyavarta*, a Hindu urban model where the Vedic altar is situated in the center and around it are found successive “rings” for the different *varnas* or society (OLIVES, J. 2006: 97). We can find horizontal and vertical instances of this arrangement of interlocked squares and lines all around the world, from Spain, France, Ireland or Austria to Afghanistan and India. In many countries, besides being a board game they are also used as a talisman against bad influences (as in Sri-Lanka or in Christian magic) and are always considered as a good omen (BELL, RC. 1979: 93).

The Merels board is an orientated cosmogram, with different sectors or “barriers” which have to be crossed to reach the center. The same idea could be translated in a three-dimensional way to the image of a series of steps or stages where the initiate has to stop in order to reach the top of the mountain. Even though the game is not a path game nor has anything to do with reaching the center, its shape is an *imago mundi*, simplified as the Cosmic Mountain. In fact, in ancient Mesopotamia, the Merels board was the representation of the *ziggurat*, which was at the same time an idealized Cosmic Mountain and therefore an image of the world (PENNICK, N. 1992: 173). In this *ziggurat*, the lower level was related to bronze, the middle to silver and the higher to gold, as height was interpreted as proximity to Heaven, that is to say, to perfection⁴⁵. Note here that the idea of altitude related to that of quality is ever-present in antiquity. The concentric and subsequently higher levels of the Cosmic Mountain imply the different steps of effort and purification, from an earthly existence to a higher one (GUÉNON, R. 1995: 67).

⁴⁵ In Greek mythology, this same division appears to refer to the ages of man. The best (the first) was the Golden Age and then came the Silver Age. According to the myth, nowadays we are in the Iron Age (the worst) where man has forgotten everything important about the gods and himself. Rarity of the metal relates to physical quality, and physical quality to moral quality.

Moreover, there are curious attributes present in some boards that are not necessary for the game but that are completely coherent for its role as *imago mundi*. As mentioned above, some boards are aligned to the cardinal directions, and some have a point or even a dome in the centre (symbolically related to the *axis mundi*, as we saw when talking about the center) (BERGER, F. 2003: 59). The Tibetans use the same pattern of interlocked squares as the basis to create some *mandalas*, which are ideal representations of the world (BERGER, F. 2004: 18 and BRAUEN, M. 1998: 85-87). Therefore, sets of concentric squares with intersecting lines or bands were used for other purposes than Merels. One of the most interesting to study is the Chinese diviner's board. This board consists of two distinct layers: the lower one (square) and the upper one (round). The square layer has diagonal paths between the corners and horizontal and vertical paths between the central points of the sides, thus resulting in an eight-fold division. This division resembles the eight possible trigrams of the *I Ching* and the cardinal points, thus having a cosmological meaning. The circular disc, representing heaven, was turned around the square board (once properly orientated), until it pointed in the direction of the sun. The handle of the "Dipper" or "Plough" at the center of the disc pointed to the result of the divination. The Chinese compass has a similar layout, with a lodestone "spoon" in the middle circle and an outlying square with the division of the world into eight (BERGER, F. 2004: 17).

The same squared and orientated diagram has been related to the ancient Chinese game of Liubo. This mysterious board game appeared in China around 450 B.C. and we can find representations of Liubo players from the Han period (206 B.C. – 220 A.D.). It appears for the first time in a Chinese translation of the *Brahmajâlasûtra* around 406 B.C. so it could be of Indian origin. The dating between the 4th and 3rd centuries B.C. is due to

archaeological evidence on the boards (LHÔTE, JM. 1994: 173 and LHÔTE, JM. 1997: 309). Our limited understanding of the rules of the game is derived from cryptic (and sometimes contradictory) references in ancient texts and later commentaries. Although the existence of manuals on the game imply that there was an element of skill in the game, it is clear that Liubo was primarily a game of chance because six sticks (*bo*) were thrown in order to move the pieces around. Despite this, it was serious enough to be cited as an analogy for political tactics so it must have had some kind of decision making mechanics in it (MACKENZIE, C. in MACKENZIE, C. & FINKEL, I. 2004: 120). Liubo was an activity between game and divination, because in all representations the attention of the players always seems to focus on the sticks, not on the board.

The case of Liubo is very interesting to study because it shares all the important traits of both TLV⁴⁶ mirrors and Chinese diviner boards. For that reason, it is related to cosmology, geomancy and divination. In fact, the TLV mirrors and divination diagrams shared exactly the same marks, it being, in some cases, impossible to distinguish one from the other (MACKENZIE, C. in MACKENZIE, C. & FINKEL, I. 2004: 113-114). The connection in terms of design between the cosmograms and the Liubo board is evident and clear beyond argument. There is even a divination diagram which not only has the same shape as a game of Liubo but also has a list of divinations that use the same Chinese characters that also occur in a well-known Han-period rhyme about the moves of Liubo (MACKENZIE, C. in MACKENZIE, C. & FINKEL, I. 2004: 119). Besides, there are some TLV mirrors with inscriptions stating specifically that their design was taken from the Liubo board, but in certain cases implying that playing Liubo warded off evil. (MACKENZIE, C. in MACKENZIE, C. & FINKEL, I. 2004: 122-123).

⁴⁶ The name “TLV mirror” given by Western scholars derives from the very distinctive pattern formed from marks resembling the letters T, L, and V from the Latin alphabet.

In order to understand the importance of the divination boards, the TLV mirrors and the Liubo game, a brief summary of the Han frame of mind could be very useful (LOEWE, M. 1979: 1-16). Under the Han dynasty (202 BC – 9 AD) China achieved imperial unity, dynastic stability and administrative intensity. To the Chinese, the problem of evil was a matter of cosmic order and harmony rather than theology, ethics or psychology long before the Han period. This idea of cosmic order implies the traditional way of seeing the world that characterizes Antiquity, and includes regular and irregular movements of the heavenly bodies, the growth and decay of animals and plants, the rise and fall of man through fate, etc. The search for a pattern in all these constant changes gave birth to the *I-ching* (the book of changes), which contains the trigram theory. The eight trigrams symbolize the two basic states of heaven and earth and the six elements (thunder, wind, water, fire, mountain and lake). These elements, when combined in groups of two (sixty-four possibilities) represent all the complex situations in the ever-changing world. In knowing which is the combination that best describes the current situation one knows how to react to it. This is the conceptual frame for divination boards TLV mirrors and Liubo (BERGER, F. 2003: 109-110). The corner angles mark the edges of the cosmos, seen as cut from the square, thus depicting a cross. The T shapes have to be understood as the three-fold gates that allow access to the axial center. In this way, the quartered square combines with the number twelve, thus representing the zodiac (LEWIS, M.E. 2006: 283). The TLV mirrors combine three things: the two discs that fit in the correct relationship with the cosmos, the circular heaven that surrounds the squared earth and the central bump in the squared temple that contains the axis of the universe (BERGER, F. 2003: 110). Man has to be seen as the intermediary between heaven and earth, active and passive, in the same way that the cardinal cross is the

intermediary between the eternal cycle of the heavens and the square of the earth (BURCKHARDT, T. 1997: 19-21).

2.2.4 The grid

Recapitulating, we can see that as every meaningful space is separated from the rest with a physical or theoretical limit, the enclosed space suffers the same treatment and is marked with divisions (as with concentric squares). The idea of distributing and dividing the space in squares (as in a grid) is prefigured in the quartered division created in dividing the basic *mandala* into four quarters with a cross. As we have seen, the cross and the center are one of the most important symbols in traditional symbolism, with the peculiarity of recursion. As soon as we symbolically divide a certain space with a cross parting from a center we obtain four new smaller spaces that share the same properties as the generating space, in a fractal way. Therefore, we can see that these new squares have their own center, and so they can be subdivided with further crosses *ad infinitum*. If we try to visualize this division covering space, we would obtain a grid, expanding infinitely in each direction. If we limit this grid with a square, taking a portion of it, we have the squared board, used in many ancient games. So then, square and cross combine to give shape to the land in a fractal pattern that man can reproduce at any scale.

If the whole board symbolizes the Cosmos, the inscribed grid symbolizes the order within this field. This structure is a manifestation of the universal order (GONZÁLEZ, F. 1986: 54). Each square is a microcosmical representation of what the board is: a separation from the outside world. As the board limits play to this surface, squares limit the movement or placement of the pieces over or into them. As we have seen above, exemplified as the “sacred” spaces, each

square is independent and hermetic. No piece can be “between” the squares⁴⁷, because the line is a limit, a frontier. As Lhôte poetically explains: “[*la ligne sacrée*] ... *s’agit cette fois d’une frontière, d’une ligne dont le franchissement ne signifie rien moins qu’un passage de la vie à la mort*” (LHOTE, JM. 1976 : 51). Mathematically, all board games are played on points, as may be seen when chess is played on a portable board, or when the board is carved in the ground as an arrangement of holes (MURRAY, HRJ. 1951: 5). Houses or squares in board games are by definition discrete positions, thus are reducible to mathematical points.

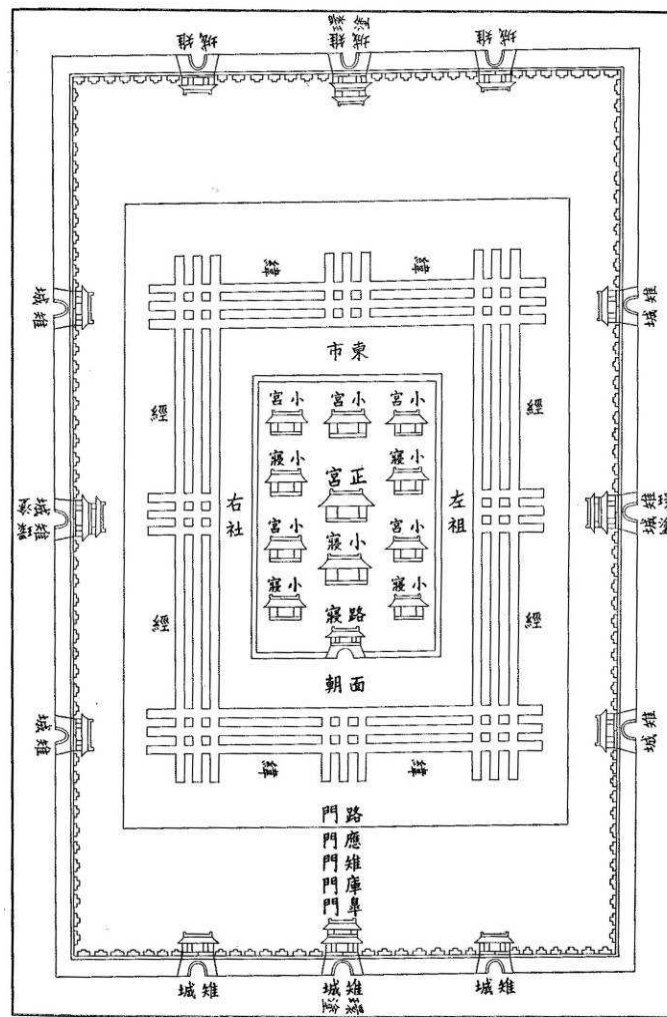
Each square is like a pit or a room, with its own identity (coordinates) and limits. When a piece “falls in” the square, it cannot exit by itself. This isolation and independence of each of the squares on a board is reinforced by its designation. The Spanish names for the squares, “*casillas*” (little houses) or the older “*casas*” (houses) as used in the Alfonso manuscript (in pages 1R 2V and in several other instances throughout the document) reinforce even more the idea of a meaningful space, separated from the rest, with complex entrance and exit rules. In fact, naming the gaming squares “houses” has been common practice since the first board games. In Senet, each of the squares is called *perw* “lesser house” (as opposed to *peraa*, the house of the Pharaoh), and has different attributions (PICCIONE, P. 1980: 56). In the game of Ur, the cuneiform Babylonian text uses the word *bitu* (“house”) where it must certainly mean playing square (FINKEL, I. in FINKEL, I. 2007: 21). We also find the same term applied to the squares in Pachisi, called *manai* (“house”) in Tamilnadu (BALAMBAL, V. 2005: 62). The idea is that each “house” has its own center, its fire, its hearth. In fact, ancient population accounting used “fires” as the

⁴⁷ We should note here that in games like Go the “squares”, the discrete gaming positions, are intersections and not the obvious squares on the board. Therefore, you do play between the squares of the board, but never between the intersections. Even though these ideas seem contradictory, they are not: one just has to think in any illegal positioning of a piece in any game. In Go, there is a superimposed, invisible grid, that defines the “squares” where pieces can be played.

equivalent of houses and families at the same time. Families share the fire at the center of the house as houses share the foundational fire at the center of the city; cities copy this pattern from the Cosmic order and from within man himself (OLIVES, J. 2006: 40-41).

In board games, this grid is used in two ways: either two-dimensionally or one-dimensionally. In the two-dimensional case (Shogi, Xianqi, Hnefatafl, Bagh-chal, Seega, Alquerque, Go...) each square or equivalent intersection has bi-dimensional coordinates. These games need coordinates because the player has the option of moving his pieces in more than one direction. The squares that give shape to the grid or the intersections that create the board of games like Bagh-chal or Alquerque are mathematically the same. We have to understand that the cross that each position represents, as we have seen above, the marking of a center, a point of meeting (LHÔTE, JM. 1976: 112). Therefore, games played “over the lines” are in fact played in a grid-like array of points, distributed in an ordered way.

The giving of coordinates to each square means that each square is different from the others, and related to all those in the vicinity. The position of the pieces cannot be expressed in a meaningful way by a distance from one point but as values of columns and rows, ordinates and abscissas. The clearest example is also one of the simpler games: Tic-tac-toe. Each of the nine possible positions in Three-in-a-row has its own meaning and strategic value, because the “mills” needed to win can be made in any vertical, horizontal or even diagonal pattern. Each place, each square, has its own name and qualities (the central position being stronger) that differentiate it from the rest. This simple idea analogically relates to the sacred structures of traditional cosmological symbolism. The importance of place was one of the key elements of ancient thought and with it the tradition of assigning relative



Map of an ideal capital from the Han dynasty (WHEATHELEY, P. 1971: 415)

positions to planets, values, qualities or deities in a grid layout (PENNICK, N. 1992: 129-130). This conceptual layout of the sacred space is the symbolic basis that leads to both ancient temple and city designs and the patterns behind many game boards.

The sacred *Paramasayika*, the grid of the Hindu tradition, ascribes specific places in the grid to specific deities (PENNICK, N. 1992: 117). The placement of images in a temple, or shrines in a town or the countryside, can be determined by the

relative positions of the deities in the *Paramasayika* grid. It was also used to set the guidelines for starting new settlements in the ancient period (OLIVES, J. 2006: 29). The central nine squares were called “the Square of *Brahmā*”, the sacred space of the Creator. These nine squares are the quintessence of existence, the central axis through which all space and time can be accessed. As we have seen above, is in the center where the connection between planes of existence resides.

This grid is also related to the *Vastupurushamandala*, which depicts the body of the giant *Purusha*, slain to create the world. The particle *vastu* means the wholeness, ordination of what is (the land), and *purusha* is a derivate of *puri* “city”, which means inhabitant. This *mandala* is therefore the cosmic manifestation of the Spirit of God. *Purusha* is the archetypical demiurge of the God-Man, fragmented in the different names that designate the parts of the cosmic body. The biggest and most important are situated in the center, and the lesser at the periphery. The navel, from where the universal being is born, is in the center of the *mandala*, like the lotus flower generated by *Brahmā* in the creational act (OLIVES, J. 2006: 33). The concept of *omphalos* (the navel of the universe), treated above fully coincides with this idea. This three-by-three square, repeating itself infinitely in the horizontal plane, creates and gives shape to the universe.

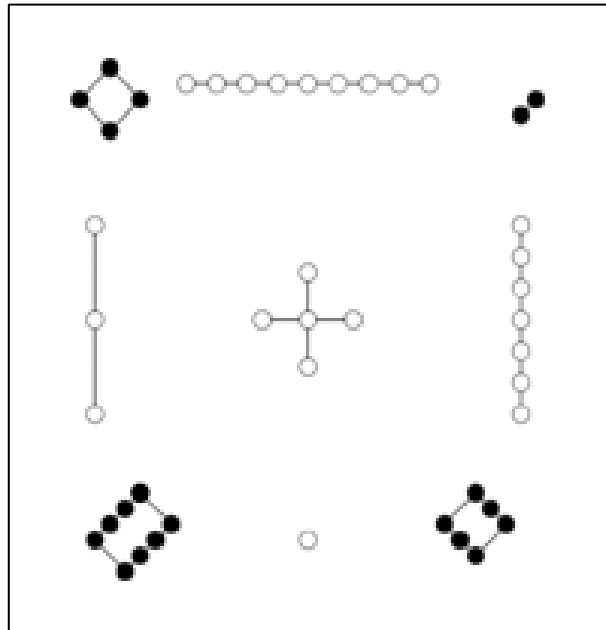


Diagram of the legendary Taoist Lo-shu, associated with the tortoise. Male, odd (yang) numbers are white and female, even (yin) are black. They all add up to fifteen in any given direction (LEGEZA, L. 1976: 111).

This idea is also related to that of magic squares⁴⁸. These mathematical constructs have fascinated humanity throughout the ages, with examples being found in most ancient civilizations. The square, as a symbol, recalls the sense of limit, order and secret and hidden powers. Numbers are the essence of nature, its order and pattern. The magic square, being both a square and a number, is able to virtually gather and mobilize this power, enclosing it in the

⁴⁸ Mathematically speaking, a magic square of order n is an arrangement of n^2 numbers, usually distinct integers, in a square, such that n numbers in all rows, all columns, and both diagonals sum to the same constant. A normal magic square contains the integers from 1 to n^2 . The constant sum in every row, column and diagonal is called the “magic sum” or “magic constant” (M). This magic constant of a usual magic square depends only on its order, (n) that is, the length of its side, and has the value: $M(n) = (n^3 + n)/2$. Therefore, the smallest magic square (if we ignore the trivial one with one row, one column, and just the number one in it) is the one where $n=3$, called “order three magic square”.

However, in a simpler way, and according to Falkener, we can say that a magic square is a square whose cells add up to the same amount, whichever way they are taken (FALKENER, E. 1961: 269).

symbolic representation of the number. They are directly related to the sacred grid, because they represent numerically the proof of an underlying pattern behind the physical form (PENNICK, N. 1982: 157).

According to the legends in Chinese literature, the first magic square appears as early as 2800 B.C., in the *Lo-shu*, (scroll of the Yellow River). The legend recounts that in the ancient time of China, there was once a huge flood. People tried to offer a sacrifice to the river god of one of the rivers in flood, the *Lo* river, to calm his anger. However, every time they tried to offer something a turtle called *Huang-Ho* came out of the river and walked around the sacrifice, only to ignore it and dive back into the river. One day, a child that was watching this daily ritual, noticed a curious figure on the turtle shell. It was an image formed by series of dots, distributed in a certain square pattern. These dots added up to fifteen in whatever direction you counted. Hence, they realized the correct amount of sacrifices to make was fifteen. Therefore, the turtle-god accepted the sacrifice and the flood stopped. The Emperor of the Xia dynasty, who wrote the *Luo-shu*, with all its numerical relationships, recorded this event.

In ancient China, balance was viewed as having *yang*, positive energy, in harmony with *yin*, negative energy, the resulting stability being *Yin-yang*. The number five represented the emperor, China, and the center of everything. It also stood for the five elements that are the basis of everything: fire, earth, metal, water and wood. The central five dots in the *Luo-shu*, are the average or mean of any two numbers which are at opposite sides of the square. The odd numbers are male (*yang*) while the even numbers are female (*yin*). The numbers one, the beginning of all things, and nine, representing completion, are considered the most auspicious, while the number five at the centre is the most powerful. The *Luo-shu* square, in the form of a trigram, gives the basis for

determining the orientation of buildings; traditional Chinese cities and temples were laid out in a square divided into nine zones. It is also a diagrammatic representation of the seasons showing the ratio of *yin* and *yang* in the annual cycle. The same diagram is used in Tibet, and is found in the center of several *mandalas* (PENNICK, N. 1992: 156-157).

The basic symbolic idea behind these squares is that every position in the grid relates to the other in a harmonious way. Therefore, the pieces in a board game based on the grid pattern would share these harmonious relationships. From Shogi, Xianqi and Hnefatafl to Alquerque or Bagh-chal, pieces would be distributed following fully coherent aesthetic and symbolic criteria (symmetry, balance, importance of center, etc.). In games where the coordinates are important, the distribution of pieces would follow these traditional distributions, related to a coherent and recurrent cosmovision.

The other possibility of using the grid that we could discuss briefly is to deconstruct it and use the squares as a one-dimensional path (or at least some of them). The sequential disposition of squares, even though forming a grid, becomes a more or less coiled path with a unique goal (its end). This is the case of games like Ur, Senet, Mehen, Fifty-eight Holes, Thaayam, Ashta-Kashte, Siga or Moshka-patamu. As these are path games, there would not be any choice of lateral movement, only forwards or backwards. The lateral sides of the squares form impassable barriers that simultaneously limit and guide the movement of the pieces from the start to the end. The grid, limiting and defining the space, suddenly becomes a labyrinth (not a maze). Instead of limiting and ordering the space and giving it meaning in the full sense of the expression, it can be more or less deconstructed and transformed into any regular or irregular shape. The construction rule is simple: each square must have just one preceding and one following square. Therefore, we can see that

in fact all these games follow coiled paths comparable with those of traditional labyrinths (PENNICK, N. 1992: 155).

As we have seen when dealing with the symbolism of the center, even though it could seem that in a labyrinth all the squares have the same value, this is a misunderstanding. The labyrinth is a path, so each step gets the player nearer to the goal. As in a passage ritual, the first steps are easy and the later ones progressively more and more difficult. In the same way, we could see the grid path as a series of steps to climb the Cosmic Mountain, as mentioned above. Each line, each square, each stage of a path game can analogically be seen as a phase of an initiation ritual, as a crucial difficulty to be overcome. The lines between the squares are like fiery rivers that have to be crossed over (symbolic or real) bridges (LHÔTE, J.M. 1976: 51). As Lhôte also explains: *“L’itinéraire proposé vers le Paradis est fait d’étapes franches. L’hésitation, les repentirs et surtout les situations fausses ou ambiguës sont sévèrement sanctionnés”* (LHÔTE, J.M. 1976 : 72). Getting out of the path or moving too fast or too slow is sanctioned by the rules of the game: it is considered cheating. All these ideas bring us to relate the grid path to another interesting set of symbols: circles, cycles and spirals.

2.2.5 Circles, cycles and spirals

As we see, cycles, spirals and circular movements relate deeply to board games. They are the symbolic basis of two of the main elements in board games: the movement of the pieces in path games and in a broader sense, gaming turns.

Circles are ever-present in nature. The sun and the moon are round, as are water drops. In addition, the circumpolar stars draw this sacred design each night. Round the only fixed star an (image of the primordial point, the center) the circle becomes the image of the whole heaven. While participating in some

properties of the center, it is at the same time its manifestation: the world seen as a different thing than its Principle (CHAMPEAUX, G. & STERCKX, S. 1972: 24). At the same time, the movement of rotation is linked with the figure of the circle in an essential way. The image of the circle as a wheel evokes the cycles, and therefore restarting, or renovation.

Metaphysically speaking, the essential circular movement is that of created existence round the fixed center represented by the Non-manifested. The immutable Principle at the very center of the universe is the one that legislates, directs and looks after order in the universe, as a prolongation of the creational act. The axis mundi stands still, while the whole of creation moves around it (GUÉNON, R. 1995: 57). This circular movement is clearly exemplified by another symbol, half way between the cross and the circle: the swastika. With its four arms, like the cross, it symbolizes created space, while its bent arm tips evoke rotational movement. In giving movement to creation life is also given. Therefore, movement and life go together, both symbolically and *de facto*. Therefore, the swastika must also be understood as a symbol of life (GUÉNON, R. 1995: 58).

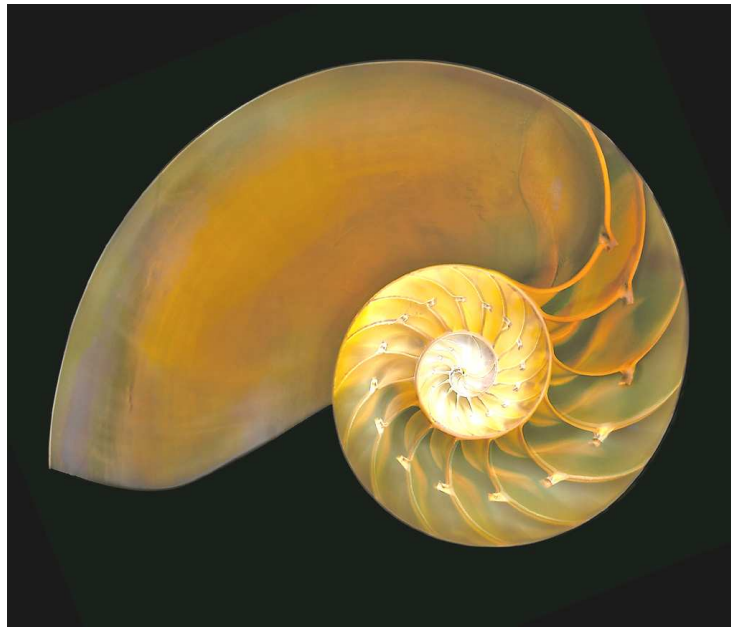
In fact, in many board games pieces are “alive” (that is, in play) while they can move, and vice-versa. One of the peculiarities of capturing or “killing” a gaming piece is taking it out of the game, where it cannot move any more. Mancala games are a good example of this idea of “capturing” pieces and therefore stopping them. In a broader sense, the same idea appears in games such as Alquerque or Bagh-chal. In Hnefatafl, the capture method is in fact to immobilize or hinder the movement of the pieces by enclosing them between two of your own. When a piece is captured, it stays out of the game. In fact, in most games “dead” pieces do not participate in the game until they reenter it somehow if the rules allow, as in Shogi, Pachisi, etc. We could analogically say

the same of the game of Go. Even though pieces do not move, they need to “breathe” to stay on the board. We can understand this “breathing” space as their potential possibility of movement. If we occupy all their potential movement space, they die.

Walk around the altar or the hearth fire is one of the more widespread rites in the world. The Hebrew and Catholics do it round the altar (SAL 26), the Muslims round the *Ka'ba* in *Mecca*, Buddhists round the *stupa*, Tibetans round the temples, Cambodians round their new houses, etc. (CHEVALIER, J. & GHEERBRANT, A. 1999: 298-299). In all cases, it has a cosmic value: imitating the astral or solar cycles round the polar star or the earth. It therefore has the objective of assuring the harmony of the world, adopting in the microcosm the rhythms of the macrocosm. It summarizes and reunites the universe in the temple or monument that represents its center. So then, circular movements relate symbolically to those of the stars, planets and the main light sources: the Sun and the Moon (COOPER, JC. 2002: 51-52). As in the mythical invention of the Nard, “the movements of the pieces are compared to the movements of the constellations and with the revolution of the firmament” (MARK, M. as in FIKEL, I. 2007: 143).

Even though there are few games based on purely circular diagrams (namely Mehen, Zohn-Ahl and Nyout in our research), we have to include here all games that have a clear “gravitational” or “axial” point, round which pieces are moved. That would include other games like Pachisi or Patolli, which are played on crosses, but also Tablas, Penta Grammai and of course, Mancala games⁴⁹. In all these games, we can see that the pieces analogically reproduce

⁴⁹ It may seem strange not to cite the Phaistos disk in this research. We have omitted it on purpose, because we consider that its interpretation as a game board still presents many weak points. Even though the resemblances with other games (like Mehen) may seem overwhelming, they are purely based on the general shape, not on a concise interpretation of its symbols. What we cannot deny is



Section of a Nautilus shell. In it, one can observe the perfect spiral created by its natural growing.

what the ritual would, but in an abstract manner. If the board is the world, the circular movement of the pieces reinforces this sense, as well as its center, its limits and the harmony of the whole. In playing and moving the pieces, all the symbolism becomes actualized.

The spiral is the natural shape of the generation of life (the optimal, less energy-consuming way to grow), and has always been related to labyrinths (LHÔTE, JM. 1976: 82-83). This image hardly appears in ancient board games as such, but we have a great example in the Egyptian game Mehen. In the game of Mehen (*Mhn*), the image of a coiled serpent was sincretized with the homonymous deity (Mehen). The evidence is scarce, so we do not know if the deity was inspired by the game or if the game was inspired by an early myth. The most probable explanation is given by Bellesort: “...*le mhn n'était pas joué*

their symbolical correspondence, given by the spiral that gives shape to both. In both artefacts, disc and game, there is a clear relationship with all the symbolical elements that are dealt with here because they are based on the same cosmological tradition.

matériellement qu'aux époques prédynastique et thinite, alors qu'à l'Ancien Empire il n'aurait subsisté que dans l'univers funéraire. D'un jeu populaire, il serait passé à un rang mythologique."

(BELLESORT, M. 1992: 8). We have a superb example of the function of the spiral in a funerary context in Mehen. In the Pyramid Text 332, the dead king is said to have “come forth from Mehen, having come (away) from his fiery breath”. The king’s journey is then linked to “travelling to the two skies” and “returning to the Two Lands” (KENDALL, T. in FINKEL, I. 2007: 41). This implies that the king has travelled all the way up the serpent’s body and then returned to the tail, a trek which is compared to an ascension to heaven (that is, death) and a return to earth, reborn with new life.

In fact, the path to the centre is the only important feature of labyrinths. Walls are unimportant because their only function is to mark a path, the fixed pattern of movement. There are no choices to be made, only to keep advancing or to give up. A certain level of maturity is required to understand the shape of the labyrinth, as well as to make the decision to venture into it. The interior space is not a clear and wide alley, but filled with the maximum number of possible twists and turns. This implies the greatest loss of time and the greatest physical exertion for the walker on their way to the goal: the centre. These who can stand the strain, and persevere, will ultimately reach their goal. This experience is symbolic of the conformity to natural laws and is not limited to subjective or arbitrary experience: it is a transitional rite (KERN, H. 2000:30). Many so-called “race” games, such as Ashta-kashte or Mehen, follow coiled paths comparable with those of traditional labyrinths (PENNICK, N. 1992: 155). However, every other path game still has a complicated path to follow, and therefore the same analogy can be applied to them.

This complicated path is analogous to the steep climb up a mountain. As we will see below, the spiral, this ascension, has to be seen as the symbol for

spiritual improvement. As explained above, it must be difficult to reach the end of the path, the goal, in this type of game. Therefore, reaching the goal in path games is a continued struggle to advance. Your pieces are hindered by the pieces of other players trying to reach the same objective. Dead pieces start again, and the movement round the board is repeated again and again until something definitive happens (i.e. someone wins). All along the path, the same squares are encountered in the same positions each time the pieces pass across the board. This disposition is the same even in different sessions of the same game. What changes, then? The game changes each time due to the decisions of the players and their luck in throwing the dice. There is the perpetual change, always evolving and adapting but at the same time there is repetition. The fixed board and rules are the axes around which the game develops, and are the pattern that allows us to play a certain game and not another.

We can see a clear analogical relationship between this idea and the way in which sacred time develops. The modern historical scientists' linear concept of time strikingly differs from the traditional one, that of the ancient Greeks or Indians. For example, we find in Hesiod's *Works and Days* a series of ages (gold, silver, bronze, heroic, and iron) similar to the Indian *yugas* (ages). In both systems, the quality of human life becomes progressively worse with each passing age and then starts again. Therefore, most of the ancient societies believed that time progressed in a cyclical manner, in a continuous “start from the very beginning” (ELIADE, M. 1999: 78). They observed the cyclical nature of day and night, and the similar repetitive pattern of seasons year after year. They also observed the monthly cycles of the moon's change of form, the displacement of the sun within the constellations, etc. This knowledge was extended in a fractal way over larger and smaller time scales, resulting in the complex and thousand-year span ancient calendars. Time is not a linear succession of trivial events that would never be repeated but the repetition of

important and meaningful events. The correct attitude when faced with this vision is not to renounce the historical situation, linear time, but to understand the underlying framework that cyclical time represents: the Great Time behind all times (ELIADE, M. 1999: 76).

Sacred time (as opposed to profane duration) is based on repetitions and rhythms. For the traditional mentality, time is not homogeneous: it presents cyclically repeated favourable and less favourable lapses: moments of the day, days of the year or years in time. These peculiarities are linked to natural or cosmic rhythms. In fact, cosmic rhythms in ancient cosmological tradition are manifestations of the underlying fundamental sacredness of the Cosmos (ELIADE, M. 1997: 347). Therefore, natural patterns (i.e. dawn and dusk) are seen as natural rituals, executed by creation itself, with extreme precision. The same happens throughout the year: the solstices and equinoxes, the passing of the seasons, reminding us that the same dates bring the same events. Every event is a cyclical repetition of the primal event that happened *in illo tempore*. These moments of hierophany return year after year. However, every time something is new, something changes. New voices, new eyes, and new tongues restore the mythical moment, thus refreshing it (ELIADE, M. 1997: 352-353). This reminds us of a perpetual⁵⁰ spiral: always passing through the same positions, but advancing, because each loop is different from the last.

We can analogically relate this periodicity with a feature of board games that can fully relate to circles and cycles: the continuous flow of changing turns. The word itself, “turn”, evokes the circular movement and the changes of state. In board games, players relate to each other in a balanced way with the

⁵⁰ Note here that we talk about “perpetual” and not “eternal” time. Creation is perishable by definition. At the same time, there was a time when it did not exist. “Eternal” implies “out of time”, and therefore not limited to starting or ending.

underlying symmetry of gaming turns. Therefore, even if the forces or disposition of pieces is unequal, their participation in the game is not (LHÔTE, JM. 1976: 48). Alternate turns are a common rule in ancient board games. Variations to this rule are seen as exceptions, always related to very good or bad throws (like the twenty-five in Pachisi) (BELL, RC. 1979: 9) or to special squares on the board (the “dry river beds” that make you forfeit a turn in Zohn-ahl) (BELL, RC. 1979: 4). Even then, these squares affect both players and they have the same alternate opportunities of landing on them. So then, time plays a very important role in the cyclical symbolism of games.

Humans tend to represent what is abstract with concrete and tangible elements. That is why, to think about time we situate and represent time in space. We have to rely on other dimensions in order to count, explain or even understand what is “after” and what is “before”. For example, when we measure time with watches their hands go round in a three hundred and sixty degrees motion. Movement of the hands is clockwise, always towards the “after”. Time becomes degrees of rotation, space, because only through space, can it be represented. More degrees mean later in terms of time. As another example, closer to games, we have calendars. In calendars we use nowadays “left” and “up” to mean “before”, and “right” and “down” to mean “after”. This idea applied to board games can clearly be seen in those based on paths, as we started to explain above. Each square on the grid path follows on from the previous one. In this way, the space defined by the squares becomes time, because backwards movement is impossible. When space shifts into time “before” is left, “after” is right, and “now” is the square where the piece is. The game advances (time) because pieces advance or change their position (space).

Symbolic references relating games and calendars are legion. In the *Mahabharata*, Backgammon is related to time and seasons. The two dice are connected to night and day, and the game of dice with the six Seasons to the two groups of six houses on each side of a Backgammon board (SOAR, M. in FINKEL, I. 2007: 221).

The same idea appears in the description of the legendary invention of Nard in the *Chatrang-namak*: “I will make 10 white, like day, and 15 black like night. I will make a single die, like the revolution of the constellations and the turning of the zodiac” (SOAR, M. in FINKEL, I. 2007: 221). In fact, Indian Backgammon was seen to represent cosmic time, *karma* and rebirth. It was also structured on astronomical and cosmogonical principles, such as lunar cycles and eclipses (SOAR, M. in FINKEL, I. 2007: 228-229). The same idea appears in the Japanese game *Sugoroku*, as it is said to represent the twelve months with its twelve compartments. Black and white men are said to represent day and night (W.W.N. 1890: 208). In addition, we also find the same analogies in a mediaeval Greek text, as cited by W.W.N: “He determined that the board was the terrestrial world; the twelve houses the number of the zodiac; the dice and the points within it, the seven planets; the tower [into which the dice were thrown], the heights of heaven, from which are distributed all things good and evil” (W.W.N. 1890: 208).

Not only path games relate to the calendar: the structure of the game of Go has sometimes been referred to as containing the pattern of time. Ancient Chinese tradition links the 361 intersections of the more common Weiqi boards (19x19 intersections that is, 18x18 squares) with the number of days in a year (COPPIN, F. & MARCHAND, M. 2006: 87). There are some passages in *Forget your sorrows and count your blessings* from the early 12th century explaining: “The number of all things in Nature begins with one. The points of the Go board

number three hundred and sixty plus one. One is the first of all living numbers. It occupies the polar point of the board around which the four quarters revolve. The other three hundred and sixty points represent the number of days in a year. They are divided into four quarters which represent the four seasons” – From *Go manual in thirteen chapters* (FAIRBAIRN, J. in FINKEL, I. 2007: 134).

In a more abstract sense, we could see that in fact all board games are structurally related to cyclical time. Once a turn has ended and a gaming piece has been moved, that becomes the past of the game and no rectifications are possible. There is no going back in play, as there is no going back in time. The players follow this alternating rhythm in a seamless dance in any board game. They are always subdued to their greatest abstraction: game turns. This alternating division of time is an abstraction of normal time, as time in the vulgar sense of the world is a human rationalization of the sequential and cyclical events happening around him. Therefore, in games time can be reduced to a simpler concept, modified and understood. “Gaming time”, separated from usual time, has its own rules and clear limits. This time is under the players’ control, and only affects them when they want. The sequential use of turns is what displaces the importance from the physical world to the intellectual world of board game. Turns represent and summarize the meaningful moments of the gaming action. They are the interesting moments of the game, when the board changes through the actions of the players: the moments that make the pieces (and the game) advance. Players could stall forever in their turn, never finishing their game, but that would prevent them from achieving the goal.

So then, we see that in board games (and in all other kinds of games) gaming time is limited. No one can play all the time, because the definition of play

itself requires it to be an activity different from normal life. Therefore, games start and end, most of the time at player's discretion. As Murray asserts, all board games are limited in time and space. In time, they have a definite beginning and a definite ending: in space, the action takes place within a definite area, that of the board, which is marked off beforehand, either materially or mentally, within which an absolute and prescribed order must be observed (MURRAY, HRJ. 1951: 5).

In the analogical and symbolic field, the divine play between the pair of gods Shiva and Parvati represents the continuity of the universe and its re-absorption. In the mythological *Puranas* they cyclically create and destroy the worlds through playing Pachisi, using humans as pawns and night and day as dice (GABRIEL, K. 1998). When the game ends, the universe ends: it is the *pralaya*, the destruction and re-absorption of the world. While there is movement and play, there is creation, expansion change. Once the movement (the turns) stop,



Shiva and Parvati playing Chaupar. Note the third eye in Shiva's forehead.

the world implodes and waits to be recreated. It is the end of a cosmic cycle, a *kalpa* (PUJOL, O. 2005: 621). Therefore, symbols of time are circles or other cyclical arrangements where the end meets the beginning, or without start and end (BERGER, F. 2003: 65).

Both the cyclical movement of the pieces and the concept of the passing of time coincide in the figure of dice because is through them that the speed of the game is set. In fact, the four-sided dice in Pachisi are directly identified with the passing of time, more concretely to the *yugas*, the four Indian ages of creation. At the same time, the goal of returning to the center suggests the triumph over spatiotemporal conditions (ELIADE, M. 1987: 470). The names applied to the four *yugas* take their names from the four possible throws of the dice. *Krta yuga*, the best possible age is also the name of the best throw (four) meaning perfection. *Tretâ yuga* takes its name from the throw of three, because in the second age men only followed three-quarters of the *dharma*. The next age, *dvâpara yuga*, takes its name from the throw of two, because in that age man only followed one half of the *dharma*. Finally the last *yuga*, called *kali yuga*, takes the name from the worst throw (one). This age is called “the worst age”, because this is when man reaches the highest level of disintegration (ELIADE, M. 1999: 69-70). This is, according to the Hindu doctrine, the age in where we are living.

3. ANCIENT BOARD GAMES AS ANTHROPOGRAMS

As we have seen, in traditional cosmological symbolism, structural correlation and parallelism in all things and in particular between the universe and man is a basic notion. Everything that we say about the community, the city or the cosmos, is at the same time speaking about man himself. Therefore, *mandalas* can (and must) be seen not only as cosmological images but also as physio-psychograms, images of man, and anthropograms. This means that they refer to one's body but also to one's psyche in the widest and most transcendental sense available. Therefore, symbols that are apparently referred to organization at a macrocosmic level are in fact also stressing the microcosmic level that man at both his physical and spiritual levels represents. As in the Hindu tradition, not only is the body analogous to the universe, in its physical extent and divisions, but it also contains within itself all the Gods (TUCCI, G. 2001: 108).

Therefore, these two points of view, macrocosmic and microcosmic, happen at the same time and allow us to understand hidden aspects of the other. As Plato explains: "suppose a short-sighted person had been asked by some one to read small letters from a distance; and it occurred to someone else that they might be found in another place which was larger and in which the letters were larger --if they were the same and he could read the larger letters first, and then proceed to the lesser [...] I propose therefore that we enquire into the nature of justice and injustice, first as they appear in the State, and secondly in the individual, proceeding from the greater to the lesser and comparing them." (REP. II 10, 368D-369A).

We propose the same thing: having studied the cosmological implications of board games, let us go on to study their personal, psychological and spiritual

implications. In fact, as we have seen, as we get deeper into the symbology of board games, it starts to transcend the cosmos itself and get nearer to man. The further away we go in developing the idea of center, cardinality, limits or cycles the easier it is to end up talking not about the cosmos as an outer abstract being but about the concrete human, each of us. Everything we have already said about centrality, cardinality, limits and cycles of temples, cities and the whole cosmos will be found again when looking towards ourselves. Moreover, this wider vision would let us study all the metagaming elements present in board games (the players, the process of play itself, the rules, etc.) which did not fit into the geometrical research conducted until now.

So then, what we will do in this chapter is study the key anthropological implications of the gaming elements essential to board games, beyond the physical board or the pieces themselves. This will complete the research above which was based on primal geometry with deeper symbolic relationships. For that reason, we shift the weight of our research in the following chapters from primal geometry to the essential questions about human life. As we have seen throughout the last chapter, boards can be seen as symbolic representations of the cosmos. Now we see that in fact, they are also representations of the “inner cosmos”, all the different “parts” of the human being, especially those related to transcendence.

We have explained above how board games give shape to a ritual or sacred space. In the playing space something different from reality happens: a meaningful activity, intellectually different from hunting or sowing. The playing space, the board, becomes a sacred space with special rules. Therefore, if the board is a sacred space, playing a game can be seen as a rite, the actualization of a myth. Therefore, the vehicular idea behind this chapter is to further develop the sacred symbol/myth/rite triad that forms the basis of

ancient spiritual traditions (OLIVES, J. 2006: 28). If the correspondence between board games and ancient cosmology works at a symbolic level, it is easy to see that this analogy can be applied to the other two aspects of sacred tradition: myths and rites.

3.1 Play and myth

For many years, myths have been rejected as a true way of explaining anything about man, as opposed to history and science. However, this vision comes from a very limited understanding of what myths are. In fact, “the opposite of history is not myth. The opposite of history is forgetfulness.” (OLSON, A. 1980: 6). Myths are an amazingly huge repository of knowledge. But myths have not seemed to be interesting, because the symbolic language used in them was mainly forgotten and rejected by the scientific world. This is because the interesting and meaningful ideas contained in myths do not connect with our logical understanding but rather our need for a deeper intuitive interpretation. As Erik Fromm points out: “*En tout cas, nous sentons bien que, ignorés, méprisés ou respectés, les mythes appartiennent à un monde totalement étranger à notre pensée logique*” (FROMM, E. 1989: 9-10).

The rationalistic viewpoint on myths only allows two possible interpretations: either myths have to be taken literally as idealized historical events or they have to be seen as naïve pre-scientific explanations of history and the natural world. The “historicist” possibility reduces the myth to an idealization, exaggeration or elaboration about a concrete historical fact that the established power wanted their subjects to believe. The “scientific” interpretation situates myth before the change from superstitious ignorance to modern science. Myths (mainly cosmogonic myths) are seen as superstitious explanations of

natural phenomena that ancient people used to explain the world and were abandoned as soon as a scientific explanation was given.

In the last century, due to the research in traditional studies, compared religions and symbolism, conducted by S. Freud and C. Jung⁵¹, the general opinion against the value of myths and dreams has improved. In recovering interest in the deep and true meaning of myths, they did the great job of “*rectificar la actitud unilateral de esos hombres modernos que mantienen que esos símbolos pertenecen a los pueblos de la antigüedad o las ‘atrasadas’ tribus modernas, y, por tanto, carecen de la importancia para las complejidades de la vida moderna.*” (JUNG, C. 1997: 106). This change of mind helped to point out that even though in ancient times some philosophical tendencies (like Sophism) separated “myth” from “reason”, this didn’t always mean disregarding the former as nonsense. They always admitted that the mythical narration was the perfect way of explaining philosophical truths. Even though he criticized poets and poetical narration, Plato took this same idea when he used myths as a method to explain certain truths that couldn’t be understood with pure rational reasoning (FERRATER, J. 1970: 283).

However, if we take what we have seen about traditional cosmological symbolism, there is a third way of understanding myths that not only completes but also consistently explains their meaning. Myths must be understood as narrations of episodes that happen in a special “out of everything” space and time, *in illo tempore*. They refer to archetypal human nature, and therefore they are narrations of truth, *vera narratio*. A myth is not fiction, illusion or lie, but a symbolic expression of the real world. It is a sacred tale that explains religious and philosophical ideas through examples. Man in

⁵¹ With E. Cassirer, M. Eliade, L. Strauss, A. Coomaraswamy, J. Olives and many others.

antiquity did not separate their daily activities from their beliefs (LHÔTE, JM. 1994: 72). Therefore, all narratives about legendary heroes and kings and their deeds are directly connected to the person that is telling and hearing them. As Olives explains: *“Todo eso podría tomarse como mera superstición si no hiciéramos el esfuerzo de recordar el valor que tienen los símbolos en la mentalidad arcaica y primitiva.”* (OLIVES, J. 2006: 41). The mythical time is not a remote past but a perennial present, connected at a very deep level to both narrator and public. All myths are based and told in symbolic language, in which feelings, internal experiences and thoughts are seen and explained as if they were external. In seeing them develop outside, as heroes, gods and monsters, we are led to find out more about, and maybe even to understand, our inner cosmos.

For this reason, myths and legends had a great influence on our ancestors, directly affecting their daily lives and decisions. As an example, the Regional inspector Tao Kan (259-334 AD) threw into the Yangtze all Weiqi and Sugoroku boards in his jurisdiction. The Weiqi boards were thrown away because of the legend about its origin. The legend explained how it was invented by Emperor Shun for instructing his fool son (FAIRBAIRN, J. in FINKEL, I. 2006: 133). Therefore, Tao Kan decided that nobody in his region would be fool, and therefore nobody would play Weiqi, destroying every board. Tao Kan also destroyed the Sugoroku boards because of a legend. As there was a legend saying how the cruel tyrant Zhou invented Sugoroku, the mere existence of the game could perpetuate his foul memory.

We can see that all the energy, interest and speculative and theoretical capacity invested by modern western man in science and technique was dedicated to myth and legend by ancient cultures (CIRLOT, JE. 1991: 16). As mythical consciousness is one of the concrete manifestations of full human consciousness, studying myths sheds some light onto the latter (FERRATER, J.

1970: 284). In this way, myths are also a way to understand ancient cultures from within, and in doing this, understand our own cultural roots.

Telling a myth is to proclaim what happened *ab initio* (ELIADE, M. 1998: 72). Greeks used a special verbal tense called *αόριστος* (invisible, indefinable) when telling myths and epic poems. This tense automatically situated the public in an “As if...” mood, essential to understand this kind of narrative⁵². The *aoristos* verbal tense has the same function in suspending reality as the rules in board games. When playing, as we have seen, normal time and rules cease to apply to players. Sitting round a board and moving the pieces on it suspends reality in the same way that the *aoristos* verbal tense does. It is a willing suspension, and in case of need or danger, could be immediately abolished. However, during this span of time the players connect with the mythical time when the rules of the game were set. Explaining the rules is telling the myth again, and their actualization (actually playing the game) transforms the players into the heroes of the adventure. The analogical relationship between myths and board games works at this ontological level.

As the game develops and rules are actualized, it is in fact happening following the model rules set in mythical time. This keeps the rules in a perennial present at the same time that gives them authority, as we will see below.

3.1.1 The heroic challenge

The overcoming of great challenges is the main trait of the heroic myths. The myth begins with a challenging situation that threatens the hero himself or the whole of creation and ends with a stable situation that resolves the challenge.

⁵² We can still find this kind of stylistic rhetoric in the formula “Once upon a time...”.

This basic narrative structure, from challenge to fixed result can be traced in every mythical tradition (DUCH, L. 1998: 180).

At the same time, this same structure can be symbolically applied to board games. Games, as opposed to childish casual play, are inconceivable without a more or less fixed set of rules. These rules are incomplete if they do not have a goal: that is, what players are aiming to achieve (reach somewhere, kill a piece, empty the board, fill the board, etc.). That goal, whichever it is, must present some kind of difficulty or challenge to all players. Without that difficulty, that “something not trivial” to achieve, there is no game. In fact, if we knew how the game ended at the start, we would not be playing a game at all, but performing a theatrical play. So then, one of the basic premises of games is that the outcome is unknown. That uncertainty is what moves a player to play, what makes playing a game interesting and fun. That is, we see the game as a challenge. This key word, “challenge”, comes to English from the Latin *calumnia*. In the middle ages, a challenge was still an accusation against honour, a legal dispute. From that sense, it evolved to the meaning it has today: “a call to fight”, to oppose or be opposed in some activity. In games this is the common meaning, what we understand as challenge: the element that prevents us from obtaining what we want (the goal) in a ludic way.

Achieving the goals in a game is symbolically analogous to an image of life, an initiation journey full of obstacles that the hero must overcome. The journey of the hero is a metaphor for individual spiritual development. This universal archetypal figure, the hero, is the best-known and most common myth around the world (JUNG, C. 1997: 110). When the hero achieves its goal, overcoming all difficulties, he usually dies. This symbolic death of the hero is at the same time his liberation, his ascension to higher levels of consciousness and being (JUNG, C. 1997: 112).

Following the same principle, games, and especially board games can be seen as symbolizing a transcendence environment, taking the form of a “difficult passage”, the though journey. The player, as hero or a aspiring initiate, must overcome the difficulties of this challenge in order to become who he is, or to be considered part of the community (that is, to win). As Eliade explains: *“El héroe de un cuento de iniciación debe pasar por ‘donde se encuentran la noche y el día’, o ballar una puerta en un muro que no ofrece ninguna, o subir al Cielo por un pasaje que no se abre más que un instante, pasar entre dos muelas en movimiento continuo, entre dos rocas que se tocan en todo momento e incluso entre las mandíbulas de un monstruo, etc. Todas estas imágenes místicas expresan la necesidad de trascender los contrarios, de abolir la polaridad que caracteriza la condición humana para acceder a la realidad última”* (ELIADE, M. 1974: 91). The challenge that a game presents is symbolically analogous to the mythical idea of the though journey, so all the playing environment becomes a test of wit and intelligence. The games perform as rites of passage, or ordeal, as well as a reiteration of the cosmogony, the reestablishment of the cosmos out of chaos (ELIADE, M. 1987: 471).

This relationship becomes intuitively clear if we think about those board games based on paths, where the goal is to reach a specific square. The movement of the pawn (or pawns) across the board is analogically and metaphorically related to the passing of man (the player, but everyman too) through life, with the successful playing and ending of the game being his spiritual ascension or illumination (ELIADE, M. 2003: 131–133). This vital voyage is the story of an individual that leaves his home and family, and embarks on an adventure. After overcoming great difficulties and performing onerous deeds he finally returns triumphant to his home. The effort of conquering the truth about the world and oneself appears symbolically in myths as combats with mythical beasts or seemingly never-ending tasks. This heroic voyage is

interpreted as a metaphor of the individual spiritual process, and the physical and mental deeds carried out by the hero in the spiritual effort of self-improvement (LEIGH, B. 2002: 38-39). This mythological figure is even clearer when we talk about a ritual search, called *queste* in the Arthurian legends (the origin of the word *quest*). The effort in conquering the truth and reaching the spiritual center, “oneself”, is represented in symbols and myths by hard work, fights, endeavors, etc. Monsters and other natural difficulties analogically represent the instinctive powers of man that chain him and pull him “down”, keeping him from achieving happiness (CIRLOT, JE. 1991: 45). The incidences and situations of the pieces in the game are analogous to the mythical adventures of a traveler on his journey. It is the player’s experience of mythical reality through the playing pieces (FARGAS, A. 1997: 16).

Even though there were other kinds of games, those based on paths were the most common kind of ancient board game. According to Lhôte this could be a metaphorical embodiment of the awareness of our ephemeral existence in this world. In other words, as life and death had such a great weight in the beliefs of ancient civilizations it is easy to understand how the passing of man through life was the symbolic basis of a huge amount of ancient board games (LHÔTE JM. 1994: 129). This applies to Mehen and Senet explicitly, but also to Twenty Squares, Fifty-eight Holes, Thaayam, Ashta-Kaste, Siga, Moksha-Patamu and Pachisi. We could say that in Pachisi the pieces move round the world analogically, following a circular path in trying to reach the center. This objective, “reaching the center”, can be seen as the final liberation of the soul and of the space-temporal limitations of man (ELIADE, M. 1987: 470). Their movement is dictated both by the throwing of dice (or another random generating implement, acting as the will of God) and by the will of the player, who decides which piece moves each time. The four-sided dice used in some

Indian versions have been related to the four ages of man (*Yugas*) (BIARDEAU, M. 1981: 157).

In games like Shogi, or Chaturanga we can see a similar analogy. As we have seen, we can relate the board analogically to the world and so we can relate it to human beings, through the macrocosm-microcosm analogy. The individual pieces symbolize parts (in a psychological or spiritual sense) or features of man, as well as functions in society or forces in the world (LHÔTE, JM. 1996: 116-117). Hindu tradition explicitly related the different pieces of Chaturanga to the qualities of the ruler. This was identified with the center of the eight-radius wheel, the “engine” of the world which makes it move and advance. There is a complete parallelism between the king and the cosmic axis, because he draws his power from the gods, and so becomes the living center of the universe. The parallelism between the movements in all eight directions of the “king” or “emperor” piece in games like Chaturanga, Shogi or Xianqi is an analogy of the idea of the living center. The image of the “king” represents the immortal soul of the raja, which can go anywhere (i.e. move in any direction). The horse is the mental quickness of the governor, and his nobility (COOPER, JC. 2000: 35-36). The elephant is the “ego” of the raja, his capacity to reign with power, but at the same time is one of the forms of Shiva, and so represents his knowledge, memory and wisdom. In the *Bhagavad-Gîtâ*, the ship is the symbol of the Ship of Knowledge, and in Buddhism, Buddha is sometimes referred to as the Great Sailor. Therefore, the game is not the reenactment of a war or a real confrontation, but rather a complex form of ritual. In fact, it is still played as a meditation ritual in the Buddhist Full Moon holy days and during weddings (BIEDERMANN, H. 2000: 253).

Therefore, if we take a look at the gaming environment, there is a clear analogy between heroic foundational myths and the setting of gaming rules.

The hero in his civilizing role sets new rules and gives new abilities to his people. By performing a civilizing act, founding the city or teaching how to sow, the hero establishes a foundational act, which would be ritualized, repeated and remembered by the community (OLIVES, J. 2006: 63). Therefore, the hero is also a founder, and known as *οικίστες* in the case of the ancient foundation of cities. The founder of the city is also the law-giver, as we will see. This fact is analogically applicable to the rules of games. The hero, the creator of the game, embeds in it his knowledge and civilizing intentions. In order to do so, he establishes a set of rules both for setting up the game and for playing it. Native American traditions are full of myths and legends that reveal the sacred significance of gambling and the divine origin, power and symbolism of games. The Navajo call these myths “legends of games”, and they talk about both the mythical origin of games and their rules (GABRIEL, K. 1996: 17).

However, the most famous legend about board games is probably that of the origins of Chess, whose protagonist is the son of the Brahman Dahir. This half-real, half-mythical character is known by probably as many names (Sissa, Sessa, Lahur Sessa, Caïssa...), as there are variants of the legend (CARDONA, F. 2000: 13). These variations of the legend, while differing in the details, repeat the same basic schema: a king, a *kshatriya*, has a problem; Sissa, a wise *brahman*, creates the game to teach a lesson. In this way, the wise man teaches the Good Way to the king through a game. Then, after the problem has apparently been solved, Sissa asks for an impossible payment, through his mathematical prowess, giving a second lesson in humility to the king.

The most widespread version tells the story of the king Shirdam (at the beginning of the 5th century) who had become lazy and blind with pride because of his flatterers. He believed himself invincible, and he ruled the land

without any wisdom. Sissa decided to open his eyes by teaching him a lesson in humility he could not forget. The legend relates how Sissa invented Chess to teach the king that he alone could not do anything to save the land, and he depended on his subjects to reign properly (CARDONA, F. 2000: 9-10). When the king recognized his failure, he wanted to reward Sissa in whichever way he asked. He asked for a grain of wheat on the first square of the board, two on the second, four on the third... and so on up to the end of the board. The king accepted without thinking, but when the counsellors started counting, they found that the cipher that Sissa was asking for was 18,446,744,073,709,551,615 wheat grains⁵³, an impossible quantity to amass even nowadays over thousands of years of production.

In another version, the Hindu monarch is called Kaid. The legend says that he had beaten all his enemies thanks to his consummate military tactics. Having finished with fighting, the country was happy and living in peace but king Kaid was getting more and more bored. This boredom dragged the King into permanent sadness, and a growing death wish. Sissa brought a game where he could practise the art of war, with all its tactics and maths involved. Then Sissa asked for the huge amount of wheat (CARDONA, F. 2000: 10-11).

A further version of the legend recounts the sadness of king Ladava in India. After the death of his son Ajamir, killed by Varanguil the barbarian, he became obsessed with the battle that led to his son's demise. He desperately tried to think about what had gone wrong during the battle and what could have been done to save his son. Sissa came to the court with the game of Chess to teach Ladava that also sometimes in the same way, a piece has to be sacrificed to win the game, sacrifices have to be made in order to reign over a country. Without

⁵³ This is the result of the addition $2^0+2^1+2^2+2^3+\dots+2^{62}+2^{63}$ which demonstrates the huge mathematical prowess of Sissa.

a prince, the country would suffer; without a King, the country would die. For this lesson Sissa demanded his wheat payment (CARDONA, F. 2000: 11-13).

As we see, these three versions of the same legend have many elements in common. In the first place, the creation of the game is attributed to a single person from the priest caste. Secondly, with the game this priest teaches a vital lesson to the king, which saves the country. In the third place, he always asks for an impossible payment with a cunning heroic deed, as proof of his intelligence and mathematical prowess. The powerful king (the image of the triumphant hero) is amazed (and therefore annihilated) by superior wisdom, as a way of telling the “death” of the once victorious hero.

With regard to Chess, there is another legend concerning not with the origins of the game but rather its journey from India to Persia (CARDONA, F. 2000: 14-17). The Arab poet Fidoursi, in around the 10th century, in his *Book of Kings*, mentioned one relating Chess to the origins of Backgammon. The legend says that a Hindu raja, a vassal of Emperor Cosroes of Persia, sent the emperor an ambassador loaded with presents (including a Chess board with its pieces) and a letter. In the letter, Cosroes was challenged to work at before the end of the week how the strange game was played. If he was unable to do so, the Hindu raja would be freed from paying any tribute, and Persia would lose its hegemony over India. The wise men in Cosroes’ court tried to decipher the game for six days and nights, without having a clue how the game was played. Finally, his first minister Wuzurg-Mihr (sometimes-spelled Buzurjmihr) was able to do so in just one day and one night, keeping the honor and supremacy of Persia over India⁵⁴. This legend does not stop here, but is continued with

⁵⁴ Some authors intend to see in this information two things that should be pointed out. First of all, the Indian origin of Chess, and in second place the demonstration that Chess was already been played in the Persian form in the 6th century, when Cosroes reigned. As for the first assumption, we have to

another deed of wisdom by Wuzurg-Mihr (CHEVALIER, J. 1999: 393-394). Once the Persian wise man finds how Chess works, he challenges the Indian court with a similar task. To doing so, he created Backgammon and presented it to the Indian raja. The wise men of the Indian court were unable to work out how to play the game, thereby acknowledging the supremacy of Persia. Afterwards, the Persian king asked Wuzurg-Mihr to explain the game. He answered by explaining all the symbolism he had embedded in the game and his description of what he had devised is quoted here following Christopher Brunner's translation: "Wuzurg-Mihr said: 'Of the rulers during this millennium, Ardashir was the most effective and wise; I will name the game Noble-(is)-Ardashir [*new-ardashir* contracted to *nard*] in Ardashir's name. I will make the board of Noble-(is)-Ardashir like Spandarmad, the Earth. I will make thirty counters like the thirty *nycthemera* [nights and days]; I will make fifteen white like day and fifteen black like night.'" (FIDOURSI as in MCKENZIE, C. & FINKEL, I. 2004: 89)

After this, he continued describing the symbolism of the die, assigning cosmic and religious references to each face: "I will make a single die, like the revolutions of the constellations and the turning of the zodiac. I will make a 'one' on the die, just as Ohrmazd is one; all well-being was created by him. I will make a 'two', just like the material existence and the invisible. I will make a 'three', just like good thought, good speech, good works and thought, words, deeds. I will make a 'four' like the four material elements of which a person [consists] and the world's four directions – east west, south and north. I will make a 'five', like the five light-sources – sun, moon, stars, fire and the lightning that comes from the sky. I will make a 'six', like the creating of

note that in the time of Fidoursi any original or strange invention of unknown origin was attributed to India. As for the second one, Fidoursi wrote this text four hundred years after the facts he describes, so he would most probably adapt the names of the pieces to those known for his contemporaries.

creatures during the six periods of the year-divisions.” (FIDOURSI as in MCKENZIE, C. & FINKEL, I. 2004: 89)

Finally, he talks about the rules of the game: “I will make an arrangement of Noble-(is)-Ardashir upon the board just like the lord Ohrmazd, when he created the creatures in the world. The revolving and turning of the counters according to the die is just like people in the world: their bond has been tied to the invisible beings; they revolve and move according to the seven [planets] and twelve [zodiacal signs]. When they hit one [counter] against another and collect [the latter], it is just as people in the world smite one another. When, by the turn of the die, they collect all [the counters], it is an analogy to people, who will come alive again at the resurrection” (FIDOURSI as in MCKENZIE, C. & FINKEL, I. 2004: 89).

Even though some of the symbolic correlations pointed out by Wuzurg-Mihr seem a bit artificial or out of place, the intention to relate the board, the gaming implements and the rules to religion and traditional cosmogony is clear. The man-world-cosmos analogy appears again, relating human life to celestial cycles and the life and death of man to the change and movement of the cosmos. The hero is the one able to reconnect man with the cosmos, remembering the Truth in our daily lives. Here he does it through a game, creating it as an image of Heaven and setting analogical rules, which are to be remembered by the players and in doing so they ritually re-enact and recall the traditional knowledge.

We can find another good example of the civilizing hero related to games in the figure of Palamedes. This son of Nauplius is one of the tragic figures in the mythical history of board games. Although ignored by Homer, he appears in Apollodorus and Pausanias as the “sage that always has a bad end” (CLÚA,

J.A, 1985: 92). Tradition attributes Palamedes with great intelligence and inventiveness. He is the legendary inventor of some letters of the Greek alphabet, like the “Y”; invented when he saw some birds flying in formation. He also “invented” the numbers, weights and measures, coins, the calendar, military formation and how to play music. Palamedes is also related to games, and is said to have invented cubic dice (*κυβοί*), how to play with astragals, and the game Petteia (CARDONA, F. 2000: 33), which he invented to entertain the Greek soldiers during the siege of Troy. Clúa points out that Palamedes might be the personification of the change in the 5th century witnessed by Plato and other Greek sages. The passing from a mostly oral civilization to a written one, and the appearance of the sophists, would have caused both a cultural revolution and a shock (CLÚA, J.A, 1985: 86).

It is easy to see that the hero Palamedes overlaps with the Greek god Hermes (and with the Egyptian god Thoth) in many ways (FALKNER, E 1961: 15). In Plato’s *Phaedrus*, Socrates says that the god Thoth himself invented Petteia. In Socrates’ words: “I heard, then, that at Naucratis, in Egypt, was one of the ancient gods of that country, the one whose sacred bird is called the ibis, and the name of the god himself was *Thouth*. He invented numbers and arithmetic and geometry and astronomy, also board games (*πεττείας*) and dice (*κυβείας*), and, most important of all, letters” (PLATO, PHAEDRUS 274D). We have to remember that this god represents the collected priestly wisdom of Ancient Egypt (GUÉNON, R. 1984: 260). Here we see again how board games participate in the sacredness of the other ancient activities related to word play (such as theatre or music).

Palamedes also represents the legendary hero that brings culture to men but in return, by twists of fate, is punished by them. His wisdom is his gift and his curse. Ulysses, as a vengeance, punishes Palamedes for discovering that he was

feigning mad to avoid the Trojan War. His fate was tragic, when Ulysses forged evidence to charge him with treason and had him executed. Even Plato in his Apology cites Palamedes as one of those who were unjustly condemned (CARDONA, F. 2000: 33).

3.1.2 Ethics, rules and cheating

As we see, the hero sometimes appears as the bringer of culture and therefore the one who establishes rules or customs. As every myth is a precedent and an example, the hero's actions become the cultural and moral beacon to follow (ELIADE, M. 1997: 372). So then, if we have seen that heroes are sometimes related to games we can explore the regulating aspect of heroes in this field. To do so, we need to analyze the symbolic implications of the concept of gaming rules itself.

As we enter the field of game rules, we easily slip into the field of ethics. If, as we have seen, play is a fundamental human activity, it must also impinge on how we make choices and how we give value to things through our choices. The ethics of play offer an alternative to the dichotomies that have preoccupied modern man for so long and suggest a new direction for our thought which is neither relativistic, objective nor static. The ethical aspect of play shows that, far from being a peripheral activity, it is one of the most essential categories we constantly turn to without knowing it (HANS, J.S. 1981: XII-XIII).

Board games can be seen as analogical models of reality, as we have shown above. As ethics are an essential part of human anthropology, we can automatically see an analogical relationship between these two fields in game rules. Games, as we have seen, differ from other kinds of play activities because of their fixed rules. In that sense, games tend to substitute the anarchy

of human relationships with a new and simplified order. These substitutive order and rules reflect and simplify those of the world. In that sense, we can say that through game we change from an “animal” domain to a cultural domain, from instinctive to human (FARGAS, A. 1997: 21).

One of the elements that makes rules fall within human domain is the spoken (or written) word. Rules were told and explained orally from player to player and seldom written⁵⁵. Even when written, fixed rules exist, “house rules” are set orally before each game. The fact is that these words give shape to the reality of the board game. As we have seen, in traditional symbolism the spoken word is the giver of life and of reality (REVILLA, F. 2007: 119). At the same time that it can be used to separate and name places and people, it can be used to shape and change reality. With each new rule spoken and shared between players, reality changes and becomes that of the board game. When an aspiring initiate achieves a higher rank, a new name is given to him to represent the “death” of the old being and the “rebirth” of the new one (REVILLA, F. 2007: 121). In the same way, when the rules of the game are spoken, the “old” reality becomes suspended, temporally forgotten. Then, the “new” reality of the game comes to life, replacing the old one.

Game rules limit and allow the game at the same time. As we have seen above, even though rules are a limitation of possibilities, forcing players to do this and not that, this limitation is what makes a game what it is. In fact, as we have seen, we only can say that we are playing a game when we follow its rules: that is, if we change the rules we would be playing a different game. By definition,

⁵⁵ Nowadays it may seem that only rules to traditional board games are taught orally. In fact, even though commercially produced games have extensive written rules, players prefer to be taught by an experienced player rather than read and interpret the rules themselves. That sometimes provokes the distortion of the original rules, into “house rules”. In some cases, as in some documented Monopoly games, those “house rules” differ so much from the original ones they are unrecognizable.

a board game is its rules. Therefore, board games fit perfectly into the ethical-legal discussion.

When speaking about following the rules of a game correctly, we can see that playing properly requires a judge. Judges punish the faults committed by players, but do not cheer their victories. They have a dissuasive role, encouraging players to play “by the rules” or be punished. At the same time, they have to know the rules of the game by heart in order to clarify and resolve possible disputes. Therefore, the judge is the guardian of the rules and order. His function is somewhat different depending on the factors that are open to “cheating” in a given game. While in the pure strategical board games the judge is just watching the players following the rules, in games where there is some sort of randomness he is also trying to make it fair for all participants. As the guardian of law and order, the judge becomes a central element of the game, and he is conveniently situated in a place of honor, where he can clearly see the board. These “places of honor” are chosen following the key central spaces and determine the orientation of the board. LHÔTE, JM. 1976: 46-47).

In present-day competitions, the judge is always a third person, different from the players, observing the game from outside. However, games are a special kind of activity, where the opposition and collaboration of all participating players flows in a very organic way. The interesting thing is that when playing informally (that is, almost all the time), both players are constantly acting as judges of themselves and their opponents. First, they recognize themselves in a ludic attitude, as willing to play and as opponents in the game. Then both opponents agree on the set of rules they are to follow: they select which game they are going to play. They choose the playing space, pieces and implements by mutual agreement, setting up the limits of what will be “in game” and what “outside the game”. Once the game starts, they act as their own referees

because they are constantly remembering the rules of the game and playing according to them. Each player has to teach himself to play properly if he does not want to break the gaming atmosphere and be out of the game. If we assume that the player really wants to play, he has to stick to his word and abide “by the rules”, accepting them as his own. At the same time, he observes the movements of the opponent. Has he moved legally? Is he throwing the dice properly? Are his dice loaded? In a conscious or unconscious way, the correct development of the game depends on the judgment of all the intervening players. The interest to avoid cheating is both the desire to win and a desire to continue the game.

There is an obvious relationship between the traditions, ideology and institutions of a certain society and the games played by that collective. Or rather, the social rules underpinning each culture are linked with the games in that society (FARGAS, A. 1997: 22). For that reason, games have an important function: to socialize and give cohesion to human communities, in the widest sense of the word. Shared games create a feeling of belonging, cohesion and unity far beyond the game itself. What maintains this “belonging” through time and beyond the duration of the game is the feeling of sharing an exceptional situation, separated from the outside with different rules. So then, playing a game is to limit oneself and one's actions to a space ruled by a certain set of rules. Players willingly abide by these artificial rules, and play within them most of the time. In any case, as with rules in society, this obedience is not perfect: people can freely try to bend or avoid them. Trying to cheat in games and board games is as old as setting rules, and fits perfectly with the ethical discourse of this chapter. The same ideas that we could find in the “real” world about breaking rules and how this is punished can be found by analogy in board games.

As inclusion is the greatest reward in board games, expulsion is the greatest penalty. We have to remember that games are played mostly for their ludic appeal. The player cheats to reach the goal easily. Therefore, we can conclude that despite cheating, the player still wants to be in the game to be able to “win”. If the cheat is caught, the game usually is declared null and void. If turning back is possible, the cheating movement is declared non-existent. In any way, the cheat is always afraid of being banished, cast out of the game. Cheats have the power of breaking the “magic” of the game, thus avoiding any player from achieving victory.

As some extent of cheating is considered normal and even can form part of the game, the figure of the cheat can be related by analogically to that of the Trickster, the cheating spirit, hero or god. This common character of all the Indo-European branches of mythology appears as a civilizer and creator, an essential part of the cosmogony. In different traditions, it is a crow, spider or coyote, and it is their ability to play and cheat that allows them to achieve what they want. This advantage is also their doom because to trick him back men often use the same games (ELIADE, M. 1987: 476). As we see, myths about cheating between gods or between men and gods are very common in ancient traditions. It relates to gambling, because the trick or cheating happens when something extremely important (other than the game itself) is at stake. When gods and men know that their own holiness or humanity is at play, both do anything to win.

In any case, we can assume that the fact of playing has involved a certain degree of cheating since the beginning. Written references about cheating start to multiply in ancient Greece and Rome. The first documented cheating incident happened in the Olympic Games, in the year 388 B.C. The boxer Eupolus from Tessalia bribed three of his opponents so they fell to the floor

during combat. We also know that during the same period some people cheated in gambling with *αστράγαλοι*, sheep bone with four possible positions (OXFORD CLASSICAL DICTIONARY, 1970: 133). Greeks also used cubic dice, *κύβοι* and due to the prevalence of cheating, they invented systems to ensure proper throws. We have evidence that hints at the existence of loaded dice (lead weighted dice), called *μεμολυβδωέμνοι*. In many Greek and Roman dice games, the use of a shaker or cup was compulsory. Dice towers with irregular stairs inside were also common, because they assured a cheat-free throw (OXFORD CLASSICAL DICTIONARY, 1970: 338-339). One of the best-preserved pictorial representations of cheating is the one found in the wall of a tavern in Pompeii. Two different scenes portray this tale of cheating and fighting. In them we can see two young men playing Duodecim Scripta, with some words (in a very vulgar Latin) written over their heads. The first scene depicts one of the players shouting “*Exsi*” (I am out), and his opponent answering “*Non tria duas est*” (That’s not a three, is a two). In the second scene we see both men fighting while they shout “*Noxsi a me, tria eco fui*” (No, for me, it was a three!) being answered “*Orte fellator, eco fui*” (Look at me, sucker! It was!). Then the tavern owner pushes them out of the tavern with the words “*Itis forarixsatis*” (Go outside to fight) (TODD, F.A. 1939: 6 and CLARK, J.R. 2003: 167). Even though Fittà (FITTÀ, M. 1997: 118) describes the scene as if they were playing a dice game and not a board game, the expression “exit” (implying movement off a board) applied to the game makes us think about the former possibility.

Aristotle, in his *Nicomachean Ethics* describes the moral resemblance between foul governors who sack cities and other kinds of greedy people, such as professional players: “For those who make great gains but from wrong sources, and not the right gains, e.g. despots when they sack cities and spoil temples, we do not call mean but rather wicked, impious, and unjust. But the gamester and the footpad (and the highwayman) belong to the class of the

mean, since they have a sordid love of gain. For it is for gain that both of them ply their craft and endure the disgrace of it, and the one faces the greatest dangers for the sake of the booty, while the other makes gain from his friends, to whom he ought to be giving. Both, then, since they are willing to make gain from wrong sources, are sordid lovers of gain; therefore all such forms of taking are mean.” (ETH. NIC. IV – 2, 1122A).

Ammianus Marcellinus, a Roman historian who lived in the last part of the 4th Century A.D. describes how some *aleatores* (a special kind of gamblers) who may have played *Duodecim Scripta*, differed from other players because they had the ability to influence dice and throw whatever they wanted. They had a somewhat “dark” social prestige, mocked by Marcellinus in his 28th book: “Some of these veterans, though few in number, shrink from the name of gamblers (*aleatores*), and therefore desire to be called rather *tesserarii*, persons who differ from each other only insofar as thieves do from brigands.” (MARCELLINUS, A., BOOK XXVIII, 4. 21).

Nevertheless, the most harmful person for a game is not the cheat but the person who negates the game itself, not recognizing the rules as such. Even the cheat recognizes and to some extent follows the game’s rules, trying to accomplish the goal of the game in dubious ways. The cheat believes and shares the sacredness of the game, knows the rules by heart, but ignores them in trying to take advantage. However, the negator does not accept the idea of a different set of rules applied to reality, thus destroying the magic of the game. There is nothing worse than a person saying “this is nonsense” to two people playing because they know it is true, a game only exists as long as they allow it to exist. The *Spielverderber* (game spoiler), as Huizinga calls it, does not recognize the sacred space that playing needs, and by acting in an inappropriate way he breaks the division between game and reality (HUIZINGA, J. 1958: 24).

Game rules are accepted by convention, but they are transpositions of natural laws or connected to symbolic or unconscious elements. This does not prevent the rules from changing within established limits, shared by all players. These rules, set *in illo tempore*, seem to evolve following a law of increasing complexity (LHÔTE, JM. 1996: 447). When players achieve such degree of mastery with a specific set of rules, that a board game stops posing any challenge to them, they tend to adjust the rules to make it more complicated. One documented case is that of Shatranj Kamil (“Perfect Shatranj”, also called Tamerlan Chess), said to have been invented by Tamerlan (Timur Lenk 1336-1406) because the original game was too easy for him to play (MURRAY, HJR. 1913: 204-205). Alfonso X also included more complicated variants of Chess, which were played with many different pieces on bigger boards (ALF. 81R-82V). The most spectacular case is that of Taikyoku-Shogi (“ultimate Shogi”, played around 1550 in Japan), with 402 pieces per player, of 208 different types, with a grand total of 253 different kinds of movements (CHESSVARIANTS.ORG, information taken from the book *Sekai no Shogi* by Isao Umebayashi).

3.1.3 Opponent as complementary

The figure of two players sitting face to face with the board between them is the most common vision when thinking about board games and represents very precisely the underlying idea of symmetry and harmony that we will explain in this chapter. The opponent represents the definitive symmetry: the symmetry of challenge. Players do not need the game to be just any challenge, they need it to be a challenge that might not be accomplished: neither too tough, nor too weak. If the challenge is too easy, we always know that we are going to win: there is no point in playing because we know the result. On the other hand, if the challenge is too difficult we are sure that we cannot win, and if we never win, losing all the time keeps us from playing again. Therefore, we

are always searching for ways to adjust the games in order to find the optimal symmetrical challenge. In order to do this we have different strategies, of which we will discuss only two: hidden information and complexity.

It is easy to see that if we always know how the game is going to end, it is not fun. For play to be truly playful there must be something to make each game different, not trivial and not evident. This “replayability” keeps the challenge over time, without making the games too easy to be enjoyable. If all the games were the same, in the end we would reduce the game to just memory and theatre, voiding it of its original sense. Games cease to be games when there is no uncertainty.

By adding hidden information to a game (like chance elements or cards), we cannot flawlessly plan the winning moves from the start, which thereby increases the challenge. Another option to make games challenging is to make them complex. In adding more and more complex rules to a game, we alter the number of decisions that a player has to take. An untrained human mind is not able to manage all the incoming data, and in the end sometimes does not choose the best mathematical option, but the one that is good enough, as far as the player can think. Complexity hides the best move like a needle in a haystack. The final winning move is hidden behind a veil of possibilities. The answer does not come automatically, only after thinking which what the next move should be. The challenge here is to ascertain which the best option is in each and every moment of the game⁵⁶.

⁵⁶ Complexity does not have to be reflected just as complex rules. There are many games with simple rules but with a really high level of complexity in which the possibilities are overwhelming (Go or most of the Mancala games). In these games even though the player sees every piece in play, the possibilities of movement and change are so many that the movements are not a trivial issue. Other games, like the Taikyoku-Shogi (where each player has a set of 402 pieces of 208 different types, with a total of 253 different kinds of moves) have both very complex rules and thousands of millions of possibilities of play.

However, in adding hidden information or complexity we are only trying to emulate the challenge that a well-trained human opponent would offer. As humans, we prefer to play together than alone and share the joy of the game. Even if there are many solitaire games, the number of games requiring opponents is far greater because of the challenge and fun provided by the opponent. When we play alone we need to maintain the same challenge, so we need something in place of the figure of the opponent, a hidden gaming mechanism that acts as the will of a hidden adversary.



Liubo players, Han dynasty. Notice the symmetrical disposition of elements in the scene. BRITISH MUSEUM.

We find that without an opponent sometimes there is no game, so the first thing that we notice is that an opponent allows and limits the game at the same time. As Coppin and Marchand explain: *“S’il n’y a pas de partenaire, une partie [...] est non seulement inintéressante, mais elle ne porte même pas de signification”* (COPPIN, F. & MARCHAND, M. 2006: 77). Therefore, the opponent allows you to play (hopefully as a worthy challenger) but on the other hand, with every movement he limits your playing options. Sometimes you can ignore him, but if you want to play properly, the opponent influences and limits what your next movements are. The opponent becomes part of the game, leaving his mark and affecting every decision taken. As Coppin & Marchand point: *“Au Weiqi comme dans la vie, la pensée chinoise a donc tendance à considérer le groupe et l’Autre comme une condition de sa propre existence [...] si le joueur qui a les noirs ne pose pas sa première pierre, blanc n’a aucun intérêt à jouer”* (COPPIN, F. & MARCHAND, M. 2006: 77). While his very existence permits play, the opponent limits your game and of course, the way you enjoy it. Therefore, choosing an opponent is not a trivial issue, because it affects every aspect of the game, even your experience of it. If we believe that the true objective of the game is the game itself, then the choice of the opponent is a key element in playing games, which is often overlooked.

When we talked above about hidden information, we deliberately left the idea open enough to say that the opponent is in fact, almost pure hidden information himself. For a start, you cannot reach into his mind to know what his next movement will be. Even when the pieces are all visible, the strategy that he is going to use is unknown to us. Of course, this works in both directions, because your movements are unknown to your opponent. The worthy opponent becomes the best random implement ever, an intelligence directing the movements of the pieces, an ever-changing puzzle that reacts to our movements. In fact, the game Petteia was used in multiple occasions by

Plato as a favourite image to explain the process of dialectics (GRG. 461D1-3 & REP. 487B1-C3).

Everything works fine if we find an opponent at our level. An easy opponent or one who is too difficult could take most of the fun out of the game. In the first case, we would always win, and the game would become a trivial issue. If on the other hand, we had an opponent that is impossible to beat, we would soon lose interest in the game, because we know that we do not have any chance of winning. Only if we find a worthy opponent does the game become truly enjoyable.

The “problem” with human interaction is that it is not completely rational and cold, but is rather open to mood and subjectivity. We cannot forget that even though opponents are playing together they are, at the same time, playing against each other. They are the good side and the enemy for the other player. However, is our opponent really an enemy? The word enemy implies hostility, ill will, “a wish to harm”. Therefore, we have to admit that our opponent is not an enemy, because even if we do not want him to win (because we do want to win) we do not wish him any real harm. Philosophically speaking the opponent is not an enemy, but a complement participant. By opposing two players, in fact, we are opposing two complementary concepts, and from the relationship between them, we grant a final harmony. As Chevalier exemplifies, the opposition between players is like fields in the west and east, opposing clans in the same village, the dry/male and wet/female principles, the Yin and Yang, etc. all of which compose and create the world (CHEVALIER, J. & GHEERBRANT, A. 1999: 612).

The term “adversary” is almost coincident with the idea of opponent. Etymologically it means “he that goes against” or “turned toward one”, and it implies the idea of resistance, challenge, an impediment to us winning. If what defines us as a player of a game is that we are not acting for real, once in a game we need to identify ourselves as “player A” and not as “player B”, so we need to highlight it somehow. Opposition in board games is represented in many different ways that are symbolically meaningful, and related to the term “adversary”. First, there is a basic fact: opponents almost never share the same side of the board. The opponent is playing both with us (sharing the board) and against us (being on the other side of the board).

This idea is part of every board game: in some games, pieces are physically opposed symmetrically on the board; in most board games, each player has his own pieces but in those games where pieces are shared, players own a



Aquiles and Ajax playing in a Greek amphora, ca. 530 BC. VATICAN MUSEUM

territory. As pieces are the instruments of the player on the board, they wear the colours of that player. When we are speaking of two players, these belonging colours usually are black and white, or at least dark and light. The practical, evident reason is that doing so helps in identifying the player's pieces at a glance: these are the most distant colours in the spectrum, easily identifiable and unmistakable.

However, behind all these ideas there is a clear analogy with traditional cosmological symbols such as the Yin-Yang. This image is one of the key elements of oriental as well as Western traditional philosophy: the *coincidentia oppositorum*. Two ideas that seem to be opposed are in fact related to each other as complementary. As we have seen, in traditional cosmological symbolism, there is no sense of dualism, because the opposite of a truth can also be a truth⁵⁷ (COPPIN, F. & MARCHAND, M. 2006: 24). Black and white are not watertight and they are always revolving and permeating each other. Concepts such as creation and destruction, order and chaos, active and passive, male and female... cannot be understood alone because they happen simultaneously. In black there is always white, and vice-versa. Both colours are complementary, and are nothing without the other. They do not exist separately but as complementary.

⁵⁷ Real Truth is beyond lesser "truths" that can be said to be opposed to each other.



Black and white stones on a Go board. WIKIPEDIA

In games we can directly relate this idea to that of two players playing together and learning from each other. The opponent, the adversary, has to be understood as a reflection of oneself, as a symmetrical image, like a mirror. He is an *alter ego* following the same rules and playing with the same board. Your opponent also has an opponent in you, in the same way as a player has to acknowledge the player at the other side of the board. When we can do so, we give our opponent the same value as we give to ourselves. Both players know the other will do his best to win, so they both find their optimal challenge in each other. Competition becomes cooperation in challenge. The otherness of players dissolves into unity, and both poles (both player and opponent) become one in playing the game. Symmetry in game, harmony (understood as a good, fun, really challenging game) can only be achieved when this complementariness between opponents works. In Chinese philosophical thought, this is very clear: everything in a group must fit together harmoniously (man in society or stones in Weiqi). The individual human being is inconceivable as he cannot be seen as an isolated entity. The word *ren*, is both “man” and “human being”, but it is represented with different

characters. The first character (人) represents “man” as an object, in the same way as a table or a chair. The second character (仁) is composed by the radical “man” and the number “two”, but the meaning is deeper: “human being”, “charity” and “empathy” (COPPIN, F. & MARCHARD, M. 2006: 64). This means that according to Chinese thought, man only becomes a human being by his relationship with others. Bearing this in mind, the figure of the symmetrical opponent becomes even more valuable: it is the condition for game itself, for life itself (COPPIN, F. & MARCHARD, M. 2006: 87).

We would like to expand briefly on the fact that board games in antiquity were designed for either two or four players⁵⁸. In fact, almost all four-player games are based on paths. This is the case of Pachisi, Zohn-ahl and the family of Ashta-kashte. However, we also have to bring into consideration the Chaturanga, which is not. The rest of the games analyzed in this research were for two people to play. Moreover, in four-player games those opposed at the board are usually paired, forming two teams. In Pachisi as in Chaturanga, the players occupying the opposing diagonal positions are considered a team (red with green and yellow with black). In Nyout, two or four players can play, but the number of pieces remains constant. For two players, each one has to take four “horses” but when four people play, only two belong to each player because they are divided equally between the players. Therefore, we can see that in fact, the idea of two opposing forces trying to achieve harmony is compatible with the idea of four players in a game. The figure of the opponent is “divided” into two sub-teams that cooperate to beat the other team. Your partner can act as an opponent sometimes, but he wants you to win as much as himself. The duality of thought that being two represents is analogical to the fact of playing alone. The lone player can be seen as several “egos”, thinking

⁵⁸ It seems that in Mehen up to six players could participate (CAZAUX, J-L. 2003: 11-13).

and planning different strategies following an interior dialogue that sometimes decides to act in opposed ways.

3.1.4 Some remarks about the playing pieces

After reading what we have explained above, it would seem that somehow the player is projecting himself onto the game. However, is there some kind of identification? Does he really believe in the pieces as “many himself”? (metaphorically speaking, of course). That is, does the player see in the pieces his “alter ego”? Let us briefly discuss this matter.

The first idea that will shed some light on the matter is the nomenclature of the pieces. Astonishingly, according to the different historical sources consulted, the names given to playing pieces have not changed that much from ancient times. In fact, we can see that in Ancient board games, names given to gaming pieces fall into one of two categories: descriptive names and figurative names.

In the first category, we can catalogue all the purely descriptive names, which offer little symbolical information because they are, in fact, merely what they say they are. This would be the case of names like “seeds”, “feces”, “cowries”, “beans” (as in some Mancala games, WWW.WIKIMANQALA.ORG) or “stones” (Weiqi, Latrunculi...) also called *calculi*, *merelli*, *πεσσός* (MURRAY, HJR. 1951: 25). Here the identification of the player with his pieces is impossible, because they are inert objects, completely different from the player. The playing pieces are just, literally, counters. They can be added, subtracted, deleted, harvested, herded, but they are always treated as inert, passive elements.

In the second category, we find the names that we have called “figurative”. These names give special qualities or analogical features to playing pieces, not directly inherent to them. In this way, pebbles can be called “dogs” (as in Senet, Latrunculi), “soldiers” (in Chess, Shogi, Xianqi), “horses” (in Nyout, Pachisi), “animals” (Totolospí(II)), etc. In Mancala games, the symbolic meaning depends on the societal background of the game. In societies that are based on fishing, the seeds are called “fish” and in pastoral societies, the counters are considered “cattle”. In general, the symbolic meaning is often associated with fertility and prosperity, like seeds and grains (WWW.WIKIMANQALA.ORG).

In this case, playing pieces are symbolically assimilated to serfs, “inferior” or “domestic” beings (dogs, horses, cows, soldiers, slaves, etc.). In fact, nowadays in Spanish we usually refer to the playing pieces as *peones* (literally “pawns”), that is, paid workers. This is a very interesting idea to point out, because the idea of the hierarchy between the pieces and the player pervades. This implies that the player can “command” their pieces to go here or there, stand still or move, and only he is responsible for their actions. All of these names imply the same kind of hierarchy between the player and the pieces: control, dominion. As Groos explains: “[in board games] players appear as leaders of opposing forces and originators of strategic operations” (GROOS, K. 1901: 190). Through the gaming pieces, not the player’s ego but his will is projected onto the game. The unity of the will is divided into many as the pawns move across the board. The player is the “chief” that gives them orders, and without whom the pieces alone would not know how to act.

Pawns move in this abstract symbolic space as *alter egos* (note the plural) of the player (LHÔTE, JM, 1994: 94-95). Therefore, we can see that the player-pawn identification is not univocal, but dissolves into multiplicity. In all path games

(Ur, Fifty-eight Holes, Twenty Squares, Mehen, Senet, Backgammon, Pachisi, etc.) the player does not “own” or is identified with one single piece, but with many. The same happens with Go or Alquerque: the player is identified with a single color, but with multiple pieces. In Mancala games, the dissolution is even bigger: pieces belong to a player only if they are on his side. When a piece is taken out of the game, when it “dies”, it can be substituted with another of the same family (color, side...). Pieces “obey” the commands and decisions of their player, but they do not represent him. They are the means through which his decisions affect the board, as soldiers would be in a battle. It is no surprise that in seeing these similarities, the analogy between some board games and war becomes so clear it can be easily mistaken for a copy of reality or a direct representation. The point is that the player is not on the board physically nor in a figurative way. The player is not the king in Hnefatafl, but that piece is, as we explained in the last section, his link with the game⁵⁹.

3.1.4.1 Verticality and horizontality

As Champeaux and Sterckx explain, verticality is the essential characteristic of every traditional cosmological symbol referring to man. As the only animal that is able to walk with an upright stance, this peculiar trait is related to the other aspects of humanization: intelligence and culture. Therefore, the upright stance analogically symbolizes the connection between the earthly (material) realm and the heavenly (intellectual or spiritual) realm that man represents. The symbol of the king/emperor (*wang*) engraved on the main Shogi pieces summarizes this idea. As Guénon has pointed out, it is a representation of the far-eastern Great Triad, *Tien-Ti-Jen* (Heaven-Earth-Man), where Man appears as a son of both and a mediator between them (GUÉNON, R. 2003: 30-31). The

⁵⁹ It is interesting to note that the “main” pieces of board games, as we have seen, are situated in the central positions. It is through this center that the link between the microcosm of the game and the microcosm of the player exists. Only through this axis is the player allowed to tamper with the board.



Detail of an "Emperor" piece from a Shogi set. Notice the wang character in the upper part of the piece. WIKIPEDIA.

upper line represents providence and everything heavenly; the lower line represents fate and everything earthly. The vertical line represents the Emperor himself, the image of the perfect man, connecting (with his actions) providence and fate in the same way as the *axis mundi* connects Heaven and Earth. The central line represents his will, which allows him to navigate between these two powerful influences (CIRLOT, JE. 2004: 250-251).

In fact, everything that we have said about axis and verticality could be said of the human being (CHAMPEAUX, G. & STERCKX, S. 1972: 255). As we have seen, one of the pillars of ancient traditional cosmological symbolism is the correspondence and relationship between the microcosm and the macrocosm, the unity of all existence. The human being is seen as a living representation of each and every pattern in creation (PENNICK, N. 1992: 116). If we come back to board games, we see that the ultimate interaction between the players and the game happens through the playing pieces: vertical accidents in a completely horizontal world (the board). The correspondence between that fact and the upright stance of humans is not accidental. In the case of board games, the

vertical axis reminds us of transcendence and life, whereas the horizontal can represent passivity and ultimately, death (REVILLA, F. 2007: 61-62). The same happens in nature: vertical trees are alive, fallen trees are dead; walking animals and men are alive, but when they die, they just lie motionless on the ground. From this point of view, verticality implies life, as horizontality its end. Any power or soul that animated and “verticalized” that body is not there anymore. Corpses are as horizontal as are fallen trees.

Playing pieces are the only vertical elements of the board. That makes them also the only “live” elements, the only thing in the microcosm represented on the board that has the gift of movement. This same virtue is also a danger: as they “live”, they can “die”, be taken out of the game. Whether piling them in a common pool, capturing them or returning them to the beginning of the path there is always a penalty related to the idea of “dying”. However, maybe the more interesting analogy is that of Chess. When a playing piece “dies”, it is removed from the game. Nevertheless, when the king piece dies it is not taken from the board but flipped sideways, thus ending the game. It seems that the connection of the player with the pieces, the channel through which the other pieces received the “animating energy” of the player, is broken. When the key piece loses this link and “dies”, a part of the player also “dies” with it. It is this sharing of mobility that ceases to exist what makes the player lose the game.

3.2 Playing as a rite

As we explained in the last chapter, board games have interesting relationships with myth. In the same way, we can see that there is an analogical relationship between playing board games and the performing of rites. In the first place, because they belong to the same “play” category and share the same analogical

thinking so in a ritual, our world is transformed due to the channelled energies in play, as in a game (FARGAS, A. 1997: 13-14). As the rules and story behind each game can be said to be mythical (defined *in illo tempore*), the act of playing could be seen as a ritual because players re-enact the rules of the game: “*Le joueur, comme le lecteur, est en même temps ici et ailleurs. Mais, simultanément, le jeu s’inscrit dans le monde réel. Si bien que le jeu produit au cœur du monde réel un monde autre. Car, en dernière instance, c’est bien là ce qui fait la fascination du jeu, c’est sa capacité à produire un monde*” (DUFLO, C. 1997: 208). The analogy can be carried over to the similarities between board games and mandalas. The initiate penetrates progressively through the different interpretative layers of the *mandala* as if penetrating a temple. Reading, interpreting and meditating a mandala is equivalent to the ritual march around a temple (*pradakshina*) in which the pilgrim climbs from terrace to terrace towards the “pure lands” (ELIADE, M. 1999: 55-56). At the same signification level as the analogy between meditation of the *mandala* and rite at the temple works, we can see the same analogy with playing.

A rite is only kept alive by the re-telling and re-actualizing gestures of the community it belongs to. Rites assert that all statements within them are true, creating a world of “let us believe” rather than of “let us make believe” (ELIADE, M. 1987: 478). Their value is clarified by Olives: “*Lo mismo sucede con el rito, que tanto como el símbolo y el mito es una parte esencial de la religión. No es una ceremonia compulsiva y arbitraria, como una mera convención ceremonial, que puede llegar a ser fastidiosa. El rito es sintonía, repetición de gestos y ritmos primordiales, concordancia con el aliento cósmico que penetra todas las cosas; tiene valor como rectificación, corrección, curación*” (OLIVES, J. 2006: 56). So then, the rite goes beyond the pure telling, bringing to life the story told by the myth. For the duration of the rite, the participants become heroes and gods, able to perform the same feats that they did *in illo tempore*. They bring back the same good influences to the present.

As rite re-enacts myth through symbols, man symbolically re-enacts the patterns in the cosmos through playing board games. This is the widest and most interesting sense of ritual: integrate the individual in himself, in the collective, in an organized society, in a living Cosmos. All human actions, from the moment that they imply relationship, are rituals. These activities, even those thought “profane” (including games) de-individualize man, making him feel that he is not alone anymore, participating from the order of the cosmos. In ritual, the identity of the human being is revealed as it is shared by the community (ELIADE, M. 1993: 45). As Olives points out: “*Todo acto es en principio ritual y, por tanto, es susceptible de ser comprendido y vivenciado simbólicamente. Puede realizarse conscientemente, en concomitancia vibracional con su significación analógica, haciendo que atraiga la energía o influencia benéfica, curativa y ordenadora que el rito quiere propiciar*” (OLIVES, J. 2006: 57).

In this way, games reflect change in the same way as rites, passing from one state to another. These rites, challenges, aim to reestablish the primigenial cosmos (as order) in the chaos (ELIADE, M. 1987: 471) thus ordering man and his surroundings. So then, let us examine some of the anthropological ideas analogically related to rite and play more often found in board games.

3.2.1 Līlā, life as play

In Indian cosmology, play is a top down idea. The qualities of play resonate and resound throughout the whole of the Cosmos. Nevertheless, more than this, qualities of play are integral to the very operation of the Cosmos (SUTTON-SMITH, B. 2001: 55). Therefore, the vision of the world as a game is one of the pillars of Hinduism. In essence, this means that the existence of the world does not follow any cause or has any reason to be, any objective nor any desire

because all of the creation is a purely self contained action, done just for the sake of it, ludic. The divine play, in Sanskrit *līlā*, is what makes this so and teaches us that human life does not have any sense or higher goal than life itself (BIARDEAU, M. 1981: 47). God (Brahma) does not need creation; He is self-sufficient, so finding a rational reason for Brahma to create the world is senseless, because finding reasons for the Absolute and Perfect to change is nonsense. Human actions are guided by a motive, because behind them there is a need, a desire that fuels that motivation. As Brahma does not have any desire, as we know it, he does not have any motive to create. In fact, the “create” concept itself is in this field devoid of significance⁶⁰. Brahma is and can do everything, so He does not need anything else (ELIADE, M. 1987: 551). The creation of the world is a pure free ludic act for His recreation. As Biardeau explains : “*Il n’y a rien que j’aie l’obligation de faire dans les trois mondes, rien que je n’aie encore obtenu et que je doive obtenir, et cependant je passe ma vie à agir*” (BIARDEAU, M. 1981: 156).

Everything in Creation has a ludic nature, even Creation itself. In the *Mahābhārata* the world is conceived as a game of dice between Shiva and his queen Parvati (ELIADE, M. 1987: 476). It is like a big theatre play, performed not for the sake of this or that actor, but for the play itself: it has to be perfect. However, the fact is that everything is merely Brahma interacting with Brahma. As Grof explains: “*Otras dimensiones importantes del proceso creador que frecuentemente se ponen de relieve son el carácter lúdico, el propio deleite y el humor cósmico del Creador.[...] La creación es una obra cósmica intrincada e infinitamente compleja que Dios, Brahma, crea a partir de sí mismo y dentro de sí. Él es el autor, productor, director y también todos los actores que hacen la obra*” (GROF, S. 2001: 61-62). In fact, it seems that Shiva usually acts in a very playful or ludic way (BIARDEAU, M. 1981: 157).

⁶⁰ *Creation always starts from a need that must be covered. Maybe it would be more correct to talk about “manifest” instead of “create”. A change within Brahma Himself is not an act of “creation”, just a different way to see Him.*

When Parvati covers Shiva's eyes while lovingly playing, all the cosmos plunges into darkness. Then Shiva creates his third eye, and normality is restored. The dice play of this divine couple represents the continuity of the universe and their absorption with and within it. This "deep play" is one expression of the theological concept of *līlā*, the divine play (ELIADE, M. 1987: 473).

On the other hand, in those cosmologies where premises of play are not embedded at a high level and are not integral to the organization of the cosmos (like the Western ones) play seems to come "from the bottom". So play in the Western culture is seen as not serious, childish, ephemeral but also as subversive and resistant to the normal order of things (SUTTON-SMITH, B. 2001: 55). But even though it seems that both views of play are so far away from one another if we think about the world in terms of *līlā*, it is not difficult to see in the term the same properties that Huizinga and Caillois used in their works for defining games (HUIZINGA, J. 1972: 26-27 and CAILLOIS, R. 1958B: 51-74).

First, the Creation is limited in time, perishable, transitory as opposed to the "no-time" or eternal instant⁶¹ that Brahma is. As a game is also limited in time and does not occupy all the time in our daily lives, so is time within eternity. We cannot conceive of eternity so we tend to think about it as the longest period of time imaginable. That takes us to the other limitation of games: space. As we have seen, games are also limited in space. Not every space in the world is suitable for being used as a playground. Also for playing board games, the playing space must be limited to the board and in very specific positions (as the definition of board game implies). When playing, there is nothing

⁶¹ Eternity has to be understood not as an infinite sequence of moments but as a perennial instant. The perception of eternity could be described as the simultaneous occurrence of every instant, seen from "outside" time.

important for the players outside the limits of the game; in fact, any movement outside the board is illegal, unthinkable in terms of the game. In the same way, the world is finite: it has a discrete number of square meters. Our nearest environment, Earth itself, is round, and we cannot move outside its boundaries. We are constricted to this world in the same way that playing pieces are to a board. That is opposed to the infinity that Brahma represents, which includes everything. As limited as we are, we can only think of infinity as a vast portion of space, but in fact we should think about it as a point. This is the central point that would later develop into space, as we have seen in the previous chapter.

Every game (and the world where we live in) is subjected to concrete and complex rules, from which the player cannot escape unless he quits the game (dies or transcends). Moreover, Brahma decided to “play the world” in an act of pure free will, and so the goal of Creation is Creation itself. This idea is connected with the idea of “pure” game explained by Huizinga (HUIZINGA, J. 1972: 26). Whereas a worker works for his own profit and benefit, the player is exuberant in his activity. The former does his activity because of need, the latter, because of what he is (COOMARASWAMY, AK. 1977: 150). The best way of living, therefore is to play the game of the world: that is, live for real but without seriousness. When we call God’s act a game it is because He has no need for a goal beyond the act itself. In the same way, humans must “play” their lives giving everything they can to make it the best. On this point, work (as daily life) and game are coincident (COOMARASWAMY, A. 1977: 158). While playing, man creates myths, scientific theories, art, knowledge, etc. He becomes a continuation of the primordial divine game, with the whole world as his playground to develop. The idea of “playing to be in the world” is ever-present in some Hindu festivities when social differences, hierarchy and age are forgotten for the participants, because in fact they are an illusion too. In

participating in the ludic spirit of the world (playing and partying together), these participants rediscover themselves and gather as a single community of believers. The whole community participates in the divine game (ELIADE, M. 1987: 365).

The philosophical concept of *līlā* implies forces in constant movement at a universal level. These forces create and destroy the possibility of a phenomenological world in an endless process. *Līlā* is the metaphor of flux, cycle and movement from where the cosmos appears and disappears (ELIADE, M. 1987: 364). As we have pointed out above, this world can be seen as an illusion, which is simply created and destroyed periodically. The same happens to man in this world, who dies and (if he still needs purification) is reincarnated following the wheel of *Samsara*. The idea of flux and change is related to that of *maya* (the phenomenological world as an illusion). Even though we can perceive the world through our eyes (at a physical level) and we can also think about it and try to understand it by formulating laws and creating science, all these perceptions are equivocal. This does not mean that one's vital experience and one's environment do not exist, but in Divine Time, they are completely relative because "tomorrow" they will not exist. The same problem comes when trying to differentiate "here" from "there" or "white" from "black", because in the end all these relative concepts are part of the Oneness of God. If we want to understand the world as a game, we have to see it through *maya*, and we can only do this if we use our transcendental sight, that is, the intuitive and spiritual part of the human being. Only by taking the role of a playful mystic and resorting to our inner wisdom can we find the truth behind illusion and live life meaningfully (WILBER, K. 1997: 13-19). Only in playing life, can we understand it.

3.2.2 Spiritual ascension: the ultimate goal

As mentioned above, the universe of board games is essentially horizontal (LHÔTE, JM. 1976: 71). Actually, in traditional cosmological symbolism the horizontal dimension of space is considered to represent surface, limitation, passivity, quantity and matter. Opposed to that, the vertical dimension of space represents height, but also quality, infinity, salvation and spirituality (REVILLA, F. 2007: 61-62). It is easy to see that a limited, square surface such as a board game is automatically related to horizontality for practical reasons. Even though it is possible to imagine ways of doing so, playing a board game can not happen outside the horizontal plane. However, we have seen above that the cross represents expansion in a horizontal (material) dimension, limited by



The medieval philosopher Ramon Llull explained reality as superimposed levels of existence, which he represented as steps on a ladder. In this image we can see how Homo is below Caelum and Angeli. (ELECTORIUM PARVUM SEU BREVICULUM)

the square. Its center is the vertical axis, which connects the different levels of reality.

All religious traditions deal with spiritual evolution. This evolution is usually represented as a series of steps or stages that have to be achieved, one at a time. So then, spiritual improvement is symbolically represented as a path or stairs to be followed up a hill or a ladder that has to be climbed up to Heaven. Many myths talk about a tree, a vine, a rope, a spider thread or a ladder that connects Heaven to Earth. The same idea appears in rites where the priest or the initiate has to climb a tree barehanded (ELIADE, M. 1999: 51). Coherently relating this ladder to the *axis mundi* (explained above when talking about the centre), we see that moving between levels of reality is only possible at this precise spot. The symbolic relationship is easy to establish when we think about what the function of a ladder is: to make accessible what is out of reach (REVILLA, F. 2007: 136-137). In fact, we can see that death itself is the greatest “change of level” that a human being can conceive of. The soul of the deceased climbs to Heaven with the help of a ladder or a rope. Initiation is, in a certain way, death in one life and rebirth in a new one. That is the reason why we can relate this ritual climbing analogically with initiation rituals. As Revilla points out: “[...] *pretendiera llegar –fuese físicamente o más bien por modo emocional- hasta la altura donde moran los seres superiores*” (REVILLA, F. 2007: 87).

As we have seen, labyrinths and, of course, board games, especially those based on paths, can be analogically seen as a way of spiritual improvement. Now we will not delve into their centrality or their configuration as sequential paths but in their resemblances with the initiation ascents. They follow the same idea of a difficult path to purification which, once difficulties are overcome, leads us to the ultimate beatific place. It does not matter whether we call it Heaven, Paradise or Nirvana (FABREGAS, X. 1987: 106).

The clearest example is the Indian game Moksha-patamu, which is both a path game and a form of moral instruction to teach children the idea that good deeds are rewarded and evil deeds punished. The goal of the whole route is Nirvana, this being the end of the path (FINKEL, I. in MACKENZIE, C. & FINKEL, I. 2004: 59). In this game, the lower squares are concerned with vices or hellish states, and the upper ones with spirituality and heavenly states. The ladders (or sometimes red snakes) take the player up and the snakes (or sometimes black snakes) bring the player down. As an example from an actual board, we can climb from “Mercy (17)” to “Abode of Brahma (69)” advancing fifty-two squares in just one movement. In the same way if one lands on “Egoism (55)” one is cast down fifty-three positions to *maya* “Illusion (2)”. The meaning of these movements is that a person of good deeds ascends the ladder and reaches a higher position, nearer to the “lotus feet of the God”. If that person fails and commits sin (represented by the snake), he is punished, thus moving him away from Nirvana. Man is the architect of his own fate says the Hindu law of *Karma*, and the sinner can become a virtuous person through good actions (BALAMBAL, V. 2005: 85). In China and Japan similar games exist, but even though the rules and shape of the game are very similar, the goal is not spiritual but financial and professional success. Material success in China was achieved through bureaucratic promotion, and that is the “theme” of this kind of game (LO, A. in MACKENZIE, C. & FINKEL, I. 2004: 65-72), ranging from religion and travel to local customs and theater. These games were mostly spiral in shape, starting from the outside and proceeding to the central point.

In a spiritual text from India called the *Sar Bachan*, the four groups of different-colored markers from Pachisi are said to represent the four stages of life through which all souls must pass: vegetation, insect, bird/fish, and mammal. After each form of life is experienced, the soul then progresses through all

forms of human experience. The dice of cause and effect determines its luck in each experience. In the game of Pachisi, each color group has its own path to heaven that passes through its home. Similarly, in the game of life, each soul reaches the gates of heaven by traveling every imaginable path of religious endeavor. Upon death, the soul exits the game through that particular path's version of heaven only to find itself back on the board following rebirth. Finally, after the soul has had millions of chances on the dice board, it meets a *Sat Guru* or True Master, who escorts the soul off the board, once and for all, and into the imperishable region known as *Sach Khand*. Here the soul has become one with God and is, finally, the "god" of its own universe where cause and effect are no longer an issue (GABRIEL, K. 1998).

As we have discussed above, when talking about the heroic challenge, the player as hero has to face the difficulties of the game. The exhausting path that the pieces move along takes its toll again and again, sending pieces back (that is, downwards). The absolute is not reached easily, so the ascension is a very demanding adventure for the hero (the player) (REVILLA, F. 2007: 110). At the same time, with each death the player earns something: experience. Therefore, when the game is finished, the player is not the same anymore: he has changed for the better. Whether victorious or defeated, the gaming experience changes players as the ascension changes the initiate. They gain knowledge about the game, but mostly about themselves (and their opponents).

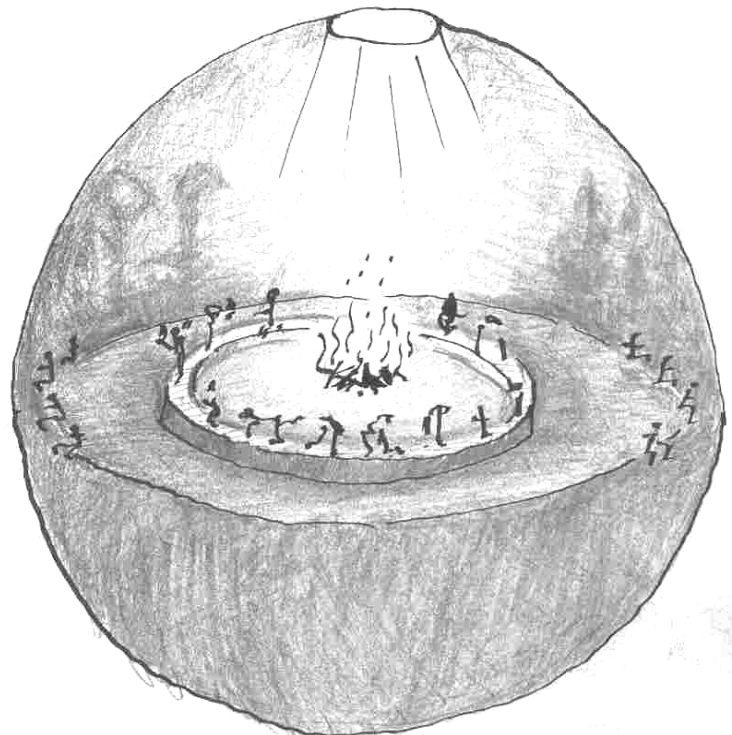
We see that the idea of goal, which is the objective of the game, can be intuitively related to that of happiness. Both players intend to achieve the goal before their opponent does. Even if there is nothing except the game itself at stake, they play to win. This is the part of the playful spirit: winning a game is always related to states of happiness. In general, we are happier if we win than if we lose. However, the happiness obtained from winning a game is always

short-term, a mere shadow of what ultimate happiness is. We have to understand that, at a religious and philosophical level, the “goal” of life is also happiness. This idea can be found in every religion at the heart of every culture. Life is to be lived with long-term happiness in mind. Only in this way, does life make sense.

This is analogically related to the idea of illumination, understood as the finding of long-term happiness. This “illumination” is related to some kind of transcendental achievement that helps understanding. Knowledge about Cosmos and the sense of life (truth, in short) is symbolically represented as light. That is why the term illumination applies to happiness. As light is related to spirit, to receive or see this light is to gain consciousness of the center or source of this light and therefore, to have spiritual strength (CIRLOT, J-E. 2003: 293).

In general, we can see that the goal of board games is either to exit all pieces or to achieve a special (harmonious) position on the board. We see that the final position of the game in either case relates to the concept of harmony. Therefore, this harmony is granted by “exiting” the pieces or by creating a favorable and harmonious *status quo* that grants victory (i.e. there are pieces of only one color still in the game). The game starts with an unstable situation, which cannot last. Achieving the goal consists in transforming this unstable situation into one of harmony, peace, end of struggle. Analogically speaking, this same idea can be related to human existence as a whole.

In those board games where the goal is to leave the board, the analogy between the goal and life can be understood through the aforementioned analogy of ascension. In fact, we can see the whole ascension from a wider point of view, covering the whole of human life. As in the ascension analogy, reaching the “top” is the goal. Therefore, seen from this perspective, winning is achieving illumination. As we enter the field of eschatology, the path of illumination is sometimes related to that of death. Only through death and ulterior transcendence can one achieve this state of higher existence. It somehow refers to life as a prison, a cave, an illusion, from which one has to escape. This escape can only happen through a hole, an aperture, an exit from the cosmic matrix. So then, in fact we have to “come out” from existence to ultimately understand the Cosmos as a whole. The Platonic Cavern



Olives' three-dimensional interpretation of the Platonic Cavern (OLIVES, J. 2006: 412-413).

exemplifies this idea in ancient Greek mythology. Some people live trapped in a cavern, seeing only shadows of reality. When someone is able to liberate himself and look back to the fire, he can see part of the truth. However, only through coming out of the cave and seeing the Sun can this wise man understand the magnitude of his slavery (REP. VII 514A-520). Olives interpreted this traditional image in a three-dimensional way, reinforcing even more its symbology. The aspirant to illumination walks through the horizontal plane, trying to orientate his intellect. Once he finds the connection with his higher self, represented by the central fire, he can ascend to the higher levels of consciousness, passing through the cupola. He does so through a hole in the cavern ceiling, representing the exit door from the cosmic matrix (OLIVES, J. 2006: 412-413). In the same way, in games such as Pachisi, Ashta-kashte and, as we have seen, Twenty Squares and Fifty-eight Holes the exit is through the center. All these analogies further reinforce the idea of liberation after a difficult struggle.

We have a clear example in the game of Mehen, directly related to the funerary environment. Victory in the game seems to have become symbolic of the attainment of life after death. Peter Piccione has demonstrated that in the First Intermediate Period the god Mehen became the focus of a body of secret knowledge occasionally referred to as the “Mysteries of Mehen”. Those privy to them were thought to be able to vanquish the enemies of Ra, to attain victory over their own enemies and ultimately to achieve safe passage through the Underworld and return with Ra to their own resurrection and rebirth. The spells speak of “the Roads of Mehen”, talking about the serpent’s coils as a road that leads to the sun god who is seated in the center (PICCIONE, P. 1990: 43-52). These roads are said to be “roads of fire... millions of years in length” and are guarded by doors that make those that do not know how to open

them turn back (i.e. those not initiated in the Mysteries of Mehen) (KENDALL, T. in FINKEL, I. 2007: 42).

Senet was also related to the funerary environment. The name of the game, *snt*, was translated as “going out”. This name would be used both because its goal mechanics and the fact that it represented the passing of the soul of the dead from this life to another. It is no surprise that Senet is one of the most common games found in tombs (along with Mehen). Even though the detailed rules are lost, we know it was a path game. The idea of “passing” was related to the Book of the Dead, specifically to the 17th spell. The ultimate goal of Senet is to bet the “invisible opponent”, which prevents the player from reaching the other world. According to Cazaux, this invisible opponent is the god Mehen Himself, which is preventing unworthy souls sitting next to Ra in his ship sailing through the underworld (CAZAUX, J-L 2003: 14-18). At the same time, the game was a conduit from this world to the underworld (and vice-versa), letting both the living and the dead to play together. The spell in the Coffin Text 405 says of the deceased: “Let him sing, let him dance, and let him receive ornaments. Let him play Senet with those who are on earth.” (PICCIONE, P. in FINKEL, I. 2007: 59). Therefore, Senet could be seen as the “hole” through which one can exit reality, and come back.

The legend of the invention of Nard also speaks of this game in a metaphysical register, as we have seen. The pieces are said to “revolve and move according to the seven [planets] and twelve [zodiacal signs]. When they hit one [counter] [...] it is just as people in the world smite one another. When, by the turn of the die, they collect all [the counters], it is an analogy to people, who all pass out of the world” (SOAR, M. IN FINKEL, I. 2004: 221). The analogy between exiting the board and passing from this world to the other pervades.

In the same line of thought would be Moshka-patamu, as we have discussed above. Reaching the top is in fact reaching Nirvana, the dissolution within God. This game is also called *Paramapadam*, which can be translated as “Reaching the lotus feet of the God”, referring to the lotus depicted at the feet of all representations of Shiva (BALAMBAL, V. 2005: 82). Here again we see how the goal of the board game is related to the ultimate goal of existence: reintegration with the One. The analogy extends back and forth from this point. That is, if we see the analogy between the goals of board games based on paths and the “goal” of life, this same analogy reinforces that of the path as being analogous to life (as explained above). As Gabriel explains: “Just as the object of the Hindu dice game of Pachisi is to enter the gates of heaven, the object of the Navajo stick-dice game is to return to the underworld through the place of emergence” (GABRIEL, K. 1996: 14).

We have commented above that in those games not based on paths (in fact, the rest of the existing games), the goal is to achieve a certain position or winning condition on the board. We have called this a stable position or equilibrium, in short, harmony. As an example, taking all the enemy pieces out of the game creates a stable situation. Without contest, there is no struggle. When a Go game ends, the board cannot change any more. All the spaces have been contested, won or lost, but they are defined. When Mancala games end, no piece may be moved. Either they are all captured or in a position which does not allow further play: stability, certainty. The organic harmony that a finished board game represents, connects with the idea of the end of struggle and conflict. As explained at the beginning of this research project, board games need to have a degree of uncertainty. At the end of the game, this uncertainty is resolved and the microcosm that the game represents achieves a final position. However, as in the macrocosm, this stability only lasts until a

new game starts. There is no “final” state of a board game, only a series of moves.

In Hnefatafl both kinds of goal are possible. In the first place, the white King has to leave the board, this time not through its center but by reaching its borders, its limits. We can see here one more twist of the symbolism attached to Hnefatafl. The King is in a very desperate situation: he is abandoning the center, the place where he should be, and exiting the board through the “castles” in the corners. In doing so, he in fact finds another center, saving his life in the process. When the black player wins, the King is captured, thus finishing the struggle. We can think that the winning black player is in fact the next white player. Black pieces occupy the central castle, bring their own king and then become white, only to be assaulted again by other black pieces.

In one way or another, the whole game is directed towards its goal because, as we have seen, it must be limited in time and space. After a successful game, we can see how the goal of the game shifts from the gaming rules back to real life. The situation created in the game suddenly affects real life, because it generates one or more “winners” and one or more “losers”. The rules of the game only affect how players interact with each other and with the board and game pieces. When these rules cease to apply, at the end of the game, the fact of achieving the goal has no effect on the game itself but outside. The interaction of the players after a game is affected by their past actions in the playful environment. This is a very interesting idea, which leads us to talk about the use of board games as oracles.

3.2.3 Randomness: fate, fortune telling and oracles

It is not a coincidence that a great number of the ancient games that we know about have a generous amount of randomness in them. In Antiquity, the most usual kind of board games are those based on paths. All these games share a special trait that makes them what they are: dice or some sort of randomizing implement. When we talk about dice we do not have to think only about the six-sided cubic gaming implement that we are used to, but to any randomizer that produces more or less equiprobable results. These randomizers can be found in almost every historical or prehistoric culture, as Heijdt asserts: “[...] very early prehistoric communities were in the habit of using these little magical objects for necromancy and fortune telling. These kinds of use can be found in (pre)history with populations spread all over the globe, with the Germans as well as the North American Indians, Mayas, Aztecs, Eskimos, Africans and Asiatic peoples” (HEIJDT, L. 2003: 18).

It seems that the first randomizers used in board games were two-sided. Coins did not exist, so people played with any more or less flat object that had a clearly distinctive front and back⁶². A large number of these objects were thrown together, and counted in different ways. We know that in the year 2000 B.C. the Chinese played Liubo with similar sticks (HEIJDT, L 2003:19) and the Egyptians used them to play Senet and Twenty Squares (CAZAUX, J-L 2003: 14-18, 27-29). Indians still use *kauri* shells or a four-sided long die to play Pachisi (CAZAUX, J-L 2003: 47-52). This at once introduces the well-known problem of calculating the odds of various numerical scores when there is the possibility that the dice can fall in different ways, which add up to the same score. Nevertheless, as this may seem a trivial matter for present-day students,

⁶² Randomizers come as sticks with a flat and a concave part, *kauri* shells, filled half-nuts, bark squares, little flat boomerangs, flat sticks with different markings on each side, etc. We can find many very interesting examples in HEIJDT, J. 2003: 16

we have to remember that the correct way of calculating the odds on throws was not fully theorized until the seventeenth century, although it had been a topic of speculation for some time (TAIT, W.J. in FINKEL, I. 2007: 50).

Another of the more widespread and most used randomizers around the world is knucklebones⁶³. In many prehistoric civilizations and even nowadays, woman and children used to play all kinds of games of skill with the so-called *astragals*. These implements have four faces, which allow a wider range of random results than only two faces. Of course, they were given different values and were used for gambling (HEIJDT, L 2003: 18). Astragals were also used in board games, as in the Fifty-eight Holes game, where faces had the values of 0-0-2-3 (CAZAUX, J-L 2003: 20-21). Indians did not use knucklebones, but rather elongated dice, which act as four sided dice.⁶⁴

As we have seen, the challenge a game presents is a very important element in it. A way to alter this challenge is to introduce an element of randomness into it. If some of the gaming elements are unknown to the player, he cannot flawlessly plan ahead all the movements that would bring him to victory. He has to react, to choose, to decide and sometimes to risk, because there is something in the game that makes him face the unknown constantly. This hidden information comes in many shapes, but one of the most popular possibilities is to directly use some random generating device that makes games non-predictable. As an example, we can think about all those games that use cards or tiles (and anything that can be randomly mixed). In not knowing which pieces or cards will be played with or what the next draw is,

⁶³ Knucklebones or astragals are a special bone situated in the ankles of the ruminant animals. They have been removed, boiled and used as playing implements since the dawn of man. In Roman times, they were called *astragalus*, or simply *talus*.

⁶⁴ Other four-sided dice exist, but they are based in a completely different source of randomness. The pyramids used to play the game of Ur had two out of four painted vertexes. A number of these pyramids were thrown and then the painted vertexes counted.

the challenge increases. Another possibility is the use of dice, teetotums, kauris, etc., which have different faces or positions. If we base some mechanisms of the game on randomness, we can be sure that is very difficult for two games to be identical or even predictable. Moreover, the players no longer have complete control over the game. In this way, they connect with the ineffable source of fairness that is randomness.

One of the major beliefs of the scientific community about the origin of board games is that their first manifestations were divination systems used by primitive civilizations. These divination systems were individual, but at some point, they started to be used as a sort of “fate tests”, needing two or more people. The next step would have been the loss of their original sacred meaning and their popularization, becoming a sort of superstitious attachment to games themselves. Once popularized, the symbolic and oracular meaning of board games was abandoned but left dormant, embedded in their shapes and rules. As Culin explains: “Upon comparing the games of civilized people with those of primitive society many points of resemblance are seen to exist, with the principal difference that games occur as amusements or pastimes among civilized men, while among savage and barbarous people they are largely sacred and divinatory” (CULIN, S. 1991: xvii). If in their origins this early form of oracular games was a matter for the shamans, priests and wise people it is easy to see that without their knowledge it would soon decay. They were the only ones capable of interpretation and were attuned to the appropriate level of reality where these interpretative symbolic keys work. That is why when board games become more popular the divination ritual performed with them loses its original meaning. Maybe that is why there are so many taboos about games: in order to prevent their trivialization and abuse as oracles (PENNICK, N. 1992: 230). We want to note here that even though it could seem from these assertions that divination games were not proper games (in the ludic sense of

the word), that would be a careless statement. In fact, these games are part of the cult for their ludic aspect (HUIZINGA, J. 1958: 76). Players played to know their fate, so winning and losing through randomness became a way to playfully communicate with God.

If we extrapolate this idea to a wider scope, we can see that in fact, not only isolated random implements but also board games could be used to channel the will of the gods. Therefore, the idea of good and bad throws in games (which make you win or lose) is directly related to divination. The fact of winning or losing a game was seen as directly related to “winning” and “losing” in real life (LHÔTE, JM. 1976: 131). The ritual function of throwing lots and dice and in board games is clear. A good throw or a good game is symbolically equivalent to a fortunate life, following the will of the Gods. As an example, Pausanias in his *Ελλάδος Περιήγησις* describes an oracle within a cave, near Bura in Achaia. In the cave, presided over by Hercules’ statue there was an oracle telling the future through a tablet and knucklebones called *Herakles Buraicos*: “On descending from *Bura* towards the sea you come to a river called *Buraicos*, and to a small Herakles in a cave. He too is called *Buraicos*, and here one can divine by means of a tablet and dice. He who inquires of the god offers up a prayer in front of the image, and after the prayer he takes four dice, a plentiful supply of which are near Herakles, and throws them upon the table. For every figure made by the dice there is an explanation expressly written on the tablet” (PAUSANIAS, VII 25.10).

This ritual was meant, through play, to lead us directly to knowledge of the will of God. Nowadays it is very difficult for us to think that God or any kind of divine intervention has anything to do with games, but for ancient people God was present through causality, that is, through randomness. In the ancient, analogical mentality, everything in the cosmos is connected. That

means that nothing is accidental or random: everything that happens has its own meaning and reason to be in God's "plan". Therefore, in classical-traditional thought randomness does not exist as such, because randomness is not considered as such but rather as destiny, or God's will. In fact, the Spanish word for randomness is "azar". Etymologically it is a deformation of the Arabic word *al-aẓahar* ("white flower", as referred to the orange tree flower). In the time of the hispano-arabic civilization, dice were called *aẓahar*, because the highest scoring face was marked with this flower, symbolizing fecundity and of course, wealth (LHÔTE, JM 1994: 25). Probability mathematics, like our system of numerals, came to us via the Arabs (HACKING, I. 1999: 6) from a much older Hindu tradition. In any case, the true start of probability as a science in the Western world is around 1660, when Huygens wrote the first probability textbook (HACKING, I. 1999: 11). Before that, few references to good combinational or probabilistic calculus are known to be reliable. A few examples of these are Raimundus Lullius, who in his *Ars Combinatoria*, used combinational elements to define God, and Galileo Galilei who, by observation, found that there are combinations of three dice that occur often (HACKING, I. 1999: 51-53).

This does not mean that any notions about probability were known⁶⁵ before that time, only that they were not thought to be a science to discuss (HACKING, I. 1999: 1-10). Aristotle himself said "probable is that which happens often" (in his *Rethoric*, 1402a 5-30). In ancient Chinese texts on philosophy, medicine and architecture a science based on meaningful coincidences was mentioned. They did not ask "what caused what" but "what likes to happen with what", and

⁶⁵ In the *Mahabharata* there are some good examples. In one of them Nala loses her kingdom by gambling, after being possessed by Kali. On a journey she meets Rtuparna, who is able to avert the number of leaves in a tree by only looking a single twig. He says that he can do that because he possesses the science of the dice and the numbers, that he teaches to Nala in order to recover her kingdom.

this “liking” was what caused shells to fall in one way or another (JUNG, C. 1997: 211). For the Chinese, there was no problem in admitting that nature was chaotic and had “strange attractors” which facilitated certain things happening. Randomness was not something accidental but the synchronization of a situation with a favorable context (COPPIN, F. & MARCHAND, M. 2006: 141).

Therefore, in antiquity, board games with implements such as dice, astragals or teetotums were not considered “randomness” games but oracles of the gods. Destiny was the force that conditioned human lives, and the central theme of many Greek tragedies. Greeks and Romans personalized luck as a goddess *Tyche* that gave and took luck, either favouring her adorers or acting mysterious and blind, as Justice does. This daughter of Zeus (called *Fortuna* by the



Mediaeval representation of the Goddess Fortuna (behind the wheel). Mankind is under Her rule, and by it the poor can become king and vice versa.

Romans), gave and took whatever she wanted from mortals (MORIN, C. 1991: 12). Players used to pray for the protection of the goddess before playing, because they knew that the result was in her hands. Games were seen as divine gifts and instruments, and in playing them, one was asking the divinity to manifest. In order to be fully understood, this result had to be interpreted by priests or experts in divination (FARGAS, A. 1997: 18). In China, ancient games and divination seem to have been associated with agriculture. The Shang (16th-11th centuries BC) used cracks in animal bones and turtle shells to cyclically predict harvests and weather (WATANABE, Y. 1977: 64-65).

During medieval times, the idea of the cyclical movement of fortune was still in use. They saw this idea through the image of the “wheel of fortune”, in which one can see the rise and fall of man through randomness. One of the most beautiful examples can be found in *Carmina Burana*⁶⁶ as the piece “*Fortuna Imperatrix Mundi*”:

Latin original

O Fortuna,
velut Luna,
status variabilis,
semper crescit
aut decrescit;
vita detestabilis
nunc obdurat
et tunc curat
ludo mentis aciem,
egestatem
potestatem
dissolvit ut glaciem.
Sors immanis
et inanis,
rota tu volubilis,
status malus

English translation

O Fortune,
like the moon
you are changeable,
ever waxing
and waning;
hateful life
first oppresses
and then soothes
as fancy takes it,
poverty
and power
it melts them like ice.
Fate - monstrous
and empty
you whirling wheel,
you are malevolent,

⁶⁶ *Carmina Burana* or "Songs of Benediktbeuern" is a collection of 13th-century stories, poems and songs written by goliards, which was discovered in 1803 at a monastery in Beuern, Bavaria.

*vana salus
 semper dissolubilis,
 obumbrata
 et velata
 michi quoque niteris;
 nunc per ludum
 dorsum nudum
 fero tui sceleris.
 Sors salutis
 et virtutis
 michi nunc contraria
 est affectus
 et defectus
 semper in angaria.
 Hac in hora
 sine mora
 cordum pulsum tangite;
 quod per sortem
 sternit fortem,
 mecum omnes plangite!*

*well-being is in vain
 and always fades to nothing,
 shadowed
 and veiled
 you plague me too;
 now through the game
 I bring my bare back
 to your villainy.
 Fate is against me
 in health
 and virtue,
 driven on
 and weighted down,
 always enslaved.
 So at this hour
 without delay
 pluck the vibrating strings;
 since Fate
 strikes down the strong man,
 everyone weep with me!*

Many board games (seen as oracles) from different civilizations were used as judges to take difficult decisions. Randomness was seen as the voice of the ancestors, favoring one or other player (BIEDERMANN, H. 2000: 254). As an example, for the Alagya people from Ivory Coast, playing Mancala during the night is taboo. There is only one exception: when they have to choose a new leader. The interested participants play all night long, talking among themselves in a secret tongue, unknown to the uninitiated. In the morning, the winner has been chosen by the ancestors, and becomes their new leader (SANTOS, E. 1995: 52-53). However, we do not need to go so far afield to find an example: in the Old Testament (Ex 28,30 & Lv 8,8) the implements called *urim* and *tummim*⁶⁷, appear as a means to know God's Will. The high priest of Israel carried them with him in his pectoral (called Pectoral of Judgment). They had

⁶⁷ In the *Vulgata* they were translated as "doctrine" and "truth", but a narrower, more precise translation would be "clarity" and "sanctity" (VIGOROUX, F. 1912: 2364)

two distinct faces, like coins (VIGOROUX, F. 1912: 2364). The *urim* and *tummim* were thrown in the air and in landing on one side or the other answered the questions from the Priest, showing God's will (LHÔTE, JM 1994: 63). This consultation could only be made by the High Priest, who was able to interpret the designs and portents, and only in a very specific and elaborated ceremony. This ritual was even at that moment already considered ancient, maybe descending from Babylonia, and it was already out of use in the III B.C. (VIGOROUX, F. 1912: 2362, 2366).

Even if we cannot talk about this ritual as a game or even part of one we can see that a system based on randomness was considered the earthly expression of the divine Will. That same kind of ritual was used in the Egyptian Late Period to settle troublesome legal disputes, with reed strips folded with the names of the litigants written on them. Taking lots decided the outcome of the trial, which was seen as expressing the Will of God (TAIT, W.J. in FINKEL, I. 2007: 51). In the same way, throwing a stone over the shoulder in order to make it stop near the center of a specially drawn diagram on the floor (very similar to a Merels board) was used in Czechia. The accused and the plaintiff had to hit the circle in the center blindfolded, and the one who did was considered as telling the truth, in accordance with God's will (BERGER, F. 2004: 12).

In India the philosophical concept of *karma*, or fate, was reproduced in games by the use of dice (MARK, M. in FINKEL, I. 2007: 151). In the same way, we have some passages in the *Rig-Veda* where we can find prayers to the dice, as if they were gods or heroes: "The Heroes dressed with fire the fatted whether [sic]: the dice were thrown by way of sport and gaming. Two reach the plain amid the heavenly waters, hallowing and with means of purifying" (RIG X.27.17). The player talks to them, takes them as testimonies of his prayer and messengers of

superior powers. Dice are “sons” of the Great *Vibhádaca* (He who distributes luck). They have the power to establish a relationship with the soul of the player and they are literally charmed, with the power to decide on his life (LHÔTE, JM. 2995:35).

In fact, we find this kind of relationship in Mesopotamia and the Indus valley circa 2000 BC, in Egypt around 1990-1780 BC, in Crete (1800-1650 BC) and in the area of Palestine in around the XVI century BC (ELIADE, M. 1987: 469). In fact, the game of Ur has also been related to divination, because it has great similarities with liver divination notations. There are also occurrences of the game of Twenty Squares drawn at the back of a clay liver model, presumably related to the twenty parts into which a liver was divided (BECKER, A. in FINKEL, I. 2006:12-14). In the article by I. Finkel discussing the rules of the game of Ur, he also notes this relationship (FINKEL, I. in DE VOOGT, J. 1995: 64-72). However, in another research article, Finkel points out that there is no evidence that these games were preponderantly used as fortune-telling devices (FINKEL, I. in FINKEL, I. 2007: 25-26).

It is customary in Korea to use the Nyout sticks for divination. They are related to the I-Ching and to the sixty-four hexagrams (CULIN, S. 1991: 72-73). In any case, it seems that the power of divination attributed to dice can easily pass to board games with random generating implements, such as path games. The result is, as Dunn-Vaturi explains : “*Certains jeux dépassent le cadre ludique car les instruments du hasard, dés et astragales, représentent l'intervention divine sous le cours de la vie matérialise par le déplacement des pions sur le plateau. De manière universelle, le jeu est détourné à des fins divinatoires.*” (DUNN-VATURI in SCHÄEDLER, U. 2007: 21). However, this can also be applied to games without manifest randomness. Fairbairn postulates that the Weiqi board could have been used for divination, as being related to the Luo-Shu. As early history of Weiqi is still being debated,

nothing concrete can be proved. However, there are myths about its existence, one of which assumes that Go was an ancient fortune-telling device used by Chinese cosmologists to simulate the universe's relationship to an individual, with the balance of Yin and Yang. (FAIRBAIRN, J. in FINKEL, I. 2007: 133-135).

So then, we can see that divination is directly related to board games in Antiquity. The whole game becomes a channel to know the will of the gods. To win is a good omen, as losing is a bad one. The winner in the game would also “win” in life. This idea can be better seen in one of the elements that usually accompanies board games: gambling.

3.2.4 Sacred & profane gambling

Gambling is a powerful gaming experience that has always moved (or even obsessed) players. The truth is that even though most of the players over the world gamble moderately and with positive results for family life and pleasure, most of the literature (modern and ancient) focuses only on the pathological gambler. Playing for money is (and was) almost a universal practice and a normal form of play for both children and adults, not always being intrinsically motivated (SUTTON-SMITH, B. 2001: 67). In any way, there are multiple accounts of compulsive gamblers and their terrible losses, such as *Yudhisthira* in the *Mahabharata*, who loses his wealth, possessions, kingdom, troops, his brothers, , his queen and his freedom. These mythical teachings warn the player about what is at stake when playing games for something beyond the game itself.

Playing with such an essential thing for life such as money, is to play with real life itself, thus breaking the essential barrier between game and real life. When money and games coincide, players tend to shift the game from *otium* (leisure) into *nec otium* (non-leisure, that is, business). This dichotomy between leisure

and business exists since ancient times. The former encompasses spontaneous and free activities such as culture, education, art or games. To the latter belongs activities such as commerce, work, production or gain (LOPEZ, R. 1997: 49). Playing for money would fit just in between, being a game for gain.

However, ritual gambling was a common practice in ancient cultures. People gambled to please the Gods, in order to ensure fertility or rain, give or extend life, expel demons or heal illnesses (CULIN, S. 1975: 34). Therefore, as Lhôte asserts, it is not the fact of gambling (and cheating) that is dangerous or



Tibetan representation of Samsara, the Wheel of Suffering. Note the three animals at its centre: Pig, Snake and Eagle.

harmful for man but his disposition while doing so (LHÔTE, JM. 1994: 39). As we have seen, even though gambling is seen as a dangerous activity, it is sometimes seen as the lesser evil. In Tibet there is an annual celebration where a priest, in representation of the powers of light and the great Lama, plays against another priest, characterized as the king of the evil spirits. They gamble upon the kingship of the land, and the winner is to be announced as the spiritual and terrene leader of the country. The thing is that the Lama always wins because he is using loaded dice, and he then pursues and banishes the demon (ELIADE, M. 1987: 473). Here we can see gambling and cheating in a sacred environment, where the Lama uses the tricks and methods of the “dark side” to keep the light in place. The figure of a mythical gambler appears in many cultures. It is interesting to note that this same figure is at the same time a cultural hero, bringing civilization to his people (GABRIEL, K. 1996: 23).

Gambling games provide an experience of otherness or altered states of consciousness. In addition, these or similar states of mind are as essential to religious ritual and prayer as they are to game involvement. In both cases, one becomes lost in the experience and thus transcends daily cares and concerns (SUTTON-SMITH, B. 2001: 67). Both believers and players see in these “transcendental” experiences something that gives sense to their lives. Therefore, the gambler is somehow unknowingly looking for divinity. To be certain, on the surface they are seeking economic fortune, but they are also seeking a personal transformation, for that feeling of invincibility and liberation, even if only at the moment of exhilaration. This moment is indeed transitory, and the seeking of its perpetual repetition is what can sometimes throw the individual out of integrity, causing addictive cycles. Whatever the forces are that the gambler believes is causing him or her to win or to lose; they can never sustain or nurture the gambler. Of course, these forces do not exist outside of the self, but lie within one’s own actions.

Every great religion has some kind of prohibition or at least rejection of the union of games and money. Gaming for money (gambling) is seen as a clear source of trouble for man (PENNICK, N. 1992: 230-231). For the Hindu, gambling goes against the improvement of the soul. We can find references against gambling in the *Mahabharata*, spoken by *Kṛṣṇa* Himself, warning how dangerous playing for money can be (ELIADE, M. 1987: 472). After that, he continues explaining that gambling is the worst vice, because it is purely born out of desire (desire to play and desire for money). This idea brings us to the center of the Hindu doctrine: desire. Everything that generates desire ties men more and more to the earth, taking them away from illumination and Nirvana. Gambling, that is, falling into desire is returning to the *Samsara*, the wheel of reincarnations⁶⁸.

On the other hand, we cannot fully understand the symbolism of gambling without its religious significance (ELIADE, M. 1987: 468). In this context, gambling goes together with divinatory and oracular practices, but also with foundational and cosmogonic myths. In his book on North American Indian games, Culin summarizes the common pattern of references to gambling games in the origin of myths of numerous tribes. As he explains: “They usually consist of a series of contests in which the demiurge, the first man, the culture hero, overcomes some opponent, a foe of the human race, by exercise of superior cunning, skill or magic” (CULIN, S. 1975: 32).

⁶⁸ The *Samsara* is mostly represented as a wheel. Man reincarnates through different worlds up to when he is able to become completely free and escape. In the center of the wheel, at its axis there is the main idea of this doctrine, represented by three animals biting their tails in a circle (a pig, a snake and an eagle). The pig symbolizes ignorance, the eagle, desire, and the snake, anger. In this way, we learn that ignorance of the world makes us have material desires. When we cannot achieve those desires, we get frustrated, angry, blind and then more ignorant!

In the *Rig-Veda* there are some poems dedicated to the gambler: “Indeed, by celestial intelligence, he creates victory, when he, a gambler collects his winnings in time. Divinely-desired, he overwhelms the offerer who does not withhold his riches, with wealth.” (RIG.X.42.9). Dice are seen as the cube, being perfection and a repetition of the symbol of four, the square, symbolizing the four *yugas*, etc. (COOPER, J. 2000: 65).

Following the same idea but in a different context, an Egyptian legend explained by Plutarch (in his *De iside et Osiride*, 12) explains that the goddess Nut (the sky) becomes the lover of and pregnant by Geb (the earth, and her son too). For this incestuous relationship, she is cursed by Ra to be unable to give birth “any day of any month” (MEEKS, D. 1993: 119). Finally, Nut implores Thoth for help, because her sons keep growing inside her, causing her great pain. According to Plutarch, Thoth plays Petteia⁶⁹ with Selene, the Moon, and by gambling he wins a 72nd part of her moonlight (probably cheating). With that amount of light, he manages to create five more days that he adds to the calendar. In these days, not belonging to “any day of any month”, Nut is able to give birth to five gods, Osiris amongst them (MEEKS, D. 1993: 333). We should remember that Thoth is the accountant of the gods and works as intermediary, lawmaker and inventor of the calendar, science, writing and of course, of games, trickery, robbing and gambling (MEEKS, D. 1993: 149).

⁶⁹ Of course, this is according to Plutarch. The game in question is assumed to be Senet, unknown to Plutarch.



A scene from the movie Det sjunde inseglet (1956), by Ingmar Bergman. Here we see how the knight plays Chess with Death, in order to win time.

Senet was used in the funerary rites for “gambling” on one’s soul entering unharmed into the other world. The deceased played against the “invisible opponent”, against the gods, in order to grant the passage of his soul. We can find another example where Seton Kamois, the son of Ramses II, plays Senet with the dead in order to be able to read a powerful cursed book. Therefore, in Senet, death and gambling seem to go together. The stakes were high as the whole afterlife was in play. The player, through the board game of Senet, assured the mobility of his *ba*, allowing its migration to the other world (PICCIONE, P. in FINKEL, I. 2007: 59-60). As Caillois summarizes: *“Le défunt joue son sort dans l’autre monde et gagne ou perd l’éternité bienheureuse”* (CAILLOIS, R. 1967: 6).

In the same way, the game Liubo is also seen in a Heavenly or divine environment, being played by immortals, as if it were some kind of divine game. There are many representations of these “divine players” playing Liubo

In fact, both King Zhao of the Qin and Emperor Wu of the Han are both said to have contested the game with immortals (MACKENZIE, C. in MACKENZIE, C. & FINKEL, I. 2004: 122). In other stories, ambitious mortals seek to play with spirits or celestial powers to obtain superhuman powers from them. In one of these stories, a *Shang* king made a statue to represent the Heavenly spirit. Then, he played Liubo against it with one of his subjects making the moves for the statue. When the spirit was defeated, the king insulted it. King Zhao ordered artisans to climb Mount Hua and there make giant *bo* (throwing sticks) from the trunks of trees. Afterward he wrote an inscription stating: “King Zhao once played *bo* against a heavenly spirit here”. In another story, a bold youth challenged the deity of an earth-god shrine to a game of Liubo. Should he win, he would borrow the god’s power for three days, while if he lost the god could make him suffer. With his left hand, he threw the dice for the god and with his right hand, for himself. In this way, he won the match and borrowed the power, but did not return it. After three days, the god went to find him, and the grove round the shrine dried and died (LEWIS, ME. 2006: 280-281).

4. CONCLUSIONS

The research project has produced a variety of conclusions that we will proceed to sort. We have synthesized the results in four categories, following each of the four categories presented in the hypotheses. First, we will report the specific conclusions, followed by the general ones. Second, we will comment the main conclusion extracted from the main hypothesis. Finally, we will briefly delve into the methodological conclusions.

Specific conclusions

As the main research has been developed from two different points of view, here we will explain the conclusions extracted from these two main research lines: board games as cosmograms and board games as anthropograms. As we will see, symbols present in ancient board games are coherent with traditional cosmological symbolism. This coherence is crosschecked from two complementary visions: geometrical-cosmological and anthropological-philosophical. In this way, board games become a workshop where one can examine and enrich these symbolic ideas.

Board games as cosmograms

Similarities found between board games and *mandalas* are not accidental but rather based on a common cosmovision and symbolic tradition. These roots are what we have called “primal geometry”, which includes the key geometrical patterns: center, cross, square (or grid) and circle (or spiral).

If we take the symbol of the center, we see that while playing, the board becomes the center of their immediate world, the *axis mundi*, for the players. The game happens only at that precise point of space, completely changing its everyday meaning. At the same time, the center (or sub-centers) of the board,

always have a special meaning. It can be the goal, or a point of strategic relevance, related to the idea of ascension or peregrination. It can also have the same attributions of a sacred or tabooed space, a place of special dignity where special rules apply. Finally, center is the symmetry axis, a common constitutive basis for (almost) every ancient board game.

The symbol of the cross in board games is also related to orientation and division of space. In games where the cross is a main design element (Pachisi, Asta-kaste, Patolli, Nyout, Zohn-Ahl) there is a clear symbolic relationship with that idea. In many other games (not all cruciform), the four sides of the board are named after cardinal directions. This reinforces even further the sense of the board as *imago mundi*. Crosses are also used to mark special squares on the board (also seen as rosettes).

The square in ancient board games implies the idea of limit. The board is the limit between the real and the gaming worlds, a container. At the same time, each square is a sacred limit, a pit or room from which pieces cannot escape until moved. No piece can be “between” the squares, but has to be perfectly defined. The name “house” given to gaming squares since ancient times and still in use, reinforces the idea of a meaningful and independent space with complex rules regarding entrances and exits.

The multiplication of squares generates the grid, which is used to divide and organize the board. Therefore, the same symbolic connotation that we found for squares can be applied to each of the squares that form the board. This grid is also used to place and distribute the pieces over the board according to their importance, with a meaningful resemblance with sacred ancient distribution systems.

The symbol of the circle implies rotation, movement, and therefore life. In board games, movement and life go together because often pieces are said to be “alive” if they are able to move. All games that have an axial point reproduce the idea of circular movement. This is related to the movement around the fire, temple or altar, reproducing the movement of the sun and the stars, a common ritual practice in antiquity.

Spirals, coiled paths, have to be seen as labyrinths, sharing all their symbolic implications. The same idea can be applied to every other game based on paths: they are analogous to a path of ascension, a test to reach spiritual perfection.

On the other hand, the spiral represents growth and periodicity within the passing of time. The movement of the pieces, the turns, can be related with the passing of time because they summarize the meaningful moments of the act of playing. In fact, it is usual to find mythical references relating games to calendars. There is no legal “going back” in a game, as there is no way to go back in time. Time is presented as space, a coiled, difficult path.

Recapitulating, we see how geometrical patterns found in traditional cosmological symbolism are also present in board games. Because of their roots in traditional cosmological symbolism, ancient board games share a structural resemblance with *mandalas*. Both cultural manifestations represent traditional cosmological and philosophical ideas through the key symbols of regular geometry.

Board games as anthropograms

Following the second line of research, we have extracted the following conclusions regarding the symbolic anthropological facet of ancient board games.

At a mythical level, we see that sitting round a board following special rules suspends reality in the same way that the *aoristos* verbal tense does. Explaining the rules to a newcomer is telling the myth again, and their actualization (actually playing the game) transforms the players into the heroes of the adventure. The analogical relationship between myths and board games works at this ontological level: myths explain internal human processes as external events. This keeps the rules in a perennial present at the same time as giving them authority.

“Reaching the goal after a hard way” is both the summary of every mythical quest and every board gaming session. Board games are basically challenges, and therefore symbolically related to the “heroic challenge” and to the heroic myths. Achieving the goals of the game is analogous to life, conquering truth, finding oneself. Board games can be seen as symbolizing a transcendental environment, taking the form of a “difficult passage”, an ordeal, or a quest. Path games are easy to relate to life, and the overcoming of its obstacles. The challenge that any game presents is symbolically related to the heroic deed, and the setting of rules to the civilizing facet of the hero.

Game rules clearly involve ethics. Players willingly abide by the artificial rules of board games but precisely for that reason a judge or referee is needed, even if he is the opponent himself. Trying to cheat is as old as setting rules, as is its punishment: expulsion.

The figure of the opponent plays a key role in understanding the mythical implications of board games. He is the embodiment of the challenge within a game. Nevertheless, the opponent is not an enemy, but rather our complement. This is related to the Yin/Yang principle, and can be clearly seen in the opposing forces (usually dark and light) used in board games. The pieces are the link of the player with the board and with the game, the way to connect both worlds. They are vertical accidents in a completely horizontal world (the board). That makes them also the only “live” elements, the only thing in the microcosm that the board represents that has the gift of movement. This same virtue is also a danger: as they “live”, they can “die”, or be taken out of the game.

At a ritual level, as the rules and story behind each game can be said to be mythical (defined *in illo tempore*), the act of playing can be seen as a ritual because players re-enact the rules of the game. As rite reenacts myth through symbols, in playing board games, man symbolically re-enacts the patterns in the cosmos.

This can be seen in Indian cosmology as *līlā*, the play that resonates and resounds throughout the whole of the Cosmos. The creation of the world, the whole universe, is a pure free ludic act of Brahma. Creation does not follow any cause or any reason to be, any objective nor any desire because all of creation is a purely self-contained action, done just for the sake of it. *Līlā* is the metaphor of flux, cycle and movement from where the cosmos appears and disappears. Only by taking the role of a playful mystic and resorting to our inner wisdom, can we find the truth behind illusion and live life meaningfully. Only by playing life, can we understand it.

Another ritual analogy is that of spiritual evolution: a series of steps or stages that have to be achieved, one at a time. Improvement is symbolically represented as a way to be followed up a hill or a ladder that has to be climbed up to Heaven. Board games, especially those based on paths, can be analogically seen as a way of spiritual improvement. They follow the same idea of a difficult path of purification, which once one can overcome the difficulties, leads to the ultimate beatific place, situated at the top, in the center. The exhausting path that the pieces move over takes its toll again and again, sending pieces back (that is, downwards, to earthly existence).

Board games are also related to oracular rituals. Randomness was not seen as such but as the will of the gods. Therefore, winning and losing through randomness was a way to playfully communicate with God. A series of good throws or a well-developed strategy was symbolically equivalent to a fortunate life. In winning or losing, the game became a channel to know the current state of the world and the players themselves.

Finally, the last ritual analogy comes through gambling, a powerful playing experience that has always moved (or even obsessed) players. People gambled to please the gods, in order to assure fertility, rain, to give or extend life, expel demons or heal illnesses. Therefore, it is not the fact of gambling (and cheating) that is dangerous or harmful for man, but his disposition while doing it. That is why so many myths explain how cultural heroes do in fact gamble to save humanity and why gambling was also related to funerary environments where one's soul was at stake.

Therefore, everything we have explained about the cosmos can also be applied to man. Mandalas (and board games seen as *mandalas*) are not only cosmological images but also physio-psychograms. The microcosmic and

macrocosmic levels coincide: they happen at the same time. We have seen how board games relate to sacred space. As the correspondence between board games and ancient cosmology works on a symbolic level, it also works for the other two aspects of sacred tradition: myths and rites. Following the same analogy, we can say that playing board games is a rite that actualizes the myth that the game rules explain.

General conclusions

Now we will delve into the general conclusions, extracted from the whole of the research. As we will see, they are in synchrony with the proposed general hypotheses presented in Part I, chapter 4.

As a first hypothesis, we proposed that games were an important part of human culture, even though traditionally, the scientific community has not treated them as such. From the interest and the amount of results obtained, we can conclude that games are an important part of the universal structural pattern of cultures, and must be given the importance this assessment implies. They are a truly universal, essential and ever-present cultural manifestation, as worthy of study as painting, dance or music.

After that, we hypothesized that ancient board games are not shaped after human activities, but resemble human activities. They are really based on cosmological patterns. We have seen how, in fact, board games did not come into being as abstract copies of concrete human activities but, rather, were based on symbols, cosmological patterns and abstract ideas. In order to facilitate its transmission, a real-life, concrete “theme” was attached to them. This “theme” helped both as a conceptual introduction and as an evocation of pre-conceived ideas that helped in remembering and understanding the game. Therefore, they reproduce symbolically the order and rhythms of nature. This

is the reason why ancient board games are permeated with the key symbolical elements of traditional cosmological symbolism.

This does not mean that games did not also have an important ludic aspect in Antiquity. On the contrary, it was precisely the ludic aspect that allowed their symbolic content to manifest and to be transmitted over time. What we have to remember is that their ludic side does not negate their symbolical content because in fact every cultural manifestation in antiquity (including games) was permeated with sacredness. All this confirms our third general hypothesis.

Board games, while participating in the sacredness of ancient tradition, can be said to be at the same time symbol, myth and rite. In each game, over a symbolical board the players ritually reproduce and recreate the myth expounded in its rules, validating our fourth general hypothesis.

By studying a universal manifestation such as games through the archetypal (interculturally coherent) ideas of traditional symbolism, we have found deep concordances and similarities in cultures from around the world. These correspondences help to rediscover humanity as a whole, with a common symbolical tradition and legacy of shared fears and hopes that naturally appear everywhere. This is clearly seen in the *mandalas*, which, as we hypothesized, have a deep relationship with board games.

In addition, we have seen how, as we pointed out in the hypotheses, the playing space is analogous to sacred space. In remembering a space as ludic or sacred, we repeat the original hierophany that made it special. In separating the board from the rest of reality, it becomes meaningful. The symbolical basis of board games is that they are *imago mundi*, a symbolical representation of the

world. More specifically, board games share symbolical traits (special rules, separation from reality, taboo of interruption, etc.) with sacred spaces.

Main conclusion

After all the general conclusions have been formulated, we can check the validity of the main hypothesis. Our main hypothesis was that: “Ancient board games have, as pointed out by Huizinga, Coomaraswamy and Biedermann, a symbolic or gnoseologic content. This content is in consonance with traditional cosmological symbolism”.

As we have seen, ancient board games *do* have a symbolic and gnoseologic value (complementary to their ludic and pragmatic use). This value is based on Traditional Cosmology, which in general terms, is shared by the ancient Western and Eastern sacred traditions.

Methodological conclusions

Lastly, we want to explain the conclusions extracted from the application of the proposed methodology. In addition, we will extract some methodological conclusions from the preliminary part of the research, where the theoretical model and the object of study were defined.

We hypothesized that the interpretation of symbols present in board games could be performed by means of symbolic hermeneutics, with its theoretical basis rooted in a coherent and consistent knowledge of traditional cosmological symbolism. We have found that both the theoretical model and methodology have proved very useful to this research project. The symbolic hermeneutical approach to board games allows a methodical study of symbols, while giving enough flexibility to follow their symbolic links. The results and conclusions expounded above are proof of this.

The board game classification that we proposed is coherent and works at a rule-level. However, as we have experienced, when trying to extend the same method to symbols it does not work as intended. We find that games that are symbolically very close (such as Pachisi and Hnefatafl) are in separate groups of our classification. Therefore, for further research in this matter we would not encourage the use of this classification. The symbol-by-symbol approach to the subject was far more interesting and productive than a game-by-game approach, because it allowed us to see the symbolical concordances between seemingly different games. This fact allowed us to further deepen and refine our understanding of their symbolical meaning.

5. FURTHER LINES OF RESEARCH

During the development of the research project, we have identified some interesting lines of research that have ultimately been set aside in order to concentrate on the main goal. As we have pointed out above, it would be very interesting to conduct further research into these subjects.

- Is there a coherent universal symbolic system, prior to all symbolic traditions? Could a list of common basic symbols be established?
- Is there any symbolic evidence that could help to know for sure if the Phaistos disk or the Knossos board were actually board games?
- The rules of Senet are shrouded in mystery. Even though reconstruction proposals have been made, in fact, it is one of the few ancient asymmetrical games known (if not the only one). Was it designed as a solitaire? Or perhaps it is the first asymmetrical two-player game?
- Why do board games appear as protective talismans (or vice versa)? Is there a deeper reason, apart from the common symbolical meaning?
- Many interesting games were left out of the scope of this research project due to the decision to limit the subject of research to board games. It would be very interesting to widen this research project to other ancient ludic manifestations, such as “card” games (i.e. Tarot, Mahjong) or string games.

III

BIBLIOGRAPHY

BOOKS

- ALBERT DE PACO, J.M. (2003) *Diccionario de símbolos*, Optima, Barcelona
- ALFONSO X (1283) *Libro del Acedrex, dados e tablas*
- ALLEAU, R. (1982) *La science des symboles*, Payot, Paris
- ALZINA, J. (1998) *Diccionario de arqueología*, Alianza, Madrid
- ANDREWS, W.S. (1960) *Magic squares and cubes*, Dover, New York
- ANTON, J.A. (1988) *Symbolica nomina*, Symbolos, Barcelona
- ARNAIZ, A. & ALONSO, J. (1999) *Minoicos, Cretenses y Vascos*, Estudios Complutenses, Madrid
- AUGUET, R. (1972) *Los Juegos Romanos*, AYMA, Barcelona
- AVEDON, E. & SUTTON-SMITH, B. (1979) *The Study of Games*. Krieger, New York
- BALAMBAL, V. (2005) *Folk games of Tamilnadu*, C.P. Ramanwami Aiyar Foundation, Chennai
- BELL, RC. (1979) *Board and table games from many civilizations*, Dover, New York
- BENOIST, L. (1985) *Signes, symboles et mythes*, Presses Univ. de France, Paris
- BERLOQUIN, P. (1970) *Le livre des jeux*, Stock, Paris
- BERGER, F. (2003) *The Merels Board as a Symbol*, F.Berger Ed., Essen
- BEST, E. (1976) *Games and passtimes of the Maori*, Shearer, Wellington
- BIARDEAU, M. (1981) *L'Hindouisme*, Flammarion, Paris
- BIEDERMANN, H. (2000) *Diccionario de simbolos*, Paidós, Barcelona
- BOHN, H.G. (1873) *Handbook of Games*, Bell & Daldy, London
- BOURGEOIX, P. (1975) *Extension of Ricoeur hermeneutics*, Kluwer Academic Publishers, London
- BRAUEN, M. (1998) *The Mandala, sacred circle in Tibetan Bhuddism*, Shambala, Boston
- BRENNER, R. & BRENNER, G. (1993) *Spéculation et jeux de hasard*, Presses Univ. de France, Paris
- BROWN, N. (1969) *Hermes the thief*, Vintage Books, New York
- BRUNET, J. (1890) *El ajedrez investigaciones sobre su origen*, L'Avens, Barcelona
- BURCKHARDT, T. (1997) *Símbolos*, Olañeta, Palma de Mallorca
- (1999) *Ensayos sobre el conocimeinto sagrado*, Olañeta, Palma de Mallorca
- BUYTENDIJK, F.J.J. (1935) *El Juego y su significado*, Revista de occidente, Madrid

- CAILLOIS, R. (1958a) *Teoria de los juegos*, Seix Barral, Barcelona
 ----- (1958b) *Les Jeux et les Hommes*, Gallimard, Paris
 ----- (1967) *Jeux et sports*, Gallimard, Paris
- CARDONA, F. (2000) *Mitologia del Ajedrez*, Edicomunicación, Barcelona
- CARSE, J. (1987) *Finite and infinite games*, Ballantine Books, New York
- CARO, R. (1978) *Días geniales o ludicos*, Espasa-Calpe, Madrid
- CAZAUX, J.L. (2003) *Du Senet au Backgammon, Les jeux de parcours*, Chiron, Paris
- CHAMPEAUX, G. & DOM STERCKX, (1972) *Introduction au monde des symboles*, Zodiaque, Paris
- CHARPENTIER, L. (1973) *El misterio de las catedrales*, Plaza y Janes, Barcelona
- CHEVALIER, J. & GHEERBRANT A. (1995) *Diccionario de los símbolos*, Herder, Barcelona
- CIRLOT, J.E. (1991) *Diccionario de símbolos*, Gersa, Sant Joan Despi 1991
 ----- (1998) *Diccionario de símbolos*, Labor, Barcelona 1998
 ----- (2004) *Diccionario de símbolos*, Siruela, Barcelona 2004
- COLUCCIO, F. (1988) *Diccionario de juegos infantiles latinoamericanos*, Corregidor, Buenos Aires
- COMAS, O. (2005) *El Món en jocs*, La Magrana, Barcelona
- COOMARASWAMI, A.K. (1977) *Selected papers. Traditional art and symbolism (I)*, Princeton University Press, Oxford
 ----- (1977) *Selected papers. Metaphysics (II)*, Princeton University Press, Oxford
- COOPER, J.C. (2000) *Diccionario de símbolos*, Ormograf, Barcelona
- COPPIN, F. & MARCHAND, M. (2006) *La voie du Go: propos sur le jeu de go*, Chiron, Paris
- COTTA, A. (1980) *La société ludique*, Grasset, Paris
- CUDON, J.A. (1980) *The Macmillan dictionary of sports and games*, Macmillan, London
- CULIN, S. (1975) *Games of the North American Indians*, Dover, New York
 ----- (1976) *Chess and playing cards*, Arno Press, New York
 ----- (1991) *Korean games*, Dover, New York
- DAVIS, M. (1986) *Introducción a la teoría de juegos*, Alianza Universidad, Madrid
- DECKER, W. (1992) *Sports and games of ancient Egypt*, Yale University Press, Michigan

- DE VOOGT, A. (1995) *New approaches to board games research: asian origins and future perspectives*, International Institute for Asian Studies, Leiden
 ----- (1997) *Mancala Board Games*, British Museum Press, London
- DUCH, LL. (1998) *Mito, interpretación y cultura*, Herder, Barcelona
- DUFLO, C. (1997) *Jouer et philosopher*, Presses universitaires de France, Paris
- DURAN, G. (1993) *Les structures anthropologiques de l'imaginaire*. Dunod, Paris
- ELIADE, M. (1963) *Aspects du mythe*, Gallimard, Paris
 ----- (1974) *Imagenes y símbolos*, Tauro ediciones, Madrid
 ----- (1987) *The Encyclopedia of Religion*, Macmillan, New York
 ----- (1993) *Cosmología y alquimia babilónicas*, Paidós, Barcelona
 ----- (1994) *El mito del eterno retorno*, Altaya
 ----- (1997) *Tratado de Historia de las Religiones*, Era, México
 ----- (2003) *Lo sagrado y lo profano*, Paidós, Barcelona
- FABREGAS, X. (1987) *El fons cultural de la vida quotidiana*, Edicions 62, Barcelona
- FERRATER, J. (1970) *Diccionario de filosofía abreviado*, Ed.Sudamericana, Buenos Aires
- FALKENER, E. (1961) *Games ancient and oriental*, Dover, New York
- FARGAS, A. (1997) *Simbolismo de los juegos de mesa*, MRA, Barcelona
- FINK, E. (1966) *Le jeu comme symbole du monde*, Minuit, Paris
- FINKEL, I. (2004) *Games. Discover and play 5 famous ancient games*, British Museum Press, London
 ----- (2007) *Ancient board games in perspective*, British Museum Press, London
- FITTÀ, M. (1997) *Giochi e giocattoli nell'antichità*, Leonardo Arte, Milano
- FROMM, E. (1989) *Le langage oublié*, Payot, Paris
- FULCANELLI (1990) *El misterio de las catedrales*, Plaza y Janes, Barcelona
- GABRIEL, K. (1996) *Gambler's way*, Johnson Books, Boulder
- GALLARDO, M.D. (1995) *Manual de mitología clásica*, Ediciones Clásicas, Madrid
- GASULL, J. (1991) *El juego del ajedrez o dechado de fortuna*, Siruela, Madrid
- GOMEZ DE LIAÑO, I. (1998a) *El círculo de la sabiduría (I)*, Siruela, Madrid
 ----- (1998b) *El círculo de la sabiduría (II)*, Siruela, Madrid
 ----- (1999) *El idioma de la imaginación*, Tecnos, Madrid
- GONZÁLEZ, F. (1986) *La rueda. Una imagen simbólica del Cosmos*, Symbolos, Barcelona

- GONZÁLEZ, J.A. (1993) *Tractatus ludorum*, Anthropos, Barcelona
- GRANET, M. (1948) *La civilisation Chinoise*, Albin Michel, Paris
 ----- (1968) *La pensée Chinoise*, Albin Michel, Paris
- GRIAULE, M. (1938) *Jeux Dogons*, Institut d'Ethnologie, Paris
 ----- (1948) *L'arche du monde chez les populations nigériennes*, SDA, Paris
- GROF, S. (2001) *El juego cósmico*, Kairós, Barcelona
- GROOS, K. (1901) *Play of man*, Appleton, New York
- GUENON, R. (1931) *Le symbolisme de la Croix*, Véga, Paris
 ----- (1984) *Formas Tradicionales y Ciclos Cósmicos*, Obelisco, Barcelona
 ----- (1995) *Símbolos fundamentales de la ciencia sagrada*, Paidós, Barcelona
 ----- (2003) *El simbolismo de la cruz*, Olañeta, Palma de Mallorca
 ----- (2004) *La gran tríada*, Paidós, Barcelona
 ----- (2004b) *Symbols of sacred science*, Sophia Perennis, New York
- GUILLEN, J. (1997) *Urbs Roma*, Sígueme, Salamanca
- HACKING, I. (1999) *The emergence of Probability: a philosophical study of early ideas about probability, induction and statistical inference*, Cambridge University Press, Cambridge
- HANS, J. S. (1981) *The Play of the world*, University of Massachusetts Press, Amherst
- HARRIS, M. (1990) *Antropología cultural*, Alianza, Madrid
- HENRIOT, J. (1969) *Le Jeu*, Presses Univ. de France, Paris
- HOLZAPFEL, C. (2003) *Crítica de la razón lúdica*, Trotta, Madrid
- HUIZINGA, J. (1972) *Homo ludens*, Emecé, Buenos Aires
 ----- (1997) *El otoño de la edad media*, Altaya, Madrid
- JOUSSE, M. (2008) *L'Anthropologie du geste*, Gallimard, Paris
- JUNG, C. (1997) *El hombre y sus símbolos*, Paidós, Barcelona
- KEENE, R. (1990) *Chess: an illustrated history*, Phaidon, Oxford
- KEMP, B. (1998) *El antiguo egipto: anatomía de una civilización*, Editorial Crítica, Barcelona
- KENDALL, T. (1980) *Patolli: a game of ancient Mexico*, Kirk Game Company, Massachusetts
- KERN, H. (2000) *Through the labyrinth*, Prestel, New York
- KRAITCHIK, M. (1930) *Traité des carrés magiques*, Gauthier-Vill, Paris

- KÜHME, D. (1997) *Bürger und spiel*, Campus, Frankfurt
- LAVEGA, P. (1999) *1000 juegos y deportes tradicionales, la tradición jugada*, Paidotribo, Barcelona
- LEIGH, B. (2002) *La Tierra Sagrada*, Evergreen, Köln
- LEROUX, H. ET AL. (1976) *Le Jeu. Analyses et Réflexions sur...* Edition Marketing, Paris
- LHOTE, J.M. (1976) *Le symbolisme des jeux*, Berg-Paru, Paris
- (1994) *Histoire des jeux de société*, Flammarion, Paris
- (1996) *Dictionnaire des jeux de société*, Flammarion, Paris
- LOEWE, M. (1979) *Ways to paradise*, George Allen & Unwin, London
- LÓPEZ, R. (1997) *El juego como recurso educativo*, Universitat de València, València
- LURKER, M. (1992) *El mensaje de los símbolos*, Herder, Barcelona
- MACKENZIE, C. and FINKEL, I. (2004) *Asian games: the art of contest*, Asia Society, London
- MANCIOLI, D. (1987) *Giocchi e Spettacoli*, Quasar, Roma
- MARGUERON, J.C. (2002) *Los Mesopotamicos*, Catedra, Madrid
- MEEK, D. (1996) *La vida cotidiana de los Dioses Egipcios*, Temas de hoy, Madrid
- MORIN, C. (1991) *La roue de la fortune*, Perrin, Paris
- MURRAY, HJR., (1913) *A history of chess*, Oxford University Press, Oxford
- (1951) *A history of games other than chess*, Oxford University Press, Oxford
- OLIVES, J. (2006) *La ciudad cautiva*, Siruela, Madrid
- (2007) *Trayecto intelectual y principales líneas de investigación*, S.P., Barcelona
- OLSON, A. (1980) *Myth symbol and reality*, Notre Dame Press, Notre Dame
- Oxford Classical Dictionary* (1970), Clarendon Press, Oxford
- PARLEBAS, P. (1988) *Las cuatro esquinas de los juegos*, Agonos, Lleida
- (1989) *Elementos de sociología del deporte*, Unisport, Málaga
- PARLETT, D. (1999) *Oxford History of Board Games*, Oxford University Press, Oxford
- PASTOREAU, M. (1990) *L'echiquier de Charlemagne*, Adam Biro, Paris
- PIAGET, J. (1977) *La formación del símbolo en el niño: Imitación, juego y sueño*. Fondo de cultura economica, México

- (1984) *Psicología del niño*. Morata, Madrid
- PICK, J.B. (1963) *Dictionary of games*, JM Dent & sons, London
- PENNICK, N. (1992) *Secret games of the gods*, Samuel Weiser, Maine
- RICOEUR, P. (1969) *Le conflit des interprétations*, Editions du Seuil, Paris
- (1981) *Hermeneutics and the human sciences*, Cambridge University Press, Cambridge
- RIVIÈRE, J. (1974) *Amuletos, talismanes y pantáculos*, Martinez Roca, Barcelona
- ROBINSON, A. (2003) *The story of writing*, Thames & Hudson, London
- ROUX, G. (2002) *Mesopotamia, historia política, económica y cultural*, Akal, Madrid
- RUIZ DE ELVIRA, A. (2000) *Mitología Clásica*, Gredos, Madrid
- RYKWERT, J. (1985) *La idea de ciudad*, Graficinfo, Madrid
- SANTOS, E.R. (1995) *Jogos de quadrícula do tipo mancala com especial incidência nos praticados em Angola*, Ministério do Planeamento e da Administração do Território, Lisboa
- SESIANO, J. (1996) *Un traité medieval sur les carrés*, Presses Polytechniques, Lausanne
- SORVAL, G. (1981) *La Marelle*. Dervy-livres, Paris
- (1981b) *Le langage secret du blason*, Paris, Albin Michel
- STACCIOLI, G. (2001) *Il Gioco e il Giocare*, Carocci, Roma
- STRIL-REVER, S. (2003) *Traité du mandala*, Desclée de Brouer, Paris
- SUTTON-SMITH, B. (2001) *The ambiguity of play*, Harvard U.P., Cambridge
- TAIT, W.J. (1982) *Box-Games and Accessories from the tomb of Tut'anchamun*, TTS 7, Oxford
- TUCCI, G. (1961) *Theory and practice of the Mandala*, Dover, New York
- UNICEF (1978) *Juegos de Todo el Mundo*, Edilan, Madrid
- (1997) *Jeux du monde*, La Nacelle, Paris
- VAN DER STOEP, A. (2005) *Draughts in relation to chess and alquerque*, Van der Stoep ed., Hooge Zwaluwe
- VIGOROUX, F. (1912) *Dictionnaire de la Bible*, Letouzeyetané, Paris
- VON NEUMAN, J. (2004) *Theory of games and economic behaviour*, Princeton U.P., Princeton
- WATANABE, Y. (1977) *Kodai igo no sekai [The ancient world of go]*, Sani'chi Shobo, Tokio

- WHEATLEY, P. (1971) *The pivot of the four quarters*, Aldine, Chicago
- WILBER, K. (1997) *Los tres ojos del conocimiento*, Kairos, Barcelona
- WILLIAMS, C.A.S. (1976) *Outlines of Chinese symbolism & art motives*, Dover,
New York
- WILLIAMS, G. (2001) *Jaque mate*, Grijalbo, Barcelona
- YATES, A. (1974) *Arte de la memoria*, Taurus, Madrid

ARTICLES

- ALARCÓN, R. (1985) *Los tableros de juego como signos lapidarios. Un ensayo de simbología*, Actes du IV Colloque International de Glyptographie de Cambrai, pp. 131-147.
- BELLESSERT, M. (1992) *Le jeu de serpent*, Les dossiers d'Archeologie n.168, pp. 8-9
- BERGER, F. (2004) *From circle and square to the image of the world: a possible interpretation for some petroglyphs of megalithic boards*, Rock art Research, vol.21 n.1 pp. 11-25
- BOCK-RAMING, A. (1992) *The gaming board in Indian Chess*, Board Games Studies n.2, pp.42-59
- BRUMBAUGH, R. (1975) *The Knossos game board*, American journal of Archeology, vol.79 n.2 pp.135-137
- CAMMAN, S. (1948) *The "TLV" pattern on cosmic mirrors of the Han dynasty*, Journal of the American Oriental Society, vol.68 n.4 pp.159-167
- CLÚA, J.A., (1985) *El mite de Palamedes a la Grècia antiga*, Faventia, vol.7 n.2 pp. 69-93
- COOMARASWAMY, A. (1941) *Lilā*, Journal of the American Oriental Society, vol 61 (2) pp. 98-101
- (1942) *Play and seriousness*, The Journal of Philosophy, vol.39 n.20 pp.550-552
- CULIN, S. (1894) *Value of games in Ethnology*, Proceedings of the Association for the Advancement of Science, pp. 355-358
- DE LA TORRE, R. (1985a) *Tradición de algunos juegos de fichas en los signos lapidarios (I)*, Revista de folklore vol.5.1, pp. 3-9

- (1985b) *Juego de fichas en los signos lapidarios (II)*, Revista de folklore vol. 5.2, pp. 96-104
- (1985c) *Pervivencia, simbolismo y función de los signos lapidarios. Notas de los tableros cuadrados*. Actes du IV Colloque International de Glyptographie de Cambrai, pp. 299-321.
- DEPAULIS, T. (1998) *Inca Dice and Board Games*, Board Games Studies n.1, pp.25-49
- (2001) *Jeux de parcours du monde arabo-musulman*, Board Games Studies n.4, pp.53-76
- DIEGUEZ LUENGO, E. (1974) *Algunas interpretaciones de los grabados del tipo "triple recinto"*, Revista Alcántara de la Diputación de Cáceres n.175 pp. 14-19.
- DUFF, S. (2004) *GO AND ORDER*, Board Games Studies n.7, pp.9-34
- DUNN-VATURI, A. & SCHÄDLER, U. (2006) *Nouvelles perspectives sur les jeux a la lumière de plateaux du Kerman*, Iranica Antiqua, vol.41
- FINKEL, I. (1991) *La tablette des règles du jeu royal d'Ur*, Jouer dans l'Antiquité, exhibition catalogue, Musée d'Archéologie méditerranéenne, Marseille. pp.154-155
- (2002) *Pachisi in Arab Garb*, Board Games Studies n.5, pp.65-78
- GABRIEL, K. (1998) *Gambling and Spirituality, A New Anthropological Perspective*, <http://nmweddingphotos.com/articles/professional/myths.html>
- GALLEGOS, MJ. (1994) *Un patolli prehispánico en Calakmul, Campeche*, Revista Española de Antropología Americana, vol.24 pp.9-24
- KURKE, L. (1999) *Ancient Greek Board Games and How to Play Them*, Classical Philology, vol.94 n.3 pp.247-267
- MATUS, L. (1920) *Juegos y ejercicios de los antiguos araucanos*, Boletín del Museo Nacional de Chile, vol.11 pp.162-197
- MASUKAWA, K. (2000) *Kurze Geschichte des Trickertack in Japan*, Board Games Studies n.3, pp.51-58
- MAY, R. (1992) *Les jeux de table dans l'antiquité*, Les dossiers d'Archeologie n.168 pp.18-33
- MORGAN, C. (2004) *The Chinese game of Shengguan tu*, Journal of the American Oriental Society, vol.124 n.3 pp.517-532

- MULVIN, L. & SIDEBOTHAM, S. (2004) *Roman game boards from Abu Sha'ar, Antiquity*, vol.78 n.301 pp.602-617
- PICCIONE, P. (1990) *Mehen, mysteries, and resurrection of the coiled serpent*, *Journal of American Research in Egypt*, vol.27 pp.43-52
- PURCELL, N. (1995) *Literate games: Roman urban society and the game of Alea*, *Past and present*, n.147 pp.3-37
- ROMAIN, P. (2000) *Les représentations des jeux de pions dans le Proche-Orient ancien et leur signification*, *Board Games Studies* n.3, pp.11-38
- RÖLLICKE, H.-J. (1992) *Von "Winkelwegen", "Eulen" und "Fischzähern"*, *Board Games Studies* n.2 pp.24-41
- ROTHAUS, R.M. (1992) *Omne ignotum pro sacro: quadrisected gameboards and religious graffiti*, *Oxford Journal of Archeology*, vol.11 n.3 pp.365-368
- ROTHÖHLER, B. (1999) *Mehen, God of boardgames*, *Board Games Studies* n.2, pp.10-23
- SANVITO, A. (2002) *Das Rätsel des Kelten-Spiels*, *Board Games Studies* n.5, pp.09-24
- SCHÄEDLER, U. (1998) *Mancala in Roman Asia Minor?*, *Board Games Studies* n.1, pp.10-25
- SHIMIZU, Y. & MIYAHARA, S. (2002) *Game boards in the Longmen Caves and the Game of Fang*, *Board Games Studies* n.5, pp.25-37
- SHIMKHADA, D. (1983) *A preliminary study of the Game of Khurma in India, Nepal and Tibet*, *Atribus Asiae*, vol.44 n.4 pp.308-322
- SHOWTELL, P. (1994) *The game of Go: speculations on its origins and symbolism in ancient China*, *Go world* n.70, revised in February 2008
- TOPSFIELD, A. (1985) *The Indian game of Snakes and Ladders*, *Artibus Asiae* vol.46 n.3 pp.203-214
- VAN BINSBERGEN, W. (1996) *Rethinking Africa's contribution to global cultural history: lessons from a comparative historical analysis of mankala board-games and geomantic divination*, *Talanta* n.28-29 pp.219-251
- VASANTHA, R. (2003) *Board games from the city of Vijayanagara*, *Board Games Studies* n.6, pp.25-36

- VERBEECK, L. (1998) *Bul: a Patolli game in Maya Lowland*, Board Games Studies n.1,
pp.82-100
- W.W.N. (1890) *The symbolism of Backgammon*, The Journal of American Folklore, vol.3
n.10 pp.208