THE CONFUSION BETWEEN ART AND DESIGN

Brain-Tools versus Body-Tools

Tsion Avital
Holon institute of Technology Faculty of Design

Translated by Judy Kupferman

Vernon Series in Art
By the same author

ART VERSUS NONART: Art Out of Mind
In memory of my brother

Shlomo Yedidyiah Avital

For whom science, art and religion

Were different aspects of the same thing.
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Preface

The ideas in this book were created in a very extended process over a period of over thirty three years, during which I taught a course for third year students of design and art whose title was: "Inter-relations between art and design" at the Holon Institute of Technology, Faculty of Design, Israel. The students were from the departments of industrial design, interior design, visual communication design, and for several years there was also a department of art. Each year I began the course with the question: who thinks that design is art? Only a few of about two hundred of the students present raised their hands. My second question was: who thinks that design is not art? Again, only a few students raised their hands. The vast majority of the students could not decide whether or not design is art. Out of curiosity I checked the answers to these questions among experienced designers and architects, including about two hundred members of the Faculty of Design from all departments. Again, the vast majority could not decide whether or not design is art. Some claimed, with justice, that the answer to these questions depends on the manner in which art and design are defined, and therefore they were unable to answer my questions. Surprisingly, cross tabulation of the answers according to the departments to which the faculty belonged did not show dramatic differences between the various departments. This fact indicates that uncertainty as to whether design is art or not lies at a far deeper level than the differences between the various areas of design. Moreover, through years of discussions with students and with experienced designers, I found that both those who think design is art, as well as those who think design is not art, reach their conclusions relying more on baseless conventions, intuition and gut feelings than on a solid theoretical basis which in any case does not exist. The reason for this is simple: in our time, everything and anything may be presented as a work of art. Therefore designers have no clear criterion according to which they can reasonably claim that design is indeed art or not. Therefore, in order to clarify the existing confusion between art and design it is necessary to understand the problem at two different levels: on one hand it is necessary to understand the many different factors that led to this conclusion, and on the other, it is necessary to understand the profound differences that exists in characteristics of the two areas, which in most cases are diametrically opposite. In order to compare the two fields, it is necessary to understand the qualities
that characterized art throughout its twisting evolution over 40,000 years up to our own day. This should be contrasted to characteristics of design, that began about 2.6 million years ago in relation to production of stone tools, and in our own day is done on computer without a necessary connection to material of any kind. The confusion between the two fields is not helpful to either, but just the contrary: it is destructive to both, and especially to design, for art cannot be destroyed more than it already has been. On the other hand, it is important to differentiate art from design in the clearest manner, both in order to protect design from the ills of modern art, and to afford some chance for the rebuilding of art in the future. In order to achieve this purpose, this book proposes a totally new conceptual framework that can help us distinguish most effectively between art and design. Moreover, this book presents for the first time, nearly one hundred distinctions, contradistinctions and comparisons between art and design, thus showing most clearly that art and design are two totally independent domains. In a sense, this book is The Magna Carta Libertatum (Medieval Latin for "the Great Charter of the Liberties") of design from art.

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Throughout all the years of the development of the ideas presented in this book, the previous book and other essays, I did not in fact have a single colleague in Israel, the country in which I live. The many students I have had over the years, first at the Hebrew University of Jerusalem and later at the Faculty of Design at the Holon Institute of Technology, were my real colleagues. The intensive intellectual interaction with them over three decades was the chief means of sifting my ideas, and the grindstone against which all the ideas presented in this book received their form. I have no way of thanking them sufficiently for all that. Thanks to my former assistant, Sandra Folk Kanner, who for many years saved me from much exhausting work. Thanks to Orel Bob, a gifted designer and former student of mine who designed the cover of this book. To Yossi Galanti, who processed all the pictures that appear in this book. Thanks to my brother Avshalom Avital, who took a number of excellent photos for this book. Thanks to Mel Byars and Josiah Kahane who always willingly shared their vast knowledge of design with me. Thanks to my friends and colleagues whom I list in alphabetical order: Pia Aisen, Elise and Patrick Assaraf, Reuven and Janet Cassel, Leonid Dorfman, Alec Groysman, Ozer Igra, Joshua and Kendal Latner, Estelle Alma Mare, Sam Meisels, Vladimir Petrov, David and Eva Shinar, whose caring and friendship have served as vital encouragement for me over the years to keep expressing my views, which often involves swimming against the tide.

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Chapter one

Invitation: Can a chair be a sculpture of a chair?

1.1 On the need to do away with fake sacred cows

Usually writing an introduction to a book is easy in comparison to writing the other chapters of the book, for the introduction is written after all the chapters are completed, and the introduction only needs to give a general and attractive picture of the content of the book, in hope that the reader will be curious enough to read the book or part of it. The trouble is that ideas are not just a logical or informative matter. From the moment we have taken a position with regard to them, we also have an emotional commitment to them, that at times is very strong and even obsessive, and they become part of our identity. Therefore the last thing an author should do is to write things in the introduction that constitute a frontal attack on opinions and feelings of the reader, and thus may annoy or hurt his/her feelings. In this case, almost certainly the reader will close the book, even without really investigating its content, and will recommend to all his/her friends not to waste their time reading this book. When a book contains only a few ideas that may be controversial, they are not written in the introduction but later on, and even then they are wrapped in sweet syrup with the hope that their deviation will not harm the book. At times this even makes a positive contribution to the reputation of the book. Especially if it contains very few innovations, for then such ideas can be like a sharp spice that upgrades cooking that is generally bland. The problem begins when most of the ideas in the book are liable to challenge the opinions of the reader, and then there is no way to camouflage this fact, and this is the case with this book. The situation is particularly bad when the book deals with art and design, which for most people is an emotional rather than a rational issue. For today everything, including nothing, can be presented as a work of art, and there is no opinion that is not ostensibly
legitimate with regard to art. Therefore the view that negates this anarchy will not be happily received. As a result of the chaos reigning in art, everyone feels that his/her personal opinion with regard to art is no less relevant than the opinion of a theoretician who has spent decades studying this subject.

On this matter I will briefly note that the validity of an idea is contingent on the width and depth of the context in which the idea is rooted. The more personal or emotional the idea, the more it lacks validity from a cultural point of view, although it can be extremely relevant to the person who believes in it. In contrast, the more the opinion is anchored in a wider, deeper and more coherent cultural context, the better the chance that it will be adequate. Moreover, readers who see art as a completely subjective matter, and these are the majority of art lovers today, are not even committed to the criterion of validity. Infinite times have I heard the fallacious sentence: "For me, art is...such and such," as if art is a completely personal matter. Is it even imaginable that someone would dare say the same about other areas of culture such as philosophy, science, literature, poetry, etc. without being taken for a fool? On the other hand, those who consider that art is a purely subjective matter need to reach the inevitable conclusion that art is not a component of culture. Of course they would not agree to this, for then art cannot serve to define their personal identity as "artists." Similarly, the economic value and the justification of an overblown ego that art supplies them with will vanish. In our day many do not absorb the fact that culture does not deal with subjective matters, but only with spiritual or cognitive assets that have importance for all, and everything else sooner or later falls into the trash heap of culture. Actually, the very fact that the execution and understanding of art is perceived today as a subjective matter is in itself evidence that something very fundamental is flawed in modern art.

I fear that the present book is indeed overflowing with controversial ideas, and therefore in these introductory words I would like to note that this book is not intended for those who are satisfied with the state of art today, nor for those who are pleased with the complete confusion that exists between art and design. On the other hand, this book is definitely intended for those of the readers who possess some measure of doubt as to whether indeed art today is as important a cultural achievement as it is presented by the art establishment. Evidently the book is especially intended for all those who ponder the question whether art and design are one and the same, or not, and especially for students and lecturers in these two fields. For my part, I can promise the reader that not one idea in this book was written offhand, but every idea presented here has been weighed infinite times in light of study, research and deliberations over
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decades. In return I would like to hope that the reader will not rush to judge these ideas based on his/her emotional reactions, but rather based on consideration that is as reasonable, educated and coherent as possible.

Probably there are readers who would like to bring counter arguments to the ideas presented here, based on facts of one kind or another. I would like to remind these that a "fact" is a problematic matter, immeasurably more elusive than is generally thought. For facts do not have autonomous existence, but are the fruit of interpretation of a certain state of affairs in light of theories, beliefs, feelings, motivations, etc. In fact, a considerable part of the history of culture and of science in particular was generated by "facts" that dissolved the moment the theories on which these facts were based were refuted. True, it is a fact that an infinite number of works are presented in the best museums as works of art even though after reading this book I hope that the majority of readers will become convinced that these works are not works of art at all, but products of design of one kind or another. In the world of science theories are checked very precisely and for a long time in hope of refuting them to reach a more coherent theory, and perhaps also to win the Nobel Prize. In contrast, in the world of art, penny philosophy such as the theories of the fathers of modernism are taught and pile up and nobody attempts to seriously check them out or refute them, even though they have actually brought about the ruin of art as an area of culture. As we will see below, the main reason for the confusion between art and non-art as well as the confusion between art and design, which is a special case of the first confusion, stem from the fact that the fathers of modernism and the artists who adopted their ways did not at all understand the concept of abstraction. Therefore they confused the abstract with the concrete, art with non-art, and confused art and design. Some of the readers will claim that there is no room for comparison between art and science. To these I would like to say that as long as there was real art, that is, figurative art, there was a great deal in common between art and science, and at their deepest layers. Only since the beginning of the age of modernism is there no common denominator for art and science, but rather they are complete opposites in a great many parameters. In another essay I have shown that from a structural point of view there is a very deep common denominator between the reading of footprints about four million years ago, prehistoric art and modern science, but there is no significant common denominator between these and between that which is called "abstract art" (Avital, 1998a). In my opinion, this fact ought already to awaken serious doubts with regard to the question whether modern art is art at all, and if it is a true component of culture. The concepts "modern art" and "modernism" in art are fairly vague concepts, and so in order to reduce
misunderstanding. I will note that in the context of this book, by the terms "modern art" and "modernism" I refer to the totality of works in painting and sculpture that are called "abstract works" or all forms of visual non-figurative works.

I am old enough to know that when there is a conflict between rational understanding and an emotional relationship to things, people are not always capable of changing their feelings, even though their brains say the opposite of what they feel. This situation can be respected when the matter is personal, but when the matter is related to culture there is no room for such an approach, and in fact it attests that the speaker does not really understand the subject. Thus for example an art historian who read my first book told me in these words: "I am afraid you are right but my heart can't take it." Another historian told me in a despairing voice: "What you write is completely logical, but what do you expect me to do with everything I've done all my life? To throw it in the trash?" The poor fellow continued teaching students perceptions that he knew to be incorrect, only from his need to continue surviving. I have empathy for these people, who for emotional or existential reasons are incapable of parting from perceptions they know to be incorrect. But fortunately there were also those who reacted completely differently. There was the Dean of the Faculty of Art and Design who resigned from the university after he realized that for dozens of years he had taught nonsense, but he was too old to learn everything anew. His wife scolded me for because of me they lost part of their pension funds, and I did not tell her that because of those ideas my pension is far more tiny. And there was the head of the Department of Art History with whom I had a harsh conflict of opinion while I still taught at the Hebrew University of Jerusalem. One day he invited me into his office and told me that he had failed two of my students in their MA exams because they identified with my ideas. He failed them so that they would not be able to continue to a doctorate, in order to avoid the possibility of having "another two Avitals" in his department, as he put it. The next day I resigned from the Hebrew University of Jerusalem, for I could not bear the thought that young people would risk their future because of my opinions. But thirteen years later that same department head telephoned me and asked to visit me at home. I was amazed, but I agreed. After he sat down in the armchair opposite me, he said to me: "I had to come and tell you to your face that you were right. I am leaving the Department of Art History." And indeed he left this field and went over to another field. And there was an art dealer with courage and exceptional integrity who sold modern art, and closed down his business after he understood that the things he sold were not art at all. In general, my impression is that in recent years there may be the
beginning of movement in the direction of wisdom at least among part of the art world. I have no doubt that the great avalanche is still to come, sooner or later, and every great avalanche begins with imperceptible movements. This process is not easy and not simple, for it is not sufficient to present strong claims in order to refute a view that is rooted in some field, but by nature sooner or later people gain understanding. This is true even in science, which is an immeasurably more rational field and immeasurably more critical than art. True, science itself is certainly rational, but it exists in the hands of scientists or people who are also motivated by irrational motives. In his classic book Kuhn (1970) claimed that a new paradigm is not accepted because scientists realize it is better than the old one, but because scientists that were committed to the previous paradigm die eventually, and only then is the road open to acceptance of the new paradigm. Thus for instance here is an example from our own time. In 1982 Dan Shechtman, a scientist from the Technion in Haifa, Israel, discovered a new set of materials that had previously been unknown, and that he named quasicrystals. For about three decades he paid dearly for this discovery, until he received the Nobel Prize for chemistry for that same discovery: "People just laughed at me," Shechtman recalled in an interview this year with Israeli newspaper Haaretz, noting how Linus Pauling,... mounted a frightening "crusade" against him, saying: "There is no such thing as quasicrystals, only quasi-scientists." (Lannin and Ek, 2011). Then the head of his research team asked Shechtman to leave the team for "bringing disgrace" on the team.

Even in science, belief in a certain idea may blind the observer to another possibility, especially if it contradicts his/her belief. In contrast to science, which does not exist without a paradigm, the world of art continues to exist, so to speak, even though it has lost the only paradigm it had: figurative art. Therefore this field today has unlimited tolerance for a jumble of possibilities and whims none of which threatens the existence of another. But when it is claimed that the totality of “abstract art” is not art at all, but at best trivial design, then except for a very few, the majority close their eyes and seal their ears. Tolerance of such a claim is nonexistent, for it threatens the identities of too many people, and threatens economic and other investments at a colossal scale. However, the change will have to come or there will be no art. After a hundred years of stagnation and degeneration, perhaps it is time for the art world to dare to reexamine the axioms of modernism and its true contribution, if any, to culture. Without reexamination of modernism art will be unable to progress beyond the current stagnation and move towards more promising horizons.
Let it immediately be said that this book does not deal with any specific schools of art or design, nor with any specific artists or designers, but rather with a far more basic issue. An investigation that is as thorough as possible of the differences between art and design is a necessary condition for construction of a solid theoretical basis that will enable a clear distinction between these two areas that today are assimilated one into the other to the detraction of both. This confusion exists not only among the general public, but also among artists, designers, curators and collectors in both fields. This confusion is also well entrenched in academies that teach these fields, while lacking the ability to clearly distinguish between them, and it exists in museums and galleries of art and design that have no clear criteria to aid them in distinguishing between products of the two fields. Therefore even in the best museums one can see objects of design in the art departments and vice versa. What does this say about the curators and museum directors? That they are incapable of distinguishing between art and design, or that they believe there is no difference between the two areas. This situation creates considerable embarrassment, not only among lovers of art and design, but also among artists and designers. This embarrassment is particularly evident among students in both these areas, whose teachers in fact do not have the necessary theoretical tools to clearly distinguish between art and design.

When creating a synthesis between two fields, as is often the case in sciences, the result is creation of a new area, or at least a new layer of knowledge that extracts maximum benefit and insights from both of the fields. For example, astrophysics employs knowledge from the fields of physics and chemistry in order to achieve a deeper understanding of the characteristics of heavenly bodies. The understanding achieved by syntheses of this sort create a far more profound understanding than can be achieved with the help of either of the two fields separately. Syntheses of this sort create new layers of understanding, new viewpoints, and create enrichment of knowledge and of culture. In contrast, when one confuses art and design and creates a muddle of both, one does not create a synthesis but rather a reduction of art to design. A reduction of this kind does not provide us with new layers of knowledge or new insights, but exactly the opposite: all that remains of art is color, form and object, just as with design. Cultural reduction leads to loss of past achievements, creates impoverishment of the two fields and retreat to a stage that was simpler in terms of culture. Therefore, for the benefit of both fields and of those who work in them, it would be best to devote every effort to finding the way to build clear lines of demarcation between them. The confusion between art and design is a special case of the confusion between art and nonart, and so
a significant part of this introductory chapter will be dedicated to the presentation of an extremely brief overview of this issue, which I have discussed extensively and fairly thoroughly in my previous book (Avital, 2003). Obviously this introduction is not intended to provide a convincing answer as to the distinction between art and design, but only to arouse the reader’s curiosity and to challenge him/her in approaching the following chapters, where far more sophisticated theoretical tools will be presented, that will clearly sketch the difference and the separation between these two areas.

Throughout cultural history there has never been a clear distinction drawn between art and design. As long as art functioned in the framework of the figurative conception, this lack of distinction did not impair functioning of the two areas. However, from the start of the 20th century, when the figurative conception in art disintegrated, the demarcation lines between the two areas were totally blurred to the detriment of both, and they were absorbed one into the other. Hence, the confusion and anarchy pervading art in the course of the last century is also the main reason for the current confusion between art and design. All products of design are either objects, concrete or virtual, or compositions of color and form, with or without pictorial and/or linguistic symbols. Because modern art has reduced art to composition of color and form and to objects, the lines of demarcation between art and design have become totally blurred. The aim of this book is to eliminate this confusion as far as possible by pointing out the roots of the confusion and also to present a horde of contradistinctions between the two domains. Discussions of the relationship between art and design usually argue either that design is a kind of art and is therefore not distinct from it, or else that design is fundamentally distinct from art, making their linkage irrelevant. The problem with these two approaches is that they do not propose any solid theoretical justification for the attribution of design to art, nor for its complete differentiation from art. The uniqueness of this essay lies in the attempt to provide as solid a theoretical justification as possible for the differentiation of design from art.

1.2 Modernism: The main source of the confusion between art and design

The confusion prevalent today between art and design results from many factors. Some of these are prehistoric and some historic, and they will be
discussed in Chapters 3 and 5. However, at this stage it is already possible to note that the most dominant factor in the confusion between the two areas in the past hundred years is the total chaos reigning in modern art. The central characteristic of this art is the reduction of art to its perceptual components: color and form. Reductionism is the definition of the whole based on one of its parts. What is an elephant? A large fat animal. What is a hot chick? A girl whose measurements are 90-60-90 cm. What is a human or subject? The responses of the organism to stimuli. What is thought? Electrical activity in the brain. What is art? Composition of color and form. However according to reductionist logic, anything we perceive with our senses is a work of art; the moon is a tennis ball because the moon is round; a cello or viola da gamba might quality as Miss Universe; human is a robotic mechanism and Einstein was a total idiot because the electrical activity in his brain was negligible compared to that of a power station. Reductionism is the result of confusion between necessary and sufficient conditions. Thus, for example, being round is a necessary but not a sufficient condition for something to constitute a tennis ball. Reductionism of the whole to one of its parts is the basis of behaviorism in all its incarnations, whether in psychology, art or any other branch of endeavor. Clever psychologists blush when reminded that until about four decades ago behaviorism was their central concept, while at the same time, in art and in aesthetics, people have not even digested the fact that modernism is a reductionist or behaviorist art with all that this signifies. They do not understand that this pseudo art is built entirely on a complete misunderstanding of art and culture, and in particular on commercial and publicity manipulations. Indeed, color and form may be necessary conditions for works of visual art but they are certainly not sufficient. However, such niceties of thought have never disturbed modernist artists, and even less so the art dealers and directors of galleries and museums of modern art. As long as art functioned as a visual language in the framework of the figurative paradigm, the lack of distinction between art and design did not interfere with the function and existence of each of the two fields. However, from the moment that visual art ceased to function as a visual language, at the start of the 20th century, and became in fact trivial graphic design, or industrial design bereft of any functional value, the border between art and design was totally erased. In brief: Modernism performed a reduction of a symbol-system to objects or arbitrary compositions of form and color, and by so doing, it performed a reduction of art to trivial graphic design. Those most responsible for the destruction and confusion are the founders of modern art, in particular Kandinsky, Mondrian and Duchamp. Possibly Kandinsky was the first artist to abandon the outlook of the Impressionists and Expressionists, who used
symbols that represented the outer, visible world in order to express their inner world. He and Mondrian attempted to express the inner world without external content, but failed completely. The main reason for this failure was that no system of visual symbols exists capable of representing abstract content. That which is really abstract is not visible, and that which is visible is not abstract. They used color and form as a completely arbitrary code for the expression of abstract content, and gave this a theoretical justification lacking any scientific or philosophical basis. The result was a work of meaningless stains which anyone could interpret at will, similar to the stains used in a Rorschach test. Most of the other artists in the 20th century followed blindfolded in their footsteps, without taking any notice of the fact that in doing so, they had in fact left the field of art and passed on to the shallowest area of design. These artists had good intentions, but due to the lack of any theoretical understanding of art, to ignorance and to real or assumed innocence, they passed from the world of art to the world of graphic design and the world of objects, but continued to believe they were operating in the world of art.

Presumably the fathers of modernism did not at all understand the significance and the implications of erasure of a system of figurative symbols, and so it is worth reminding the reader of some of the characteristics of figurative art, which were lost in modernism by its reduction to design. The most basic principle of the figurative paradigm from its origin about forty thousand years ago and up to this day is construction of representations of things by means of representation of the graphic common denominator between those things. In other words, representation presents the symmetry-asymmetry that is common to some set of things whether real or fictitious. Thanks to this characteristic paintings, figurines and figurative sculptures are readable beyond space and time even tens of thousands of years after they were created. Similarly, because of this characteristic a figurative painting or statue connects certain things and separates them from other things. Therefore a figurative painting or sculpture is also a means of classification, similar to words in language. This is true of the prehistoric drawing of a bull presented by a contour characteristic of that type of bull, it is also true of Botticelli’s Primavera, whether there was such a character or not, and it is true of every painting that describes a unicorn even though there is no such creature. A figurative picture that describes a fictitious entity is a kind of hypothesis that tells us that if a unicorn should be found, its visual characteristics will be similar to those that we see in the picture. A figurative picture is a visual generalization just as every image that we have in our minds is a visual generalization, and as every word is a linguistic generalization and every formula is a formal
generalization. That is, all branches of culture are valuable for the existence of humanity mainly because they all propose different ways to create groupings, classification and hierarchies of the things in our world, whether real, hypothetical or fictitious. We organize our world view with the help of a system of pictorial, linguistic, and formal symbols or their combinations just as is done in science. All symbol systems of all kinds are systems of generalizations, without which we would not be able to construct culture, nor an orderly world view. There is no culture without a symbol system, for it is symbols that enable us to pack the infinity of multiplicities in finite packages of information. Symbols of all kinds are what enable us to construct a bridge between the infinite multiplicity of things and between our finite noesis, our knowledge. The totality of symbols that we have creates a second-order reality, and that is what lends meaning and existence to the world of objects as we know it in the phenomenal reality, which is first-order reality. In short, there is no culture without symbols, and therefore it is impossible to exaggerate the decisive importance of a symbol system for the existence of human culture, and so it is clear that modernism has led to the destruction of art and the impoverishment of culture. Instead of a public and universal visual language, modernism has put forward a jumble of idiosyncrasies and whims lacking any artistic or cultural significance. They did not understand that culture does not deal with private matters unless they have great importance for all. In our day there is confusion between subjectivism and individualism. Genius is revealed when the point of view of a certain individual becomes the point of view of everyone, and this is the deepest significance of individualism. In contrast, subjectivism by its nature has no impact on culture. Thus, for example, ever since publication of Kant’s Critique of Pure Reason in 1781, it is clear that there is no absolute reality, but rather the reality that we perceive is the fruit of our interpretation in light of certain organizational patterns of the mind. In this case, the viewpoint of the individual Emanuel Kant became the viewpoint of everyone, or at least of those who have some measure of education. After publication of Einstein’s theory of relativity in its two stages (1905, 1915), the understanding of reality or of the fundamental concepts of physics – time, space, mass and energy – changed completely. After seeing the paintings of van Gogh, it is impossible to view nature in the same way that we have seen it before. Has humanity adopted the viewpoint of any modern artist? It is not surprising that there is no such artist, because for the last hundred years artists have not been born but rather produced. There is almost no person who cannot be turned into a famous “artist,” and all that is necessary is massive investment in advertising over time and well-greased public relations. It is true that important people are at times also famous. But if a person is famous this does
not imply that he\she is of some importance. From this point of view, there is no modern “artist” who is really important, because they have no impact on culture. Not surprisingly, the only artist of the 20\textsuperscript{th} century who has important impact on our perception is Magritte, but he is not an “abstract” artist, but a truly abstract artist: a figurative artist who sings a song of mourning for figurative art in a surrealist tune.

Actually, the relationship between figurative and modern art is analogous to the relationship between a cow and a hamburger (see figures 1.1-1.4). A figurative painting and a cow are both systems. A figurative painting is constructed of a system of pictorial symbols which has layering and an inherent connection between all its components. A cow is a biological system that is immeasurably more complex than any pictorial system. It has enormous layering, which includes a great many subsystems that function together to create the living cow. While the pictorial system is static, the biological system is dynamic for as long as the cow is alive. When a cow is slaughtered and ground up one has a hamburger. It contains the same materials that were in the cow, but its chaotic order is the result of breakage of all the systemic connections which were once the living cow. Similarly, "abstract" painting which has been created from a painting by Rembrandt (fig. 1.3 and 1.4) smearing the original painting with the help of Photoshop contains the same colors as the original but it is a pictorial "hamburger;" it is the result of breakage of all the systemic connections that were in Rembrandt’s figurative painting. Therefore a hamburger is not a cow, and "abstract painting" is neither a painting nor a work of art.
1.3. Top right, Rembrandt van Rijn. St. Peter in Prison (St. Peter Kneeling), 1631. Oil on panel, 59 x 48 cm. Gift of Michael and Judy Steinhardt, New York to AFIM, The Israel Museum Collection B01.0148. Photo © The Israel Museum, Jerusalem by Avshalom Avital.

The relation between a cow and hamburger is analogous to the relation between a figurative painting and 'abstract art'. In both cases, the hamburger and the 'abstract painting' are the consequence of the destruction of the systemic structure of the cow and of Rembrandt's painting.

1.4. Rembrandt gone "abstract". Done by the author using Photoshop brush arbitrarily in order to transform Rembrandt's painting into an "abstract" or pictorial hamburger. One hardly needs any artistic or other talent to do that.

1.2. Bottom left. Fresh raw minced beef meat on red tray isolated over white background. Copyright: Greg Gerber. © 123RF Stock Photo 22513211.
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FROM THIS FREE SAMPLE
List of illustrations per chapter

Illustrations in chapter one

1.1. Top left. White with brown cow on autumn green meadow. Copyright: Darya Petrenko. © 123RF Stock Photo 16657346.

1.2. Bottom left. Fresh raw minced beef meat on red tray isolated over white background. Copyright: Greg Gerber. © 123RF Stock Photo 22513211.

1.3. Top right, Rembrandt van Rijn. St. Peter in Prison (St. Peter Kneeling), 1631. Oil on panel, 59 x 48 cm. Gift of Michael and Judy Steinhardt, New York to AFIM, The Israel Museum Collection B01.0148. Photo © The Israel Museum, Jerusalem by Avshalom Avital.

1.4. Rembrandt gone "abstract". Done by the author using Photoshop brush arbitrarily in order to transform Rembrandt's painting into an "abstract" or pictorial hamburger. One hardly needs any artistic or other talent to do that.


1.6. Title: Untitled - First Abstraction, 1910 (pen, ink & w/c on paper)
   Creator: Kandinsky, Wassily (1866-1944)
   Nationality: Russian
   Location: Musee National d'Art Moderne, Centre Pompidou, Paris, France
   Medium: pen, ink and watercolour on paper.
   Date: 1910 (C20th)
   Dimensions: 49x64 cms


1.10 Lavender Mist: Number 1, 1950. (oil, enamel & aluminium paint on canvas. 221x299.7 cms), Pollock, Jackson (1912-56) / National Gallery of Art, Washington DC, USA / Bridgeman Images.

1.11. It is true that eggs are normally oval and off-white. But if something is oval and off-white, it is not necessarily an egg. Actually of all the eggs in this basket only one is a natural egg and all the rest are made of stone. We are easily mistaken because we reduce the egg to only two of its numerous properties and disregard the rest. Photographer: Avshalom Avital. © The author.

1.12. It is true that some Irish lasses have flowing red tresses; but if one has flowing red tresses it does not entail that one is an Irish lass. See image 1.16. Copyright: Veronika Petrova. © 123RF Stock Photo 32866649.


1.15. A plant disguised as stone. Aizoaceae Lithops Aucampiae. Lithops, called also Flowering stones, pebble plants or living stones. Copyright: Philip Bird. © 123RF Stock Photo 22150390.

1.16. Right. Red Irish setter dog. Copyright: Veronika Petrova © 123RF Stock Photo 32866649

1.17. Top. A well camouflaged insect. Spotted praying mantis, on leaves in Tamil Nadu, South India. Copyright: petervick167. © 123 RF Stock Photo 20855579.


1.19. Side view of female kudu antelope with bird over back. Due to its coloring this antelope effectively blends into the background especially if observed from a distance. Copyright: Francisco De Casa Gonzalez. © 123RF Stock Photo 28026686.

1.20. Lion in Tanzania national park. Copyright: mhgallery © 123RF Stock Photo 26214108. For both the antelope and the lion camouflage is crucial but for opposite reasons. For the antelope camouflage is a means of hiding from the carnivores. For the predators camouflage is necessary in order to take its prey by surprise; otherwise chances for a kill become slim and risky for the predator.

1.21. Top. One of these two leaves is a butterfly.

1.22. Bottom. The dark "leaf" unfolds into splendid wings. © Ofer Raviv. The two photos are reproduced here by kind permission of Ofer Raviv who was my student.


1.25. Cuttlefish changing color. These pictures of the same individual were taken only a few seconds apart. This broadclub cuttlefish (Sepia latimanus) can go from camouflage tans and browns (top) to yellow with dark highlights (bottom) in less than a second. Cuttlefish, especially Sepia apama, can change not only the colors, form and textures of their bodies, they can even change their bodies instantaneously to look like females of their kind so they can join the 'harem' of the alpha male and mate with the females when the big macho is not watching (Ebert, 2005). They are rightly called the chameleons of sea but they are far more sophisticated at disguise and camouflage than any chameleon. © Nick Hobgood, Wikipedia, Creative Commons.


1.29. Anthony Caro (b. 1924), Back Cover Flat (1974), Steel, rusted & varnished, 71 x 98 x 30"/180.5 x 249 x 76cm. Copyright is Barford Sculptures Ltd. Photo credit is to Valerie Burton.


1.31. Details from the background of fig. 1.30.


1.33. Details from the background of fig. 1.32. This scribble is hardly distinguishable from some works of Twombly or millions of those done by students during boring lectures.

1.34. Examples of "monochrome:" This is a method of coloring cloth, furniture, walls and doors, not paintings. It lacks all the characteristics of painting except the trivial fact that it has one color. Similarly, if you have a sack of concrete that does not mean you have a house. Therefore all cases of monochrome are graphic design of the poorest sort and not art.
1.35. A Chinese tea set which is clearly not functional. Such dishes were made for the sake of amusement and irony.
Photographer: Avshalom Avital. © The Author.
I am grateful to Mr. Zhao Zheng Xu and his wife, who gave me this tea set in my visit to Xian in October, 2011.

Photographer: isifoto. ©iStockphoto #4707882

1.37. Nude woman (*Venus of Willendorf*), from Willendorf, Austria, ca. 28,000-25,000 BCE. Limestone, 4 1/4” high. Naturhistorisches Museum, Vienna. De Agostini Picture Library / E. Lessing / The Bridgeman Art Library


1.39. (Left) the number "2".

1.40. (Right) Yellow lemons hanging on tree. Copyright: InÃicio Pires. ©123RF Stock Photo. 12980837.


1.42. "Broken Chair" monument in the "Place des Nations Unies" square in Geneva, Switzerland. Broken Chair is a monumental sculpture in wood by the Swiss artist Daniel Berset, constructed by the carpenter Louis Genève. Copyright: Victor Pelaez Torres ©123RF Stock Photo. 10780936

1.43. Alice in wonderland looking into a dollhouse.
Copyright: anyka. ©123RF Stock Photo. 9492498.

**Illustrations in Chapter two**

2.1. Hand-tools are extensions of hands. Design originated in tool making for *instrumental* functions. A hand-tool is an extension of the hand and a specific case of body tools, all of which are extensions of some organ of our body. Photo ©: the author. Photographer: Avshalom Avital.

2.2. Levels of reality. I am indebted to my ex-student Yael Horowitz for making this beautiful illustration of levels.
2.3. Dissectors: Handaxe (Top), Spheroid (Left), Pick (Right), Chopper (Bottom) Ubeidiya, Lower Palaeolithic, 1,500,000 y.o. Photo. © The Israel Museum, Jerusalem.


2.5. Ax chopping wood on chopping block. Copyright: Deyan Georgiev. © 123RF Stock Photo 23158516.

2.6. A saw is sawing through the wooden board. Copyright: Athidej Nimmanhaemin.© 123RF Stock Photo 13805911.

2.7. Funny young girl cutting her hair with scissors. Copyright: Igor Dutina, 123 ©RF Stock Photo 6617509.

2.8. An assortment of hand-tools. All hand-tools are various extensions of hand. Copyright: citalliance. © 123RF Stock Photo. 12352911

2.9. Close up of a pregnant woman’s stomach, isolated on black background. Copyright: Gary Steele. © 123RF Stock Photo 8131369.

2.10. Until a few decades ago, Bedouins at the Negev of Israel used the camel’s stomach as a container for water. The photo is reproduced here by kind permission of Dr. Victor Frostig. © Dr. Victor Frostig

2.11. Big bottle for cooler. Copyright: Polina Ryazantseva © 123RF Stock Photo. 13750511


2.13. Bottom. Set of sequence sizing of green ceramic bowls. This set of bowels is concrete example of recursion, nesting and self-embedding or hierarchy. Copyright: Worakitti Saichol. © 123RF Stock Photo 19786901


2.15. Top. Grinding stone with fresh herbs Copyright: jaggat. © 123RF Stock Photo 5695474

2.16. Bottom. Pureed strawberries in blender Copyright: Michael Gray. © 123RF Stock Photo 12783368
2.17. Katsan, Namibia - April 26: Bushmen in hunt in the Katsan place on April 26, 2008, Namibia. All clothes are extensions of skin: Early version. Copyright: Alexander Mitrofanov. © 123RF Stock Photo. 8945156

2.18. Collection of females dress isolated on white Copyright: alexkalina. © 123RF Stock Photo. 4701969

2.19. Professional workers, businessman, cook, pilot, doctor, builders. Despite the vast differences of the semiotic loading of these costumes, eventually they are all body tools and therefore fashion design is design, not art. Copyright: Andriy Popov. © 123RF Stock Photo. 17738995

2.20. Odessa, Ukraine - May 9 Parade Celebrating Victory Day in the Second World War 1941-1945 Veterans and soldiers May 9, 2012 in Odessa, Ukraine. Copyright: agusyonok. © 123RF Stock Photo 26643979

2.21. Right. Detail of the head and upper torso portions of a silk burqa. © Steve Evans from India and USA Creative Commons.

2.22. Bottom. Woman lying on the sand at the ocean coast. Copyright: Ivan Mikhailov © 123RF Stock Photo 11368219.

2.23. The village Zumaglia near Millan. © F. Ceragioli. Wikimedia Commons.


2.25. Stone Age hut of reeds at the lake. © Tt | Dreamstime.com

2.26. A beautiful and colorful African round Ndebele hut in South Africa. In the Ndebele tribe only the women decorate their houses. Copyright: Anke Van Wyk. © 123RF Stock Photo. 933016

2.27. Top. Medieval dry stone hut in north of Catalonia Spain. ©123RF Stock Photo. 13472545.

2.28. Middle. Upscale single family house on Head Island, South Carolina. Photographer: Jim Pruitt. © 123RF Stock Photo 11379619


2.31. Bottom. Interior architecture design of church, Italy. Copyright: kubais. ©123RF Stock Photo. 10657747.
2.32. Brain-tools are all symbols systems; visual, verbal or formal. They are the *precondition* of body tools. In a larger sense, they are the indispensable condition of culture and all of its domains including design and technology.


2.35 Illustration of hand ax.
   Copyright: Denis Barbulat © 123RF Stock Photo 10397557

Illustrations in Chapter three

3.1. Front cover of Edible Art: Forty-Eight Garnishes for the Professional by David Paul Larousse. Published by John Wiley & Sons, INC. 1986. This photo is reproduced here by kind permission of John Wiley & Sons, INC. © John Wiley & Sons, INC.

   Photo: Avshalom Avital.

3.3. Replica of The Spear Thrower of La Madeleine.
   © Photo and caption are reproduced here by kind permission of Occoquan Paleotechnics LLC,

3.4. Perforated baton with low relief horse, Late Magdalenian, about 12,500 years old, from the rockshelter of La Madeleine, Dordogne, France. Made from reindeer antler.
   © Author: johnbod, Creative Commons.

3.5. Mortuary temple of Queen Hatshepsut at Dayr al-Baḥri, Thebes, Egypt, near Valley of the Kings. Designed and built by Senenmut, the steward and architect of Queen Hatshepsut about 3500 years ago. This is one of the earliest cases in which we know the name of the architect who designed a monumental building.
   Photographer: Martin Molcan. © 123RF Stock Photo. 17666387
Copyright: Thomas Sztanek. © 123RF Stock Photo 6751295.

3.7. Bottom. 3000 year old pottery from the town of Ancient Thira on the island of Santorini Greece. 
Copyright: Brenda Kean. © 123RF Stock Photo 13946398

3.8. Top. Engraved ochre from Blombos Cave Project, c. 75 - 80,000 year old. 
© Chris Henshilwood. This image is reproduced here by kind permission of The Center for Development Studies, University of Bergen.

3.9. Prehistoric carved lion, Vogelherd Cave, Germany. The figurine is engraved with very similar geometric crosshatches found in Blombos and dated at 30,000-36,000 years. © Credit: Javier Trueba/MSF/SCIENCE PHOTO LIBRARY

3.10. Engravings made on a Pseudodon fossil whose origin is in Trinil (Java, Indonesia). 
Photographer: Wim Lustenhouwer 
Images 3.10 and 3.11 are reproduced here by kind permission of Josephine Joordens, VU University Amsterdam.

3.11. Bottom. Detail of 3.10
Photographer: Wim Lustenhouwer.

Copyright: Andreas Berheide. © 123RF Stock Photo 10825085

3.13. Any circle is a specific case of the formula $P=2\pi R$, hence it is a particular, not a universal. As such it is design, not art.

Both graphics 3.10 and 3.11 by Slavik Jablan were inspired by the possibility of using a very simple modular tile: a square with a set of diagonal strips or the same square designed as a Truchet tile. Such a module (called by the author "Op-tile") has been used in art from prehistoric times (Paleolithic, Mezin, Ukraine, 23 000 B.C.), as well as in Op-art. The graphic "Op" is an exercise on this theme, based on the use of complementary colors and transparency effect obtained in this way. "Turn" is a modular black-white puzzle based on Op-tile, processed in Paint Shop Pro using geometrical effects (Twirl). 
© Slavik Jablan
Slavik Jablan was a professor of mathematics at ICT College of Vocational Studies (Belgrade, Serbia) and the editor of the online journal Visual Mathematics, (VISMATH). Prof. Jablan was a dear friend and colleague and he granted me the permission to reproduce his two works in this book shortly before he passed away.
© Slavik Jablan

3.16. Colored figure from fractals.
Copyright: Artyom Rudenko. © 123RF Stock Photo 6428405.

3.17. Leonardo Design manufactures wrought iron furniture, lighting and accessories. The versatility of each design encourages endless placements including formal, informal and outdoor furniture. We always try to be innovative, creating new forms, using new materials and discovering new technologies.
http://www.leonardodesign.co.za/contact.htm
© The image is reproduced here by kind permission of Leonardo Design.

3.18. A pair of Clovis points found by Dick Daugherty measuring about nine inches long near East Wenatchee, and dated ca. 11,000 years BP. "They are the largest ever found, and not of the common chert but of translucent chalcedony – true works of art". (Mehringer, 1988) (my italics.) Photographer: Warren Morgan. © National Geographic.

3.19. The Doors of Paradise in Battistero di San Giovanni, Duomo Cathedral, Florence, Italy. Photographer: Keith Levit, ©123rf Stock Photo 180665

3.20. Detail of the Doors of Paradise in Battistero di San Giovanni, Duomo Cathedral, Florence, Italy.
Photographer: Kiril Stanchev, ©123rf Stock Photo 13255059

Copyright: fefo. © 123RF Stock Photo 7086439.

3.22. Pierre Armand, Avalanch (1990), Tel-Aviv University campus.
© Yair Talmor\Wikimedia Commons.
The image is reproduced here by kind permission of Tel-Aviv University Gallery.


3.25. Description: Plastik „Balancing Tools” des Bildhauers Claes Oldenburg am Vitra Design Museum. Date 22 October 2006. Source Own work. Author --Wladyslaw Disk © Wikimedia Creative Commons.

**Illustrations in Chapter four**

4.1. Natural design in the author’s garden Photographed by the author.

4.2. Design by birds. Baya Weaver nests. Ploceus philippinus Weaver Bird/Finch, Tempua (Malay). Photographer: Yogesh More. © 123RF Stock Photo. 13727154,


4.4. Design by bees: Bees work on honeycombs. Photographer- Dmytro Smaglov: ©123RF Stock Photo. 14163857

4.5. Top, 4.6 Bottom. One of these two paintings was done by an animal and the other by a human "artist". Can you honestly tell which is which? The solution is on the next page.

4.5. This work was done by Babe, an elephant at the Niabi Zoo, Illinois. This work is reproduced here by kind permission of the Niabi Zoo.

4.6. This work was done by a human. Abstract hand drawn background. Copyright: Maria Dubova. © 123RF Stock Photo 12693503.
4.7. Female figurine from Berekhat Ram, Golan Heights, Volcanic material 3.5 x 2.5 x 2.1 cm., Lower Paleolithic 233,000 years ago, and one of the oldest figurines ever found so far. Discovered by Prof. Naama Goren-Inbar of The Hebrew University of Jerusalem. Israel Antiquities Authority Accession number: IAA 1993-492. © The Israel Museum, Jerusalem

4.8. Top. Tulip Fields at Sassenheim, near Leiden, 1886 (oil on canvas), Monet, Claude (1840-1926) / Sterling & Francine Clark Art Institute, Williamstown, USA / The Bridgeman Art Library.


4.12. Mother and Child, c.1869 (oil on canvas), Merle, Hugues (1823-81) © Sterling & Francine Clark Art Institute, Williamstown, Massachusetts, USA / The Bridgeman Art Library.

Art is implicative. Merle’s painting is about compassion and nourishment.


4.16. Old man. Photographer: Laurin Rinder © 123RF Stock Photo. 11141777

4.17. Pair of old boots isolated on the white background. Photographer: Roman Ivaschenko. © 123RF Stock -8805776

4.18. Old school car calls the 1917 the first production car built in Japan. Photographer: Ruzanna Arutyunyan. © 123RF Stock Photo. 7454131
   Source/Photographer.http://cgfa.sunsite.dk
   Wikimedia Commons, Public domain.

4.20. Bottom. Han van Meegeren’s forgery of The Procuress by Dirck van Baburen.
   Source: Courtauld Gallery. Wikimedia Commons, Public domain.

   Photographer: Rainer Plendl. © 123RF Stock Photo 8406198


4.23. Bottle opener. Photographer: Cristi Love © 123RF Stock Photo Ltd 14926621

4.24. Top. The project of residential house. 3D image.
   Photographer: Valerijs Kostreckis. © 123RF Stock Photo Ltd 12638686.

   Photographer: makingfaces. © 123RF Stock Photo Ltd. 12903253

4.26. Graphical representation of self-embedding: In the cognitive world the depth of self-embedding or recursive inclusion relations depends only on our capacity of abstraction. This depth determines the stratification of our thinking and our perception of reality. CODIS- stand for the complementarity of connectivity-disconnectivity.
   I am indebted to my former student Ziv Rotem-Bar who did for me this beautiful illustration.

4.27. Self-embedding of plastic bowls.
   © StockFreeImages.com 6281389

4.28. Graphical illustration of metaphor by the author.

   ©123RF Stock Photo Ltd. 12341697.

   The Explanation, 1952 (oil on canvas).

   Photographer: Joel Rapoport
4.32. Girl with a Pearl Earring, c.1665-6 (oil on canvas), Vermeer, Jan (Johannes) (1632-75) / Mauritshuis, The Hague, The Netherlands / The Bridgeman Art Library.

4.33. Traffic street road signs clip. All-free-download.com

4.34. Flags. All-free-download.com

   Copyright: Maxim Kazmi. ©123RF Stock Photo Ltd. 9351257.

4.36. Unicorn Horse - A unicorn buck prances in the magical forest full of beautiful flowers and trees. ©123RF Stock Photo Ltd. 21017760.

4.37. Collection of objects over white background.
   Copyright: Coroiu Octavian. ©123RF Stock Photo Ltd. 19357541

4.38. What do you see? The flower of an artichoke, 3d abstract color flower or star; microbiological organic shape; virus macro, an ornament for old violet women's hat?
   Copyright: katisa ©123RF Stock Photo Ltd. 19881379.

4.39. Without images and concept our reality would be totally chaotic and our cognitive world would be impossible. (Illustration by the author).

4.40. Our images, concepts and theories are means of classification and ordering of reality. (Illustration by the author).

4.41. Reality keeps changing throughout the history of culture because the concepts and theories with which we interpret and map reality keep changing. (Illustration by the author).

4.42. Top, right. What is the name of this book?
   ©The photo of the book is reproduced here by kind permission of Raymond Smullyan.

4.43. Bottom right. Brown Labrador puppy on yellow ground.
   Copyright: Vladislav Ageshin. ©123RF Stock Photo Ltd. 8271210.

4.44. Bottom left."an abstract painting" done by the author, not Jackson Pollock. It was done in less than one minute by splashing few colors on a piece of cardboard, using three syringes filled with my children's water colors. This great painting was signed – Mastul, meaning "stoned" in Arabic. Objects and all the so-called "abstract paintings" have no reference and no self-reference. Moreover we have to use words in order to refer to them such as "abstract expressionism" whatever it means.
4.45. Monotheism. (Illustration by the author)

4.46. All Gizah Pyramids. ©Ricardo Liberato\Creative Commons [Wikimedia]

4.47. Space landscape near active black hole star with accretion disc. Copyright: PaulPaladin. ©123RF Stock Photo Ltd. 22543619.

4.48. Rose. There are at least 150 known species of roses and thousands of hybrids made from them. Photographed by the author.

4.49. Sculpture "Janus" in the Summer Gardens of St. Petersburg, Russia. In ancient Roman religion and myth, Janus is the god of beginnings and transitions, thence also of gates, doors, passages, endings and time. Copyright: Alexander Trofimov ©123RF Stock Photo Ltd. 24578012

4.50. Top. A holon is a systemic entity. It includes all the subsystems\holons below it, but it is included by the subsystems or holons above it. Indeed, a system is a set of interconnected holons, or a stratified holon.

4.51. Bottom. In the systemic world, destruction or change of any holon in the system, affects the whole system, because every holon is connected, directly or indirectly, to all other holons in that system. This is true for organisms and figurative paintings as well because they are systemic. This is not true for most objects.


4.55. Top. Black kitchen utensils on silver hooks, on wooden background. Photographer: serezniy. © 123RF Stock Photo Ltd. 17515134

4.56. Middle. Winter warm lady’s clothes on a white background. Photographer: Andrey Armyagov. © 123RF Stock Photo Ltd. 7905331.


4.59. Middle. Model of atom. Photographer: gl0ck33. © 123RF Stock Photo Ltd. 10253281

4.60. Bottom. Bacteria. Photographer: Sony Sivanandan. © 123RF Stock Photo Ltd. 10629226

4.61. Top. Sequoia. Photographer: Galyna Andrushko. © 123RF Stock Photo Ltd. 8232637


4.64. Top. A close-up of numerous types of worn river rock (stones) Copyright: Vince Clements. © 123RF Stock Photo Ltd. 4967089.

4.65. Middle. Background of red brick wall pattern texture: serial order. Photographer: Danil Roudenko. © 123RF Stock Photo Ltd. 14048233

4.66. Bottom. Vintage, retro metal kitchen device for chopping meat-grinder. assembling the parts of this device is dictated by its mechanism design. Photographer: Aleksandr Volkov. © 123RF Stock Photo Ltd. 12996537


4.68. Middle. Empty university class room. Discrete and serially ordered entities. Photographer: Truembie. © 123RF Stock Photo Ltd. 9842331

4.69. Bottom. Plates, glasses, cup and cutlery on wooden table: Discrete entities. Photographer: Olga Yastremska. © 123RF Stock Photo Ltd. 11954391

4.70. Heinrich Bünting (1545 – 1606). Stylized world map in the shape of a clover-leaf (the three classical continents of Europe, Asia, Africa), with Jerusalem at the center. Wikimedia Commons.

4.71. Babylonian map of the world, ca 500 BCE. The earth is a flat disk surrounded by cosmic ocean. Courtesy of the British Museum. Map showing Assyria, Babylonia and Armenia. Wikimedia Commons.

4.73. Top. Holbein the Younger, Hans (1497/8-1543) Portrait of Erasmus, 1523 (oil and egg tempera on panel), / Private Collection / The Bridgeman Art Library

4.74. Bottom. Paintings depicting mammoth and cattle, from the Chapel of the Mammoths (cave painting), Paleolithic / Grotte de Pech Merle, Lot, France. The Bridgeman Art Library.

4.75. Top. Two very tall high rise buildings in Mississauga Ontario. Photographer: kurtvate. © 123RF Stock Photo Ltd. 11000614

4.76. Bottom. A row of terraced houses in Glasgow West End, Scotland. Photographer: Claudio Divizia. © 123RF Stock Photo Ltd. 8071003

4.77. Top. A row of summer clothes hanging on the rack. Copyright : satina. ©123RF Stock Photo Ltd. 12657903

4.78. Suburban culdesac homes aerial in the eastern United States: Discrete entities in serial order. Photographer: klotz. © 123RF Stock Photo Ltd. 13419096

4.79. Big aged tree in a park with red leaves during fall. © 123RF Stock Photo Ltd. 15329327

4.80. 3D Printer by Formlabs. From the designer’s point of view, the photo on the screen is not a work of art but a virtual model of the actual model built by the machine according to an algorithm. Photographer: Andy Ryan. © Formlabs.

4.81. Workshop of Hans Holbein the Younger 1497/8 (German). Title Portrait of Henry VIII. Date 1537 – 1547. Oil on canvas. Height: 2,390 mm (94.09 in). Width: 1,345 mm (52.95 in). Walker Art Gallery. Source/Photographer eAHC0d0WiemXSA at Google Cultural Institute, zoom level maximum. Wikimedia Commons, Public domain.

4.82. Top. The Scream, 1893 (oil, tempera & pastel on cardboard), Munch, Edvard (1863-1944) / Nasjonalgalleriet, Oslo, Norway / The Bridgeman Art Library © The Munch Museum/ The Munch-Ellingsen Group/ BONO, Oslo 2013

4.83. Bottom. Illustration of a red armchair on a white background. photographer: Viktoriya Malova. © 123RF Stock Photo 13285876

4.84. Graphic illustration of analytic and synthetic tendencies in language and design.
Illustrations in chapter five

5.1. The Adoration of the Golden Calf - Picture from the Hortus deliciarum of Herrad of Landsberg (12th century). Date: circa 1180
Source: Hortus Deliciarum. Author: Herrad von Landsberg
Photographer: Dnalor_01. Wikipedia, Public domain.

5.2. Asa destroys the idols and forbids worship in local shrines.
Date: 1372. Source: Petrus Comestor's Bible Historiale (manuscript "Den Haag, MMW, 10 B 23"
Author: An illustrator of Petrus Comestor’s Bible Historiale, France, 1372. Wikimedia, Public domain.

5.3. Second Temple Model of the ancient Jerusalem (Israel).
Copyright: flik47. © 123RF Stock Photo 17163936.

5.4. Magdala is the name of ancient town located on the shore of the Sea of Galilee.
In the synagogue from the time of the second Temple, a rectangular stone was found with an engraving of the seven branched candelabra. Photograph: Hanay. Creative Commons.

5.5. "Mona Lisa of the Galilee". Ancient mosaic at The Synagogue. Floor in Tzippori (Sepphoris), Israel. © Tomisti, Creative Commons.

5.6. 14th century German illuminated Haggadah for Passover. Wikimedia Commons, Public Domain_{{PD-Art}}. (Author and source are not mentioned in this Wikimedia page. User: Bender235.

Purchase: Mr. and Mrs. Joseph Klingenstein Gift, JM 26-64.

5.8. Jewish ornament in interior of old synagogue in Jerusalem, Israel.
Copyright: Emanuel Kaplinsky © 123RF Stock Photo 17703181

5.9. Michelangelo’s Pietà in St. Peter’s Basilica in the Vatican. © Stanislav Traykov.Wikimedia Commons
5.10. The Duck-Rabbit Illusion.
Description: English: "Kaninchen und Ente" ("Rabbit and Duck"), the earliest known version of the duck–rabbit illusion, from the 23 October 1892 issue of Fliegende Blätter.
http://diglit.ub.uniheidelberg.de/diglit/fb97/0147?sid=8af6d821538a1926abf44c9a95c40951&zoomlevel=2). It is captioned, "Welche Thiere gleichen einander am meisten?" ("Which animals are most like each other?")
Date: 23 October 1892. Source: Detail from scanned page of Fliegende Blätter, full page: Flegende-Blatter-1892.png. Author: Unknown. © Wikimedia Commons, Public domain.

5.11. Top. Part of the terra-cotta army at Xian, an army of thousands of terra-cotta armed soldiers, chariots and horses also made of terra-cotta. They were built and buried near the grave of the first Emperor of China, Qin Shi Huang (260-210 BCE) because of the belief that this army would guard the Emperor in the next world. For the Emperor, his contemporaries and builders of this army, this was not a giant work of art but an army, the equivalent of a real army in this world. Photographer: The author.

5.12. Bottom. This Photo was taken by Robin Chen in summer 2005. It shows one of the terra cotta soldiers and his terra cotta horse. © Robin Chen. Wikimedia Commons, Public Domain.

In the big garden of this temple there are many sad lines in which each statuette is a tragedy of some mother. Photograph: The author.

When I photographed this figurine in the spring of 2011, the woolen clothing in which the figurine was dressed appeared fairly new and the flowers looked completely fresh. These two facts attest that for the temple workers and the mothers who maintain these figurines, take care that they will not feel cold and that they have fresh flowers beside them, these figurines are not works of art but a substitute for the lost baby. Photograph: The author.

5.15. Late 14th-early 15th century icon illustrating the "Triumph of Orthodoxy" under the Byzantine empress Theodora over iconoclasm. Patriarch Methodios I of Constantinople is on the top right, close to the Virgin.


5.18. Bottom. A scan reveals the body of a nearly 1,000-year-old Buddhist monk inside the statue of Buddha. Credit: Drents Museum.

The two images 5.17 and 5.18 are reproduced here by the kind permission of Drents Museum, Holland.

5.19. Description: Bernese Collection of the Historisches Museum Bern. Fragments from Berna cathedral, Pietà of a bohemian manufacture (Prague), 1400-10 c.

Date: 22 May 2014, 13:01:40. Source: Own work. Author: Sailko. © Wikimedia Commons


5.21. Photo of Turkish tiles, found in Rustempasa Mosque, in Istanbul Turkey. © Stock Images (Dreamstime): Turkish Tiles by Sufi70. ID:4245444.

5.22. Tiled entrance into Jame (Friday) mosque in Yazd, Iran. Copyright: Ilia Torlin. © 123RF Stock Photo 6088036.

5.23. Nasrid Palace- Alhambra, Granada in Spain. Probably one of the most sophisticated, profound and beautiful works ever done in design. In this work all mindprints or meta-structures of mind are present and in the most spectacular way ever done in design. Copyright: Jacek Cudak. © 123RF Stock Photo 10938349


Source http://www.asia.si.edu/collections/zoom/F1930.57.jpg
Author: in Mamluk dynasty. Public Domain. {{PD-1923}} Wikimedia Commons.

5.27. The destruction of idols at the Kaaba. Muhammad (top left and mounted at right) is represented as a flaming aureole. From Hamla-i haydarî ("Haydar's Battle"), Kashmir, 1808. Source: Histoire Geographie 5ieme Nathan. Author Unknown. Wikimedia, Public domain.

5.28. The Taller Buddha of Bamiyan before (left picture) and after destruction (right) by the Taliban in March 2001. To distinguish the two statues, the taller and smaller Buddhas (55 m and 37 m) from each other: Look at the form of the statues niche. The niche of the taller Buddha is much more precise. Date: 24 October 2009, 14:09 (UTC). Source: Buddha_Bamiyan_1963.jpg Buddhas_of_Bamiyan4.jpg. Author: Buddha_Bamiyan_1963.jpg: UNESCO/A Lezine; Original uploader was Tsui at de.wikipedia. Later version(s) were uploaded by Liberal Freemason at de.wikipedia. Buddhas_of_Bamiyan4.jpg: Carl Montgomery Derivative work: Zaccarias. Wikipedia, Creative Commons.
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Deut. 12: 2-3
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Exodus 20, Exodus 31, 1-11.

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Quran, 7:148-150


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