

A Vision of the Future of Product & Interior Design in Consideration of Environmental Energy Architecture Perception

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ABSTRACT:

Environmental Energy Architecture seeks energy originality, substantive distinctiveness, formal consistency, and environmental compatibility. It re-creates a nation's energy architecture by utilizing new technology (smart and digital architecture). In order to generate new rational and atypical answers to the issues and demands of interior design furniture, particularly in the aftermath of natural catastrophes, when it is highly necessary to develop new logical and atypical solutions. The study approach of this study is broken into four sections: First, it explains the notion of energy design. The second section explains the energy source (renewable energy and nonrenewable energy) Relationship between bio geometrical forms and energy regulation is the third component. The fourth section is an example of how to design and furnish an interior space in an environmentally friendly manner utilizing sustainable energy. Where it was concluded that Energy Environmental Architecture is one of the most important methods as a language of the formation of a space, which is used by man, whether for living, business, hospitalization, or any other purpose, as well as providing a solution to the reconstruction after natural disasters, where it is necessary and extremely urgent to develop new rational solutions and atypical to the problems and needs of architecture.

Introduction:

Since the world has looked into the close link between economic development and the environment, specialists warn that traditional forms of economic development are limited to the over-exploitation of natural resources. Meanwhile, this causes a big strain on the environment due to pollutants and harmful residues. Hence, emerged the concept of sustainable development (Sustainable Development), which is defined as “meeting the needs of current generations without compromising the ability of future generations to meet their own needs” (Nations, 2022) In the last decade of the 20th century, most of the world paid special attention to broad themes of environmental protection and sustainable development. There were enormous calls for reducing the environmental impacts caused by various human activities, mainly for eliminating waste and pollution and conserving natural resources for the next generations. Therefore, alternative energy could be an effective solution to protect the environment. For example, using renewable, and non-renewable sources of energy, and interior design bio-geometry benefit humans and contribute to earth Solutions. The purpose of this study is to gain insights into the perceived barriers regarding sustainability and interior design, to break the barriers of interior designer attitude, and maintain sustainability in design and architecture.

The procedures of green architecture are the primary basis for the sustainability of existential resource conservation and optimal utilization. However, green architecture is expensive, as some belief. Green architecture is a way of life, especially in the states that make architectural designs count on resources and lack physical potential. By examining architecture from a historical perspective, it is obvious that the application of the foundations of green architecture would be beneficial.

First:

The Concept of Design with Energy

1. Environmental Design

Environmental design is not an architectural, or urban trend; it is a methodology for the design of buildings and urban communities. This design serves to ensure compatibility with the climate and the provisions of favorable climatic conditions for the residents. That is to say, environmental designs do not conflict with the main content of the environmental design, such as building schools, or other architectural and urban trends (Qin, Huang, Fu and Lai, 2021) .

2. Environmental Architecture

Environmental architecture is defined as follows (Heywood, n.d.):

- it is the built environment, where functional efficiency, safety, health, and comfort features are available.
- it is the architecture that does not destroy the vital systems.
- it is the architecture that keeps the recoverable resources to penetrate the ground.
- Based on the above, we conclude that the architecture of energy saving is one of the branches of environmental architecture. Therefore, a discussion of energy-saving architecture should be provided.

3. Energy

Energy is “the capability of doing action or effect” (What is energy? explained - U.S. Energy Information Administration (EIA), 2022) This means that energy is manifested in the characters or their appearance, and it is considered positive if these characters are suitable, and vice versa. Increasing the positive energy of a person leads to improving his balance and vitality; on the one hand, and accepting his lifestyle, on the other

one. Thus, studying energy is one of the principles of having a good life.

4. Energy-Saving Architecture

Energy-saving architecture is one of the most important branches of environmental architecture this so-called architecture focuses on eliminating the depletion of combustible materials and reducing energy consumption in buildings, both for the purposes of climate control and for other purposes, such as lighting, and water, heating, and cooking (Tsamardinos et al., 2020).

The aim of energy-saving architecture is to save energy in the construction of the building. On the contrary, energy-saving architecture, the use of aluminum, takes tremendous energy to be extracted from the raw materials. Alternatively, wood is much better than aluminum because it is a renewable natural resource that almost consumes no energy.

5. Environmentally Sustainable Interior Design

The concept of sustainability has existed since ancient times. Therefore, our ancestors did not use the term 'sustainability' as an expression of their lifestyle, or as a method for livelihood construction. However, the concept continued to be used spontaneously and automatically (Fu, Lai and Yu, 2021).

Sustainable construction is a method that seeks integration of quality with the economic, social, and environmental performance of the building (Aghimien, Li and Tsang, 2021). This would lead to the rational use of natural resources, and appropriate management of the building, to preserve the limited resources, reduce energy consumption, as well as maintain and improve the quality of the surrounding environment. In other words, sustainable construction involves taking into account the life span of the building quality in the environment, the quality of the performance of building systems, and future projected values in society. Construction materials are extremely harmful to the environment. For instance, the formaldehyde output of insulating materials, compressed wood,

or other toxic substances in paints and solvents, such as varnish, mercury, and asbestos, as well as acoustic insulation paints and tile floors, cause fugitive emissions and air pollution (Tsamardinos et al., 2020). Through the efficient use of resources and energy, pollution can be eliminated. Added to this, noise pollution could be also reduced, to maintain harmony with the environment and integration of various building systems. Thus, we find that green buildings and sustainable design for the environment seek to protect the health of its users, improve the productivity of workers, and the use of energy, water, and other resources more efficiently, as well as reduce the negative impact on the environment (Hagan, n.d.).



Fig. (1) Sustainable Architecture Conceptual

Sustainable development goes beyond the purely environmental concept to include all sectors, as manifested in their interaction with each other and their impact on the quality of life. Environmental sustainability is a prerequisite for improving the quality of life, including public health and economic development through the protection of natural resources and raw materials (Tsamardinos et al., 2020).

Having dominated the world today, many terms such as Green Architecture, and Sustainable Environmental and Ecological Design are interchangeably used. These are important terms that have multi-facets and achieve the balance between human needs; on the one hand, and preserve natural resources; on the other one, to

reduce the environmental pollution rates (Fu, Lai and Yu, 2021).

In addition, sustainability is comprehensively more related to the development of natural and human resources, and patterns of human behavior with respect to the environment.

6. General principles of Sustainable Design

Principles of sustainable design include the following (Qin, Huang, Fu and Lai, 2021):

- Do not use extravagant things.
- Ensure that water conservation is a divine gift to any person.
- Conserve energy through the design of the building to benefit from the natural energy and natural ventilation as much as possible. For example, tantamount buildings, which have similar designs and sound distribution in landscapes, reflect the correct understanding of the foundations of the architectural design, through which the architect better exploits natural resources, such as energy and air.
- Rational consumption of natural resources, mainly Aloe Vera trees, is necessary to improve investment in green architecture.
- Highlight the beauty of the house in all its dimensions to reflect the mentality of the design. We are not looking for isolated concrete blocks.
- The designer has to take into account the surrounding environment and provide realistic complements to the design .
- The human-nature relationship has an interconnected impact on human beings and ecology.
- Maintain optimal hygiene standards for humans and the environment. to ensure the long-term presence of the purest natural resources.
- Find a better relationship between the buildings surrounding streets to minimize

the choking concepts in the design process. Good design and sustainable architecture are achieved through the integration of the principles of traditional architecture with respect to the systems of modern technology. This would result in keeping the building materials and energy sources, increasing the durability of buildings, ensuring the convenience of dwelling, and savings of energy and operating costs, as well as reducing pollution and waste, and savings through reuse (Tsamardinos et al., 2020). The building is an environmentally balanced building, as it is designed according to the concept of sustainability, which stems from the environment, to conserve the natural resources for future generations.

Therefore, one can extract a set of principles, which were based on the traditional building, to maintain energy conservation and provide comfort for the inhabitants (Fu, Lai and Yu, 2021). Accordingly, the environment would not be negatively affected, which in turn could contribute to the development of modern building indicators, namely:

- The location and design.
- Shading and afforestation.
- Natural ventilation.
- Construction materials.
- Environmental design and energy conservation.

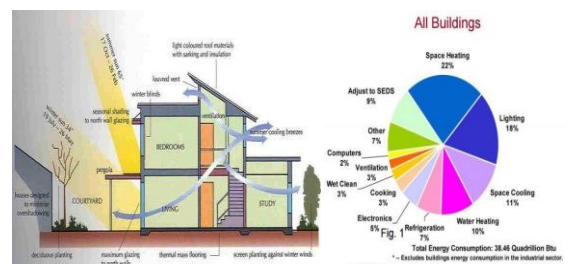


Fig. (2) Passive solar home orientation and proper insulation are just a couple of ways to ensure comfort in any climate

Second: Types of Energy in Architecture, Interior design, and furniture

The quality of the relationship between the inner space and the environment is called "building technology", which is all related to space Internal applications by handling these diverse environmental elements (Aghimien, Li and Tsang, 2021):

- Climate
- Building materials
- Energy

1. Climate

The climate is considered a component of the natural environment that affects interior design and architectural composition. The climate is divided into two parts

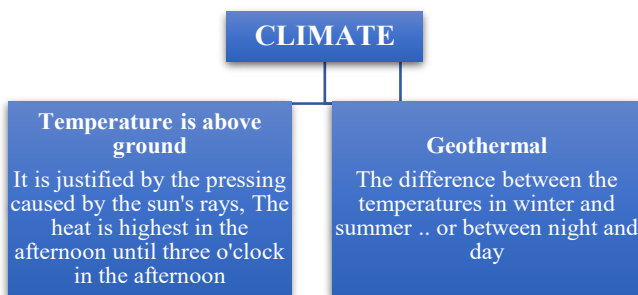


Fig. (3) Climate

2. Building Materials

Building material in the inner space involves other factors, which ensure the ability of the buildings to retain heat or prevent the acquisition of the surrounding environment. Since its thermal properties impede or delay the penetration of heat from the outside to the inside, this depends on the composition and thickness, as well as surface texture and color. Rough texture has properties, which help thermal radiation and sunlight falling respond to any material falling back as being part of them, while the other part is absorbed within the Article (Tsamardinos et al., 2020). To explain, the severity of building the walls of high capacity delays the penetration of thermal energy to the

interior spaces and reaches the interior at night (i.e., storage in the outer shell of the wall).

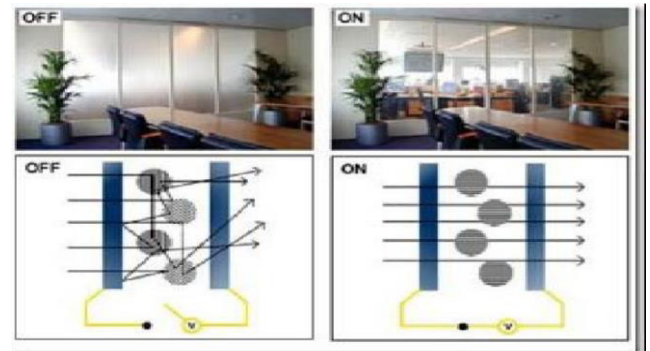
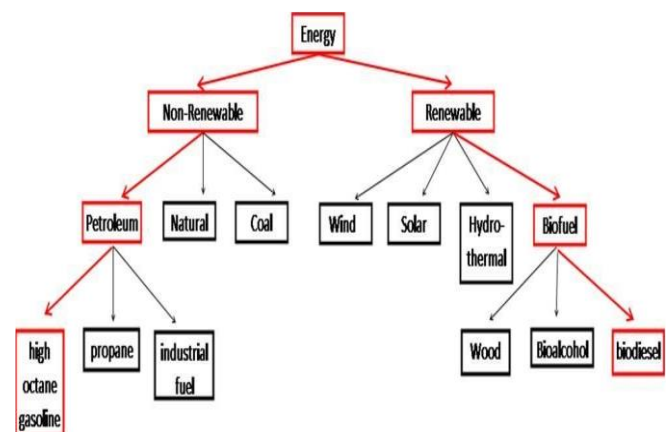


Fig. (4) Electrochromic layer .. Energy changing material

3. Energy

Energy is one of the most important themes that revolve around the idea of environmental buildings. Sustainability is the fact that environmental buildings are using cutting-edge technology in several ways, but the idea of energy knowledge and efficiency remains a significant point, which is concerned with environmental regulations in the field of energy (Thomsen and Tamke, 2022). In the late 20th century, environmental regulations emerged as one of the visions and solutions that make the building a guide to energy, though things became even worse in the early 21st century. Therefore, internal voids are designed and created to rationalize energy consumption. Voids were used in ancient buildings; moreover, they are developed to rationalize electricity consumption (Qin, Huang, Fu and Lai, 2021).



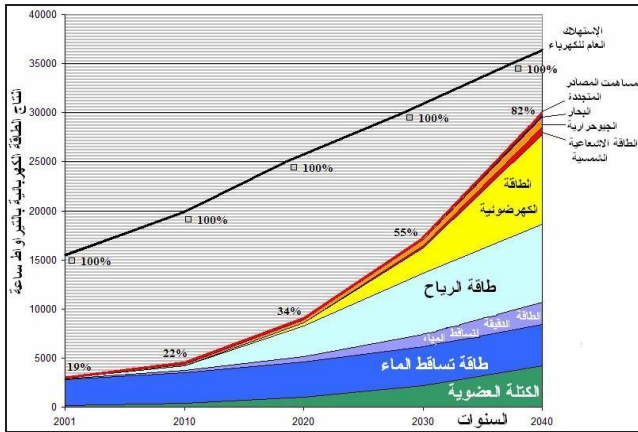


Fig. (5) Types of energy

3.1 Types of Energy

3.1.1 Non-renewable energy

Non-renewable energy is energy that has limited resources. Non-renewable energy would run out, through the passage of time, due to exploitation of limited natural resources and pollution. Non-renewable energy provides 86% of the world's energy. The remainder comes from nuclear reactors (7.6%), electro projects, and water (6.7%). However, renewable energy sources are only (0.8%) of the world's energy (Hagan, n.d.).

3.1.2 Energy sources of non-renewable fossil fuels consist of the following three main types:

- Coal
- Crude Oil
- Natural Gas

3.1.3 The characteristics and features of non-renewable energy

Non-renewable energy has several different features. For example, both solar and wind energy can be used to generate electricity (Thomsen and Tamke, 2022). Similarly,

geothermal and biomass energy can be used to fulfill our daily demands.

Some of the advantages of non-renewable energy sources are:

- Available in large quantities
- Burnt easily to produce a large amount of thermal energy, which can be used to generate electricity for cooking and heating
- Easy transportation

In spite of the various benefits of non-renewable energy, there are many disadvantages the disadvantages are manifested in the combustion of many gases, such as sulfur dioxide, nitrogen oxides, and carbon dioxide, which cause global warming (Global Warming) and acid rain and result in any lung disease. As for the prices and availability of non-renewable energy sources, they are linked to the political conditions of the regions of production (Fu, Lai and Yu, 2021).

3.2 Renewable Energy

Renewable energy is constantly regenerated and has a stockpile of materials. Hence, it is important to distinguish between two types of renewable sources:

- Renewable energy sources, which are not generated by technology, are available in all countries
- Renewable energy sources, which need technologically advanced systems to be integrated efficiently. However, the world has not discovered these sources yet and they are still being researched



Fig. (6) Solar Drop-Abu Dhabi
 The sensual and dynamic dress of the project «Solar Drop» symbolizes the integration of renewable energies



Fig. (7) Using Solar energy to provide light in street

3.2.1 The characteristics of renewable energy

Renewable energy has the following features (Aghimien, Li and Tsang, 2021):

- it is available in most countries of the world
- it is considered a local source of energy that does not have to be transported, which goes in line with the development and needs of remote and rural areas
- it is a clean source of energy and environmentally friendly, which in turn maintains public health
- it is economic and profitable
- it is competitively cheap and contributes to the development of the government's favorable regulatory framework

- it neither results in any noise nor any harmful residues, which cause environmental pollution
- it ensures the development of the country environmentally, socially, industrially, and agriculturally
- it is not generated by using sophisticated techniques; however, it can be manufactured locally in developing countries

3.2.2 Examples of Renewable Energy

- Solar energy: human beings convert the incident *solar* radiation into usable *heat* and light by using technology. For instance, solar energy is transformed to generate thermal and electrical energy, by using thermal engines, photovoltaic panels, and photovoltaic converters.
- Daylight Solar Energy: the sunlight is used for lighting the building instead of using electricity. This is done by assembling the sunlight in the optical fiber to pass through solar cells on the roofs.



Fig. (8) Daylight and how arrived at the various rooms by optical fiber is passed through roofs

- Bio-energy is derived from the so-called biomass. Biomass is any organic material, which stored solar radiation and converted it into chemical energy. Biomass materials, such as wood, fertilizer, or sugar cane, are vital sources of energy similar to fuel fossil.
- Wind energy: wind energy is produced by choosing the suitable sites, where the wind is extremely strong, to generate electricity.



Fig. (9) Turbine Light Highway Lighting columns highways; in the idea depends on the exploitation of wind energy in operation instead of the electric energy consumption. The idea is to exploit the moving air resulting from vehicular traffic in highways and is absorbed to generate energy through which it operates and to illuminate



Fig. (10) One of the buildings designed to use wind power

- Hydropower: the term hydroelectric includes water and electricity to get hydropower and generate electricity. It is a highly clean source of energy by using fast water flow from waterfalls. Water turbines are used to generate electricity from water moving from top to down. Then, the electrical generator rotates and produces electric power. Hydropower is environmentally friendly, and the capital invested in this project is for building a dam, or reservoir. This is useful in the process of irrigation organization, along with the power, as they have cost-effective maintenance, operations, and

easy installation and operation of water turbines (Fu, Lai and Yu, 2021)

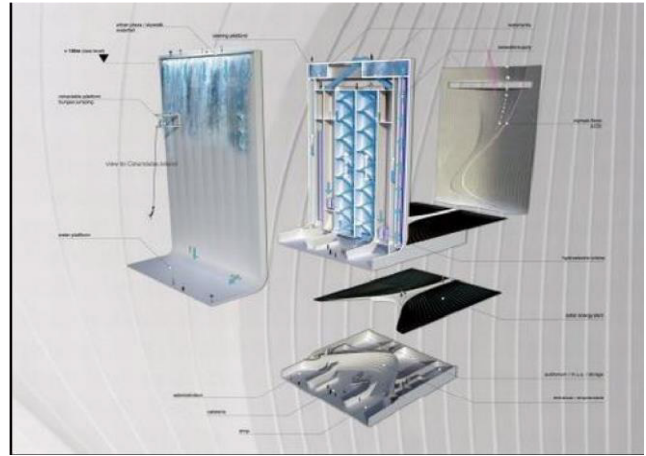


Fig. (11) Solar City Tower , Rio de -Olympic Games 2016 Janeiro, Exploiting hydro power generated from water and interfaces designed to work it falls on the energy required to provide the city of the Games and their shape varies according to the intended function of which during the times of the day.

3.3 Solar Energy and Interior Design

A “passive solar house” is designed to provide cooling and heating at home without using appliances, or mechanical devices. This style of construction guarantees greenhouses, which adapt to the changes in the surrounding environment. For passive heating and cooling, the site of the house should be carefully selected and well planned. In addition, the building materials and architectural style should be environmentally effective (Qin, Huang, Fu and Lai, 2021). Therefore, the urban country planning, construction materials, and sustainable building features should be on the account of the best site, where the house would be located and would be carefully designed to collect, store, and distribute the sun-heat in winter, and to block the sun rays in summer (Heywood, n.d.).

3.3.1 The Following are the Techniques of Passive Solar Energy:

The radiant heat of sunlight penetrates south-facing windows, which keeps interior surfaces (walls, furniture, floors, etc.) warm. For direct

solar gain, the south-facing window area should be reduced, or increased to be of the proper size, in order to use thermal mass when the climate changes.

3.3.1.1 Passive Solar Design and Utilizing Energy

The efficient use of passive solar energy almost eliminates the need for heating, cooling, and electricity. Passive solar house designers use insulation levels, which are more sustainable than those used in traditional constructions. Moreover, windows are designed and oriented to be up to twice, in order to be heat-loss resistant. In addition, providing careful sealing and caulking around the window, door openings, and under steel plates, reduces air infiltration (Aghimien, Li and Tsang, 2021).

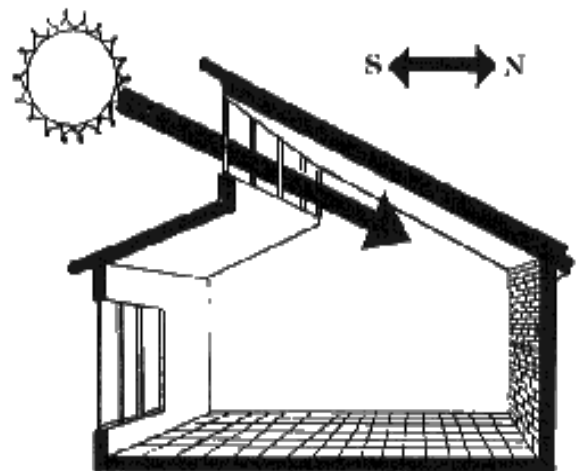


Fig. (13) use passive solar strategies to provide heat.

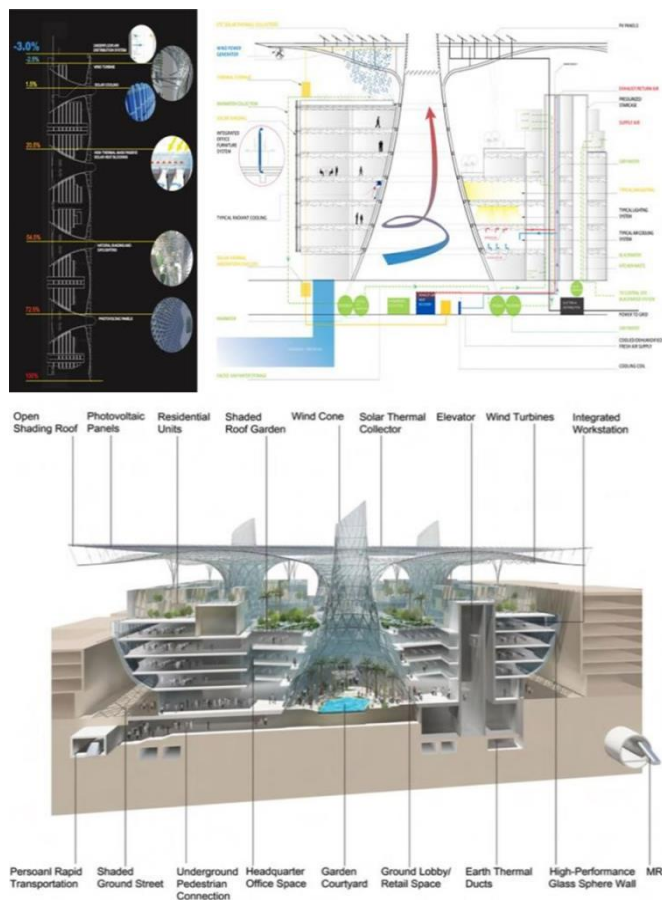


Fig. (12) Abu Dhabi, "Masdr," the first city in the world depends entirely on renewable energy

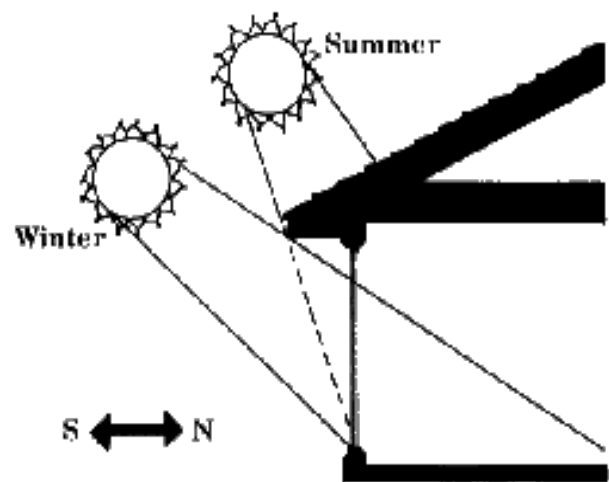


Fig. (14) Use passive solar strategies to provide cooling

3.3.1.2 Passive Solar Strategies and Cooling

Passive solar house designs, which make use of roof and window overhangs, ensure optimal function, as these overhangs shade the house in summer, while they allow sunlight to penetrate the interiors in winter (Heywood, n.d.).



Fig. (15) Sun breakers

Third: Bio geometry

Bio Geometry: is the science of special engineering, to provide the human body with balance, in terms of the surrounding environment. It is considered a holistic science, which incorporates the most significant branches of the science of engineering. Bio geometry provides the ultimate functions of energies in the universe, as it can restore balance and harmony. It is, therefore, considered a complementary science to medicine. Bio Geometry would have a positive effect on health, as it can eliminate energy-related diseases, which are caused by environmental problems. In addition, Bio geometry maintains a pollution-free environment, by providing solutions to potential hazards (Qin, Huang, Fu and Lai, 2021).

4. The Pioneer of Bio Geometry

For example, Dr. Ibrahim Karim, who is the founder of Bio geometry, has been able to set criteria of energy components, which solve negative impacts on the environment. Therefore, both Bio geometry and quantum physics are obviously used for the ultimate utilization of energy. Dr. Ibrahim Karim is not only a

specialist in the field of radiation but also a master of the domain of geometric shapes. He has obtained B.S. and MA in Architecture, from the Federal University of Science and Engineering, Zurich, Switzerland, where he was also awarded his Ph.D. in technical sciences. His numerous projects integrated the *application of the discipline knowledge gained from his degree and research interest to develop the use of bio geometry in Egypt and abroad. Indeed, he is the one, who first discovered the science of bio geometry, 30 years ago, after his strenuous efforts in scientific research (Karim, n.d.).*

Dr. Ibrahim Karim introduced bio geometry to refer to a special type of energy, which links different types of energies together in parallel configurations, to form the energy system, which is the otherwise called spiritual energy. Spiritual energy is best manifested in holy places, especially the old ones, where the buildings are oriented to receive this energy from the floor. This shows that earlier civilizations were aware of the existence of such energies within this vast universe. For instance, the ancient Egyptians had different ways to measure and track the suitable routes, in the building process. Their calculations helped them to gain this spiritual energy and benefit from its useful properties, which in turn maintain the balance between the components of the universe (Karim, n.d.).

It turned out that Dr. Ibrahim Karim is not the founder of Bio geometry, but he is the ancestor of the Pharaohs. The pyramids are the best manifestation of the Pharaohs' expertise and knowledge. Research has proven that the pyramids were built, according to technical criteria, to preserve the dead bodies from decomposition for a long time, due to the electromagnetic fields measuring 13.000 gauss. In spite of the simplicity of the pyramid's designs, the best-automated computer software could never design such a miraculous building.

Historians found that when the Romans invaded Egypt, their priests used Amenhotep Temple to relieve the pain of people through herbs, music, colors, and scents. Added to this, geometric shapes were also provided as a type of therapy (Karim, n.d.).

5. The Aim of Bio Geometry

The aim of the since of Bio geometry is to restore the balance of the universe as created by God. To achieve this balance, this science forms a language of the shapes and objects, which illustrates their frequency, to examine the formation of the universe to simulate their natural criteria. Some of the concepts, which Bio geometry introduced, are Quality and Quantity, Vibration, Resonance, Harmony, and Sample.

Meanwhile, Bio geometry studies the relationship between these three elements: form, energy, and function. Hence, Bio geometry has far-reaching applications ranging from personal growth, health, and spirituality to architecture, design, agriculture, mystical studies, and many other fields of life and work. The gentle resonance in energy lessens the intensity of dark energy and dark matter, in order to maintain balance and eliminate torsion (Heywood, n.d.).

Since Bio geometry is the foundation of Architecture, and all branches of design and composition, it has direct applications in extremely different fields. Therefore, provides solutions to environmental problems, such as electromagnetic and nuclear radiation emissions, and toxic fumes released from building materials (Tsamardinos et al., 2020).

Thus, Bio geometry mainly serves the environment by regaining balance via its subtle energy components (scalar & torsion wave). The Bio geometrical effect contributes to the quality of interaction between the components of dynamic energy systems in humans, animals, and

plants. It, therefore, sets the foundations of design and resonance of geometrical shapes. The formation of resonance occurs through gentle pulses, created by waves in energy flows. The so-called BG3 refers to Bio geometry 3, which includes the higher harmonics of the three-energy, which have vibrant qualities, namely negative green, *higher harmonic* of ultraviolet, and *higher harmonic* of gold (Aghimien, Li and Tsang, 2021).

First, negative green is at the center of the body. For instance, the pyramids and hemispheres produce this vibration along their central axis.

Second, the higher harmonics of ultraviolet is an invisible light, which is produced in the environment of angels and other light beings. It is a very purifying and relaxing vibration, which balances overactive organ functions and has a calming effect on the nervous system.

Third, the higher harmonics of gold have a higher resonance with physical gold. It is manifested by the halos around the heads of saints, as it gives people wisdom and prosperity. On the physical level, it has an energizing effect, which maintains balance in the body's immune system.

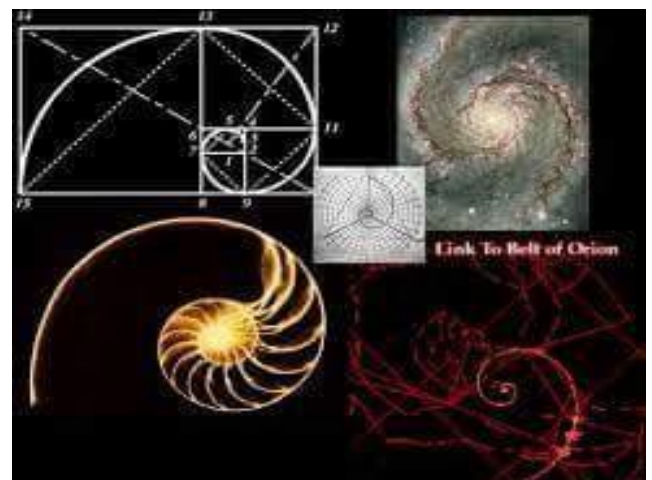


Fig. (16) Golden Spiritual which is the harmful part of energy in it is cancelled

The purpose of the development of Bio geometry Dr. Ibrahim Karim's research is mainly for improving the new form of architecture that would enhance the human biological system and give a new meaning to the concept of "Home".

For that reason, Dr. Ibrahim Karim used Bio geometry in the design of several touristic projects and modification of existing buildings. The new bio geometrical architectural design contributed to upgrading the energy quality of existing homes and illuminating the potentially harmful effects of unchecked energy fields. To explain, the architectural design, furniture layout, electrical wiring, and modern appliances, specially designed decorative elements, are strategically placed to neutralize negative energy and add a positive quality to the house. The effect of the Bio geometrical energy on health is neither specific nor precisely predictable. It appears to amplify and balance the energy fields of the body on all levels and thereby gives the body greater power to heal itself. The healing process begins when the immune system restores its strength and balance, which differs from one person to another.

6. Bio Geometrical Foundations of Design

In the field of Bio geometry, researchers have to look into the different formation processes that are subject to the standards and regulations that God has made in the universe. Hence, researchers examine the natural formalism laws, mainly the divine foundations of beauty, and psychological as well as physiological comfort, which created a kind of energy organization to maintain equilibrium in the universe (Karim, n.d.).

In Bio Geometry the foundations of organized energy, include the following elements: rhythm and proportions, guidance and link, the center and balance symmetric, and asymmetric

interference. These elements operate individually or collectively and incorporate the quality of gentle energy organization within the formation process of energy. The following points briefly discuss the fundamentals of Bio geometrical design (Qin, Huang, Fu and Lai, 2021):

A. Orientation

The orientation place or time means utilizing Bio geometrical energy, after examining the optimal use of clean energy, such as wind energy, or solar energy. Therefore, the selection of the best building location is determined, according to the methods applied to benefit from wind directions, sunlight, and ultraviolet rays avoidance.

B. Balance

Balance is of two types: symmetric and asymmetric of a domestic blank. A balanced symmetrical domestic blank is characterized by a clearly equal axis around the design, which gives a hidden beauty and maintains the organization of energy. This is mainly based on the concept of the power switch in Bio geometry.

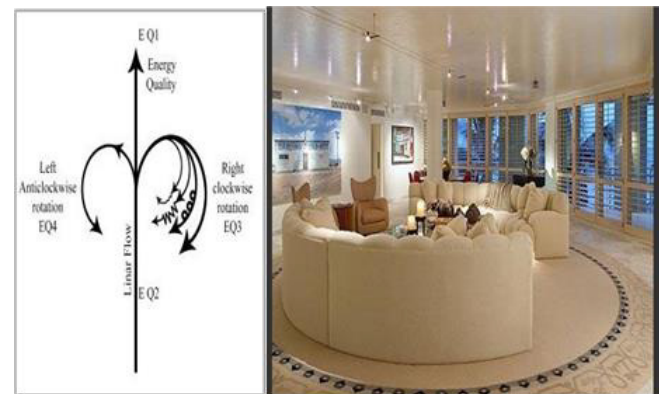


Fig.(17) The "power switch" in BioGeometry which refers to the validity of any energy there is around two different and complementary energy on the right and the left of this axis and with contrast these two types generated Balancing -Radial balance is clearly evident in all aspects of this design

C. Rhythm

Naturally formed rhythm results in creating organized energy, which is manifested in the natural formations of trees, plants, and hive designs. Stimulating natural rhythm in architectural designs would be applicable to

geometric configuration, as illustrated in the repetition of natural patterns and motifs.



Fig.(18) Repeating of wood slats on the wall of this pizza shop by” Baynes & Co Designers” creates a playful rhythm and draws your eye through the space

D. Rotation

The architectural formations of energy are feasible by the design network rotation. To track the full energy profile, one has to find the star shape in the design of the rotation box of the building, where energy is concentrated. The movement in the center of the design appears due to several factors, mainly the rhythm. This movement can occur at several levels, either in the horizontal plane or at the interface level. Consequently, movement can be easily spotted in the energy place levels.

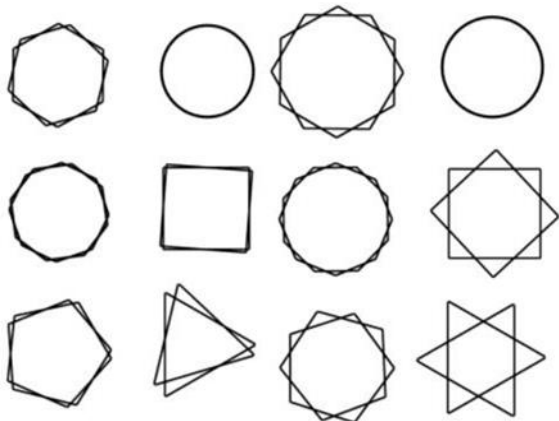


Fig.(19) The introduction of the process of the rotation around the center of formation



Fig.(20) Using rotate of shape in interior design

E. Interference and Form Transparency

Forms like vehicles give a sense of movement in the design. Looking into the deep meaning of the direction of the forms, or the other composite images, these forms express the place, movement, and direction of installation time, in order to generate energy.

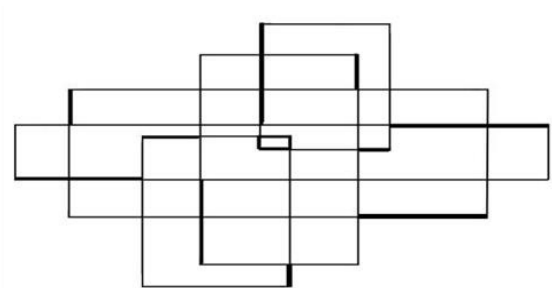


Fig.(21) Some kind of movement that the organization generate energy

F. Insert Movement by displacement

Entering repetitive movement of the form is possible in architectural designs. This should be determined by controlling the direction and speed of the movement, which is applicable by repeating the voids, or certain elements of the building design, or structure.

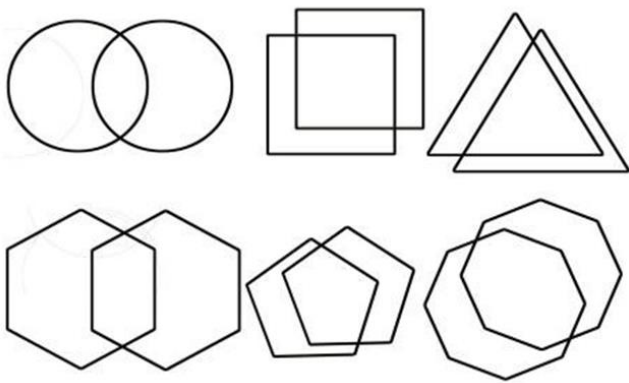


Fig.(22) Movement shapes by displacement



Fig (23) Movement shapes by vertical displacement

G. Proportions

The composition of geometric designs that generate energy has to include shapes of different angles. The relationships between the angles and wavelengths oscillatory would have different colors, due to the effect of sunlight ultraviolet rays. Consequently, the sun's falling geometric angle has different color effects on shapes.

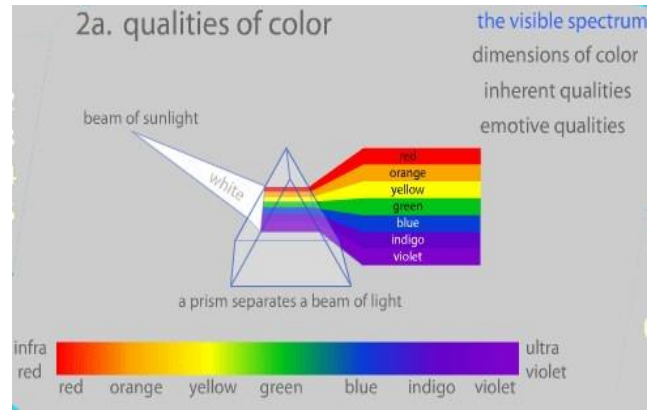


Fig.(24) Refraction of light through a glass prism

H. The insert of the movement for the formation of interference

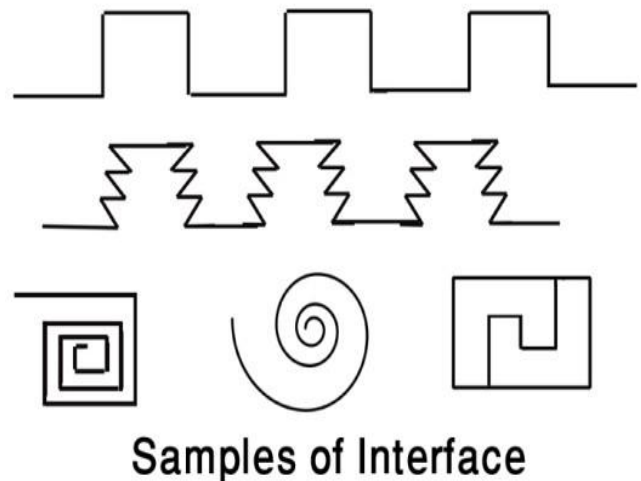


Fig.(25) Insert the movement for the formation of interference

I. The Color Compatibility

Each color has a specific position. If the situation changes, the power quality in the place is converted into energy organization, where the use of a pair of complementary colors, such as red and green, finds a field between them at an angle with the Earth's magnetic field and moves the two colors on one line until a regular frequency within the (space) between angles is found. Hence, the wavelengths have different color frequencies, where Cone Analyzed the sunlight to the different colors of the different

spectrum, as each color has a different angle from the other, which can be expressed.

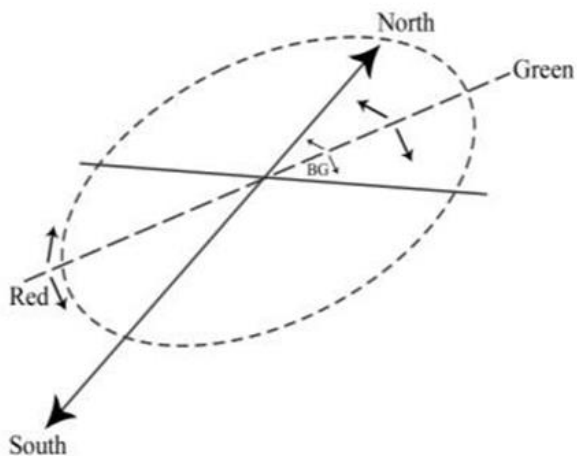


Fig.(26) Shows you how to find the center of chromatic to find energy organization



Fig.(27) complementary, split complementary colors angel

J. Angles and dimensions of the Organization of the energy

Bio Geometry sets a table of angles and dimensions which can be used in different designs Thus, the organization of energy has an effect on the human body functions (Kumar, Kumar and Devi, 2021).

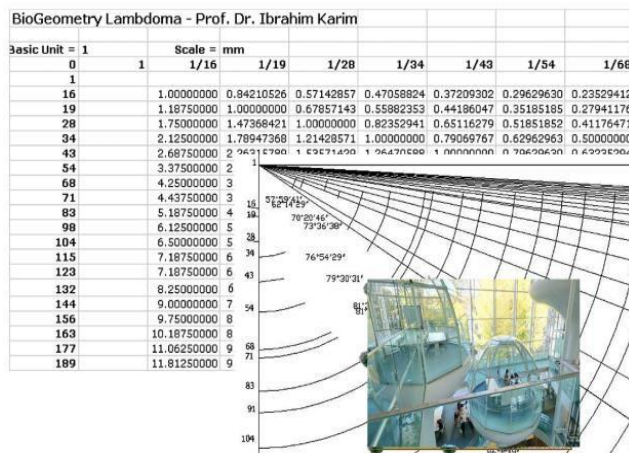


Fig.(28) Library in Japan provide spaces glass to provide the appropriate atmosphere for study and reading

7. Energy Emitted from the Geometric Shapes:

7.1 How to cancel the negative energy of geometric shapes

Studies and measurements of geometric shapes state that the pyramidal shape comes from its peak power, which has the quality of green color. However, the base power quality is the negative green color, which is a vertical component that has harmful energy, as it is under the dome. Therefore, it was necessary to study the different ways to eliminate negative energy (Kumar, Kumar and Devi, 2021).

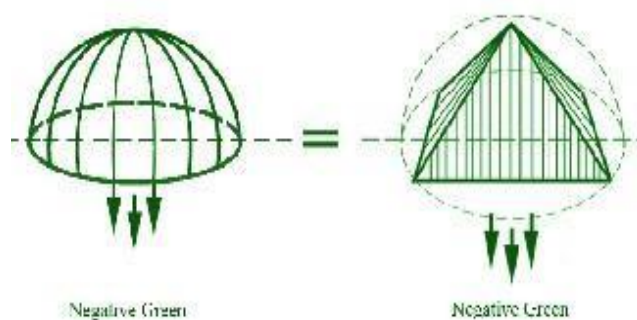


Fig (29) Dom = pyramid in negative energy

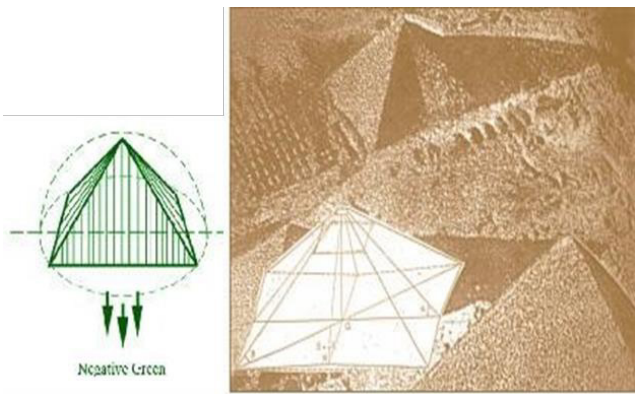


Fig (30) Pyramid- Refraction in the aspects of the Great Pyramid to cancel the negative energy of it

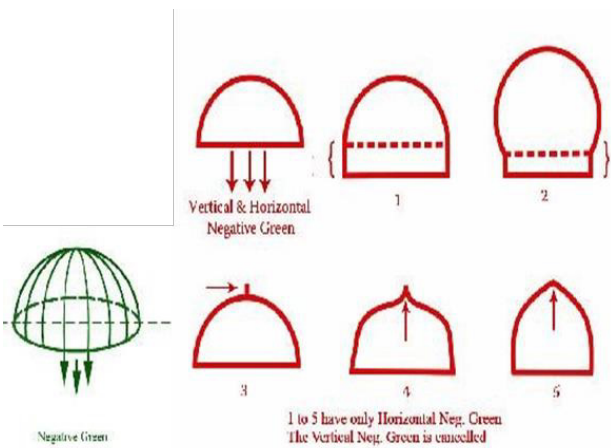


Fig (31) Dome - Dome solution

7.2 Analysis of Bio Geometrical Shapes (Tools) Used for Arranging Energy Emitters

A brief discussion, of the studies of geometric shapes, which maintain energy balance in the inner and outer decorations, is in the following sections:

I. 45-Degree Shapes

This shape is formed by one straight line, which has two lines attached to its ends forming a 45-degree line. This formation regulates and emits energy in the design.

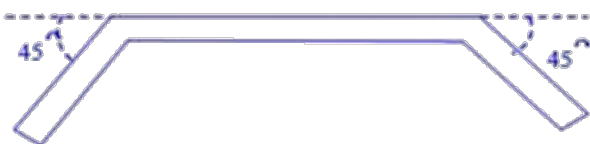


Fig (32) 45 degrees geometric shape

I. The column

The column is another geometric shape, which is programmed according to the foundations of Bio geometry. It is used in ground-related power problems treatment and workstation activity at the building entrance. The power line generated from the ground transforms the energy into a negative one.

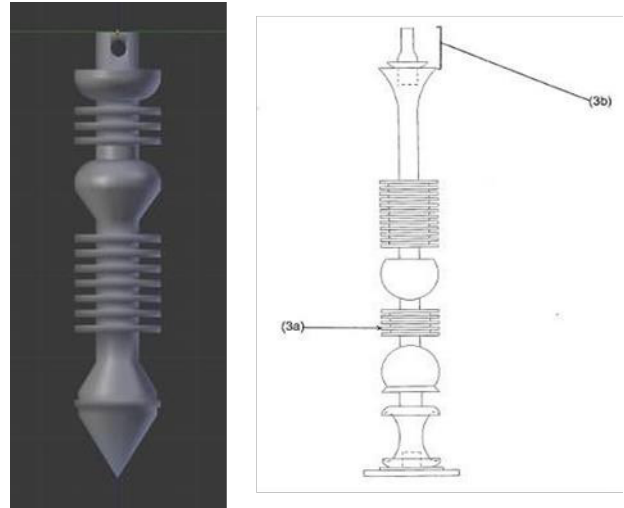


Fig. (33) Shows one of the side corners tends shapes

I. L-Shapes

In the L-shapes the center of energy is not determined to be in the middle. The energy is disseminated around the shape, where the organization of energy is transmitted in the medium if the shape is placed at the light source. Consequently, tight carries the energy and produces it. This could be one of the solutions to the ground energy problems.

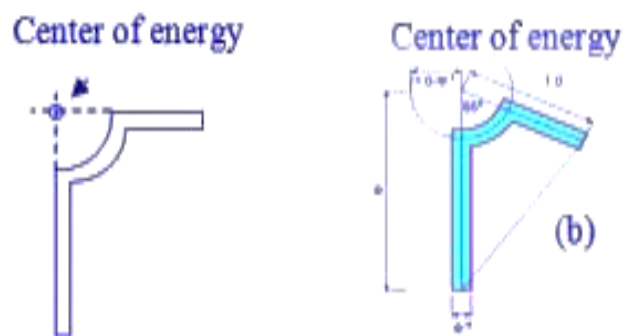


Fig (34) (a and b) bio-geometrical shapes

I. The Bio-geometric Carpet

This shape produces energy during bedtime, when it is placed under the bed, to maintain the energy balance.



Fig (35) bio-geometrical carpet

I. The Cupper Spiral Pair

This shape includes a pair of copper spirals suspended in any high area, such as a ceiling, where one of them is moving in a clockwise turn-like shape, and the other is moving in a counter-clockwise turn, to raise the negative energy in the internal space.



Fig. (36) The cupper spiral

I. Energy Wheel

The energy wheel has voids and through the measurement of samples of energy wheels, the organization of power could be simulated by

inserting the most effective shape, to get the same resonance in the new design and provide the energy in a space.

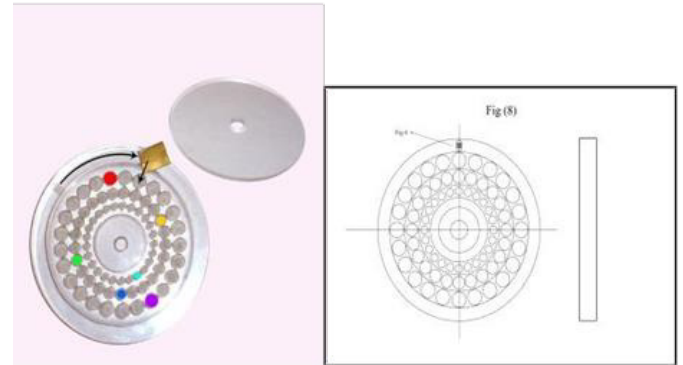


Fig . (37) The form of the energy wheel to Insert the organization on energy raw materials

I. Bio Signature Shapes

These are Bio geometric shapes for the different human body organs. If these shapes are located in the disturbing field of energy of a sick organ, for a long time, it can heal the body by restoring its ideal energy signatures; consequently, this organ can regain its normal function.

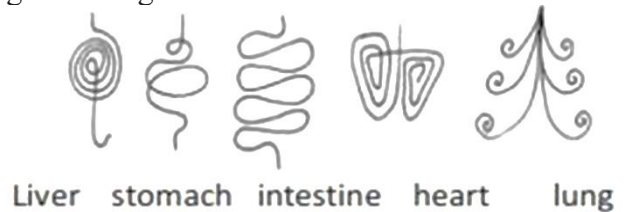


Fig.(38) Some bio signatures shapes

8. Geometrical Golden Shapes Arranging Energy Emitters

At these levels, hands-on techniques of physical radiesthesia, which enable people to detect and work with energies, are provided.

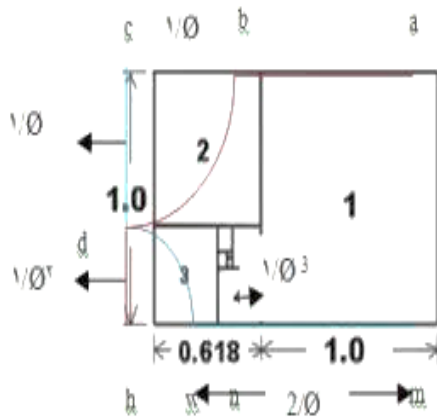


Fig.(39) Golden rectangle

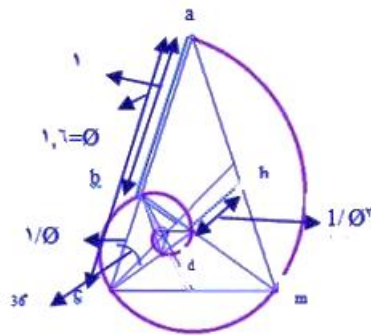


Fig. (40) Golden triangle

A. Tools and methods of measurement

Measurement is based on scientific analysis of the results of the measured interactions of various energy fields. Frequency interactions are tracked and by fixed standards, such as the case of a pendulum, Dowsing Rod, Kinesiology, and Etruscan



Fig . (43) Etascan

A. Intent

CI, RETAIL, and HOSPITALITY are basic requirements that ensure eliminating the development of inappropriate sites, reducing the vehicle mileage, and enhancing livability and human health. For the best utilization of Intent, the designer should locate the project under the certified LEED for Neighborhood Development (Stage 2 or Stage 3 under the Pilot, or 2009 rating systems, Certified Plan or Certified Project under the LEED v4 rating system. Projects attempting this credit are not eligible to earn points under other Location and Transportation credits.

Certification	level Points ID&C
Certified	8
Silver	10
Gold	12
Platinum	18

Table 1. Points for LEED ND location

Fourth: the application of the principles of sustainability in energy in Egypt

9. Energy consumption in Egypt

Egypt produces 20% of electricity out of the total energy produced. As per its target plan of energy consumption, Egypt generates electricity through renewable energy power stations. Compared to the United States, there is a remarkable rise in power generation and consumption, from renewable sources, around 10 quadrillions of BTUs each (Ahmed et al., 2021).

9.1 Application of Green Energy Consumption in Egypt

9.1.1 Sultan Hassan School

This school is located on the western side of Castle square, where the mosques of Sultan bin Anazar Hassan Nasr Mohamed ibn Mansour Kalawoon. The total area of the mosque inside the school is 17 thousand square meters. The design of the mosque shows a deviation in the main axis of the building, then a spin is found in the fountain of the mosque marking the center of energy, as organized by the design. Water energy is associated with effervescent energy, which is covered by a bulbous dome forming more than a half-spherical shape. Accordingly, negative green energy is removed by eliminating the harmful vertical quality of the energized water (Ahmed et al., 2021).

Figure (48) shows the type of overlap between the mosque building blocks. The overlap is illustrated in the sky brides, as also shown at the end of Figure (49). This overlap generates the energy, as organized by the design of the block building (Abdallah, Makram and Abdel-Azim Nayel, 2021).

9.2 Modern Buildings

9.2.1 Renewable Energy

In a mixed-use complex of buildings in Cairo, the design of roof gardens provides clean energy to the buildings. Central Avenue is the backbone of the compound, as the distribution of residential apartments is in the form of rectangular buildings in the U-shape branching out on both sides of the avenue. It was a form of anti-aliasing U arrangements at the interfaces of the buildings, where the surface levels of the housing cover overlapping layers of the e-low glass and white stone surface have garden hanging balconies, whereas the commercial facades have different forms of interfaces. The

entire ceiling depicts a garden community, where these gardens are superficially gathered. There are also groves, swimming pools, and areas for exercise, in this mixed-use complex. In order to mitigate the environmental impact of the building to restore part of its waste, soiled water surfaces are provided and sustained by a grid system like a second skin of steel and white cables, which consists of optical cells and thermal tubes, hold the vertical gardens.

9.2.2 Bio Geometry Energy

The use of a golden spiral shape along with the rotation rates is calculated, and the repetition of geometric movement is counted. In so doing, the emission of positive energy maintains balance and ejects negative energy.

10. Research Results

Energy-friendly architecture has two fundamental approaches to design. First, the label design shows the environment-based architectural design, which makes use of renewable energy. This type of design requires the use of the latest technology in the design techniques of internal and external space. Second, the simple plastic architectural design shows the designers' technical outlook and represents the building capabilities and adjustment of lines and masses in the design.

Therefore, the findings of this research signal the following advantages:

1. the design should reflect the harmony between the internal space components and vital human energy, by increasing internal voids.
2. the urban-like style of the design might be deficient, as the soil, upon

which the building is established, can have negative effects on the physical and mental health. This might be due to the negative energy regions of the earth. Thus, site selection should be well examined before carrying out the design.

3. architecture is the art of designing buildings of multi-purposes, such as houses, companies, or hospitals.
4. energy conservation and consumption are important research areas, which need to be utilized to reduce energy use.
5. the study of architecture has insights into the effective distribution of furniture, for releasing the optimal energy flow and maintaining balance within the architectural space. Therefore, the use of plants reduces pollution and heat.
6. recycling and using water to irrigate plants and the environmental landscape of the buildings is necessary for energy conservation. This could be achievable by using renewable energies and exploiting natural sources of lighting and ventilation.

11. Research Recommendations

1. Raise public awareness about environment-friendly architecture technology via media and publishing house fliers. This is feasible by circulating scientific and architectural magazines, architectural research and studies, software, scientific and cultural symposia, and by attending local and international exhibitions and conferences in Egypt. This would

develop the idea of environmentally internal space designs.

2. It is necessary to have teamwork specialized in all disciplines related to the architecture and environment. This would lead to a more effective examination and application of the integration of these two fields.
3. Local furniture producers have to understand the significance of energy-based designs. This would be reflected in the elements of furniture design, such as the shape, color, texture, light, and material, which can effectively emit positive energy in space. Therefore, collaborating professional researchers in the fields of environment and architecture with furniture designers and producers is another local research area, which needs more implementations.
4. The basics of environmental designs should be well explained and widely discussed, by referring to effective global applications in which solutions to environmental problems have been carefully provided.
5. Enhance universities' exchange of information and experience, in the field of sustainable architecture and environment-friendly designs, to help researchers publish and get promoted. In addition, university students' academic and professional skills would be developed, by doing activities and projects related to the field of environment-friendly architectural designs, which optimize energy uses by producing creative designs of internal space.

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