



مهندسون استشاريون

م د ا د #39

MEDAD

Architects & Consultant Engineers

FALL EDITION

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ABOUT MEDAD:

Medad is a creative design office providing architectural, urban and interior design along with project management and furniture procurement services for clients across the globe.

We design innovative retail, residential, hospitality, office and integrated mixed-use developments, with a focus on the people who use them. Our office is committed to creating unique and memorable destinations – projects and places that enhance their surroundings and improve the lives of those who populate and move through them daily.

Medad thinks globally but acts locally. We believe design should be timeless and inspiring yet practical for both their owners and occupants. We imagine things from both the outside to the inside and the inside to the outside. Our special expertise is the interlocking of the architecture to the interior design. With creativity and modern thinking we realize projects which stand out and the result is perfectly tailored to the user.

Medad has been part os the arcitecture community and engineering consulting for 34 years with a rich history of collaborations and ever enriched artistical, technical, and professional capabilities.

Medad also established several entities and sister companies (Egyptian Company for Building Industry "Madina", Arabian Wood industries Co. "Araek", "Madar" Project Management, United Group of Wood Industry "khashab Khan", TORATH for construction and urban development, fNON for the wood industry and finally AlMayan for handmade products). with a continued creative activities and products with a high degree of excellence.

Medad's brances extend to several countries including Saudi Arabia (Riyadh, Jeddah), Qatar (Doha), UAE (Ras Al Khaimah), Libya (Tripli), and finally Kenya (Nairobi).

Medad senior staff's accumulated experinces are being passed on through an educational process, whether lecturing or arbitration projectsin various Egyptian universities such as Cairo University, American University in Cairo, Arab Academy for Science, Technology & Maritime Transport, and Modern Sciences and Art University (MSA).

MEDAD NEWS

افتتاح فرع جديد لشركة مداد بالمملكة السعودية

تم بحمد الله افتتاح فرع جديد لشركة
مداد بالمملكة العربية السعودية،
تحت اسم مداد العمران للاستشارات
الهندسية

مداد العمران
MEDAD ALOMRAN

NEW PROJECTS

- أسند إلينا تطوير فيلا
خاصة

- تم التوقيع على عقود
مولات جايد بالقاهرة
الجديدة

- أسند إلينا تصميم
مركز النور الإسلامي بشمال
كارولينا في الولايات
المتحدة الأمريكية

MODULES
EGYPT

مداد توقع عقود شراكة مع شركة Modules Egypt

تفتخر شركة مداد بإعلان تحالفها مع شركة
Modules Egypt وإتمام تعاقدات الشراكة

NEW DEVELOPMENTS Site - Sawary Compound - Alexandria



AL-TAIF HOTEL
Taif, KSA
فندق الطائف
الطائف، السعودية

MEDAD'S COMMUNITY:

The directors and senior staff of Medad bring many years of collective experience to every project – we know what works. At the same time, we capture emerging trends worldwide and incorporate the best new ideas into our designs on a continual basis. Working with many of the world's strongest developers, designers, and retailers, we treat each new opportunity as a collaborative exploration, with the goal of meeting the expectations of our clients with added-value of our clients and our projects' end users.

We believe in investing in a team of strong collaborators and supporters of one another. Our process is an open studio where input and comment is sought and considered from all of members of our team guided by a strong design lead. Nurturing a creative atmosphere and drawing on a diverse and experienced team ensures for effective and timely results.

SHORTLISTED

مصنف في القائمة المختصرة

www.medadce.com

RETAL MOSQUE COMPETITION Dammam, KSA

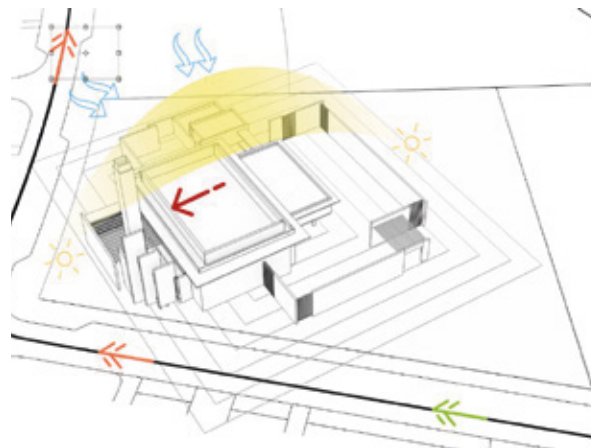
مسابقة مسجد ريتال الدمام، السعودية

This futuristic Mosque design was shortlisted for the Retal Mosque competition, managed by the Abdullatif Al Fozan Award for Mosque Architecture.

The competition was based around a plot of 3530 m² in Damam, Saudi Arabia. Medad sought to establish a strong connection between the mosque and society... thus, the mosque was designed to be a mirror that reflects the revelations and Prophet's guidance in the form of design lines.

Each line in the design represents a prophetic hadith, and as we follow these lines, we follow the hadith as guidance and thought, and inhabit its body, soul and spirit.

The design's treatment was then made to ensure this message. The prayer rows were made parallel to the walls, and dedicated circulation corridors bisected the prayer areas neatly. The design also made sure to fully utilize environmental factors such as natural lighting and air circulation to provide the most comfortable experience.



شاركت مداد مهندسون استشاريون في مسابقة ريتال لتصميم المساجد التي أقامتها جائزة عبداللطيف الفوزان لعمارة المساجد. وقد تم اختيار تصميم مداد ضمن مشاريع القائمة القصيرة

يقع هذا المشروع بمدينة الدمام بالمملكة العربية السعودية على مسطح أرض مساحتها 3530 م² وقد سعت مداد في هذه المسابقة إلى تأكيد رسالتها في أهمية ربط وتكوين علاقة قوية بين المجتمع والمسجد وتوفير البيئة المثلى للمستخدم ليزداد تعلقه واتصاله بالمسجد

فصمم المسجد ليكون مرآة تعكس حروف الوحي والهدي النبوي في صورة خطوط تصميمية فصار كل خط في التصميم يمثل حديثاً نبوياً، فنبتع الحديث هدياً وفكراً، ونسكنه روحاً وجسداً

وقد عالجت مداد المشكلات التي قد تؤثر على اكتمال هذه الصورة كميل الصفوف وقطعها وحركة المصلين داخل المسجد واعتمدت في التصميم على استغلال أكبر قدر من العوامل البيئية المحيطة بما يضمن أفضل درجة من الإضاءة والتهوية الطبيعية ومعالجة درجات الحرارة العالية في الحيزات المختلفة



OTHMAN CITY Ismailia, Egypt

مدينة عثمان الاسماعيلية، مصر

The project is located in Ismailia, and lies along the governorate's projected urban expansion axis. The scope of work was Conceptualization and Schematic design. The total land area was initially 450,450 m², though after analyses and concept developments it was proposed to increase this area to 526,495 m² to fulfil the design effectively, and fully take advantage of the adjacent highways.

The design concept was found by studying and analysing the original development plans of the area made in 1863. Mimicking these original plans' unique footprint will help restore the region's traditional visual identity, while conforming to the project's contextual, beauty, social, and economical goals.



02



يقع المخطط في شمال مدينة الاسماعيلية، على محور النمو المستقبلي. مجال العمل من قبل مداد كان ابتكار الفكرة التصميمية و رسم المخطط العام للمجمع

كانت تبلغ مساحة المخطط 450,450 م² في البداية، لكن بعد التحليلات للموقع و الفكر المبدئي تم اقتراح زيادة المساحة لتبلغ 526,495 م²، حتى يمكن تنفيذ الفكرة التصميمية بشكل أفضل، و لإستغلال الطرق السريعة الموازية بأكثر ما يمكن

الفكرة التصميمية وجدت بعد دراسات عميقة عن الطابع العمراني لمدينة الاسماعيلية، و بالأخص مخططات النمو التي صنعت فى عهد الخديو اسماعيل عام 1863

بمحاكاة الطابع العمراني المميز للتخطيط الأصلي، نكون ساعدنا فى الحفاظ على الهوية المعمارية للمنطقة، مع مراعاة و خدمة الاهداف السياقية، و الجمالية، و الاجتماعية، و المادية للمشروع

WESH EL-SAAD COMMERCIAL HUB Sohag, Egypt

مركز وش السعد التجاري سوهاج، مصر

This new commercial workshop center is slated to be built in Akhmim city, Sohag. The 6246 m² project is to become a cultural hub of the region, with workshops and vendors that promote and service the artisanal culture of the local residents.

The project entrance leads directly to a central spine. The spine is then broken into distinct courtyards for each activity type, complimented by the arcade that runs along the sides that serves as both shade and an extension of the shops.

From agricultural and animal products to artisanal workshops and an entertainment theatre, this hub is designed to service every aspect of the local culture.

As such, the project is designed to mimic a typical Egyptian alleyway, creating an authentic experience.

The project is also eco-friendly, using local materials and environmental solutions to minimize energy costs.



تقع أرض المشروع فى مدينة أخميم فى سوهاج. المشروع يبلغ حجمه 6246 م² و مصمم ليكون مركز حرفى و تجارى، يخدم السكان المحليون

باعتبار هذا الغرض، تم تصميم المشروع لكى يحاكي اسواق الحارة المصرية. المشروع عبارة عن ممر رئيسي محوط بممرات معقودة الواجهة، التي توفر الظل و امتداد للمحلات. الممر منقسم الى ساحات تخدم الأنشطة الإجتماعية و المحلية

المشروع ايضا مصمم ليكون صديق للبيئة، من طريقة البناء و الخامات الى المعالجات البيئية

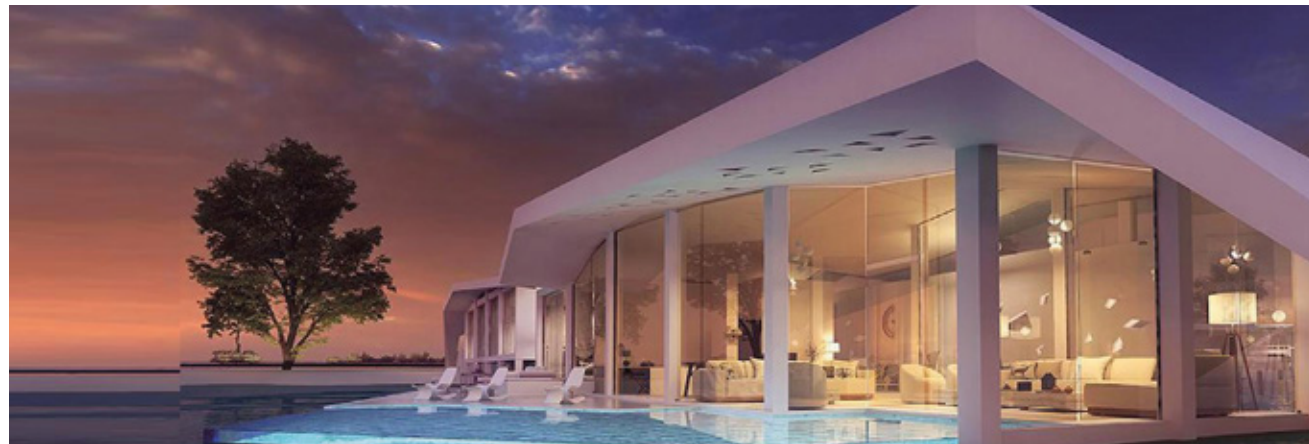


IL MONTE GALALA BEACH HUBS & CABANAS Ain Sokhna, Egypt مراكز شاطئ و كبائن المونت جلاله العين السخنة، مصر

Monte Galala project is one of the largest and most distinguished projects in Ain Sokhna from Tatweer for Egypt. Monte Galala Resort Ain Sokhna is the first mountain recreational resort in Egypt and also a global health resort.

The area of Monte Galala project, Ain Sokhna, covers an area of 530 acres, that is, the project area is 2,2 million square meters, with a beach length of 1300 meters, and a building rate of approximately 15 percent, and the rest is services and landscapes. Covered with lush green grass, 220 square meters above sea level, making all residential units within the resort enjoy a distinctive view of the charming landscape.

Medad Consultant Engineering was acquired to contribute to the project, by providing designs and consultations for several of the project's beach hubs, as well as beachside cabanas.



يعد مشروع المونت جلاله من أكبر المشروعات وأكثرها تميزًا في العين السخنة من شركة تطوير مصر. منتجع المونت جلاله العين السخنة هو أول منتجع جبلي ترفيهي في مصر وأيضًا منتجع صحي عالمي.

تبلغ مساحة مشروع المونت جلاله العين السخنة مساحة 530 فدان أي تبلغ مساحة المشروع 2,2 مليون متر مربع ، بطول شاطئ 1300 متر ، وتبلغ نسبة البناء حوالي 15 بالمائة

الباقى مكون من خدمات ومناظر طبيعية. مغطاه بالعشب الأخضر المورق على ارتفاع 220 متر مربع فوق مستوى سطح البحر ، مما يجعل جميع الوحدات السكنية داخل المنتجع تتمتع بإطلالة مميزة على المناظر الطبيعية الساحرة

ساهمت مداد للاستشارات الهندسية في المشروع ، من خلال تقديم التصميم والاستشارات للعديد من مراكز الشاطئ في المشروع ، وكذلك الوحدات الأقرب لشاطئ البحر .

Salford Bridge
Manchester, England
کوبری سالفورد
مانشستر، إنجلترا

OUR VALUES:

Collaboration is central to our creative process.

We believe in the power of people working together creatively. We actively engage with clients, consultants and our staff, encouraging open discussion throughout all phases of a project.

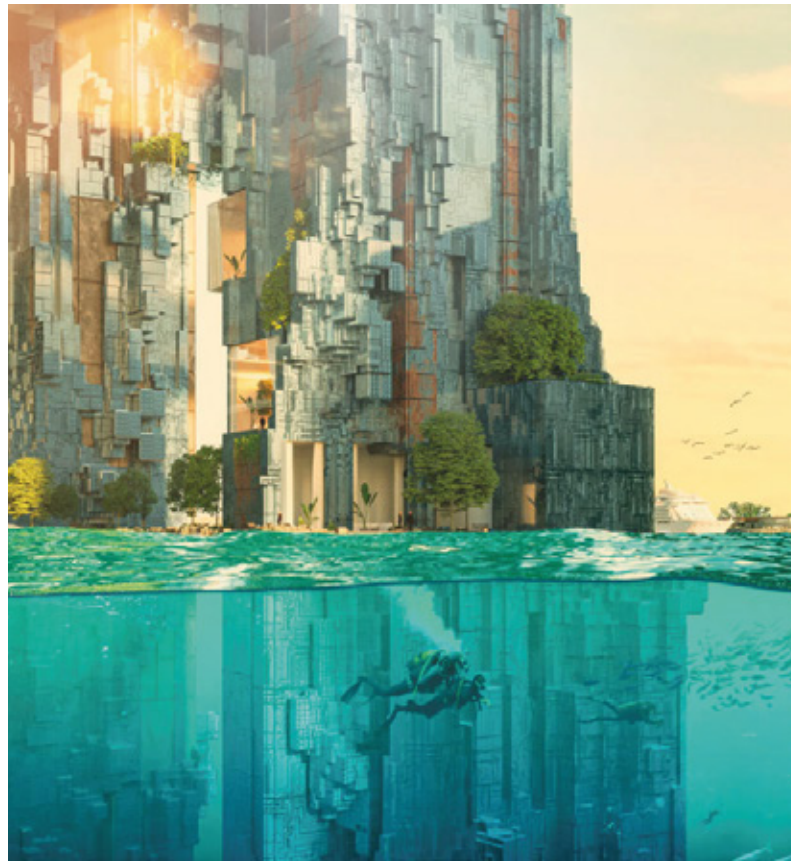
We build relationships – care about our clients.

“Our word is our bond” and it is the guiding principle in all of our client relationships. This enables us to add value significantly and to build trust with our clients and partners.

Our designs are based on simple and elegant solutions, with the client in mind.

Our design approach is sensitive to location and culture, often combining the latest thinking with the local Islamic requirements to create truly inspirational spaces.

THE LINE - KSA

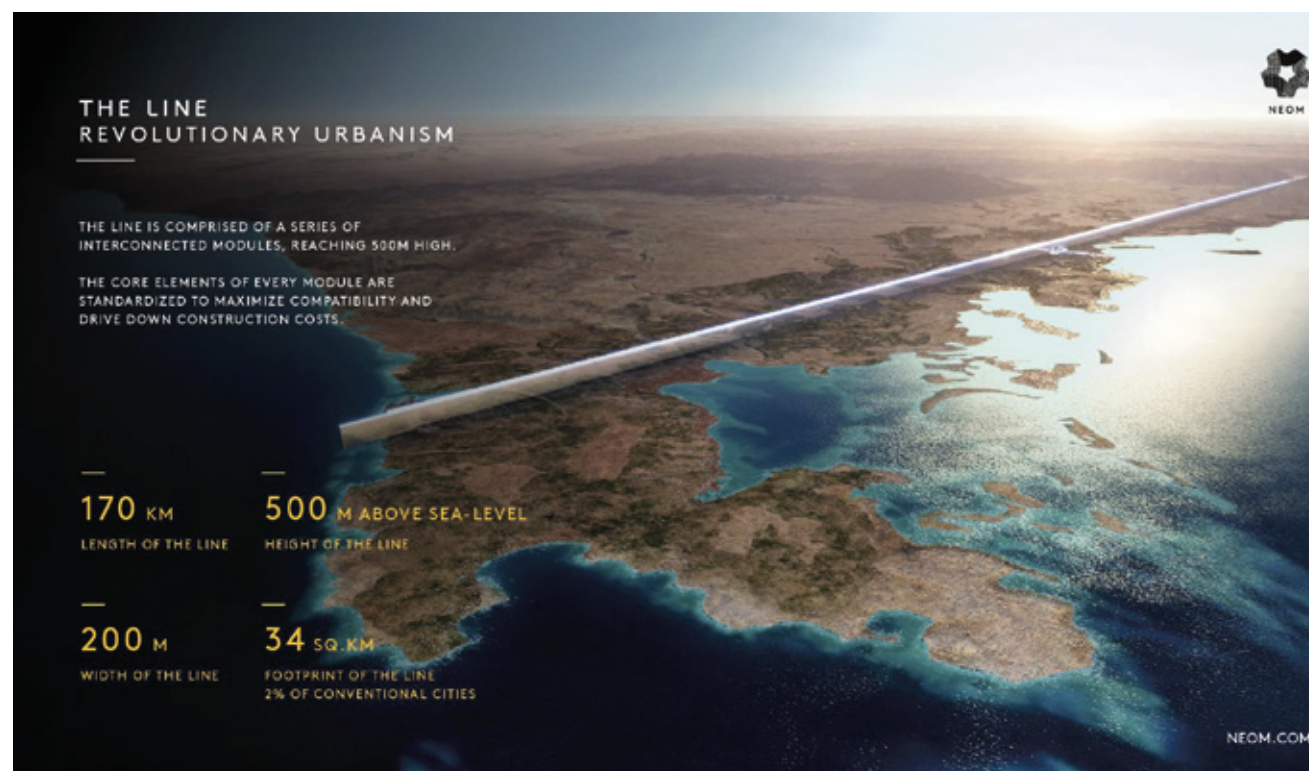


Mohammed bin Salman, Crown Prince of Saudi Arabia, has unveiled plans for a 100 mile long linear city called The Line. The city would include a series of walkable communities for a million people with no cars or streets. The project locates essential facilities within a five-minute walk of housing, connected "modules" linking the Red Sea coast with north-west Saudi Arabia as part of the NEOM city-state.



The visuals reveal two parallel wall-like structures enclosing an open area between them. On the outside, the Line will be clad in a mirror façade, that provides its unique character and, according to its planners, a more subtle insertion in the natural landscape. The interior will be built to accommodate buildings, layers of public parks, pedestrian areas, schools, homes, and places for work. The concept is described as "Zero Gravity Urbanism" by its creators. Rising 500 meters above sea level, this structure would become the 12th highest skyscraper in the world, and by far the longest.

The linear mega-city proposal would be entirely powered by renewable energy. Noting the project's goals, bin Salman said that the entire development will be net-zero and pollution-free. The proposal would supposedly preserve "95 percent" of NEOM's natural wilderness with transportation needs met by an underground train system. NEOM was first announced in 2017 as a futuristic, \$500 billion "free zone" centering on clean-energy and new modes of mobility. Construction of The Line will start in the first quarter of 2021, and the city is expected to house one million residents by 2030.



Private villa
Al Shawqia, KSA
فيلا خاصة
الشوقية، السعودية

DESIGN PHASES:

We aim to make the design process enjoyable for our clients, interpreting their ideas and developing a finished product meets their expectations with added-value.

Pre-contract design stages:

- Briefing
- Concept Design
- Schematic Design
- Detailed Design

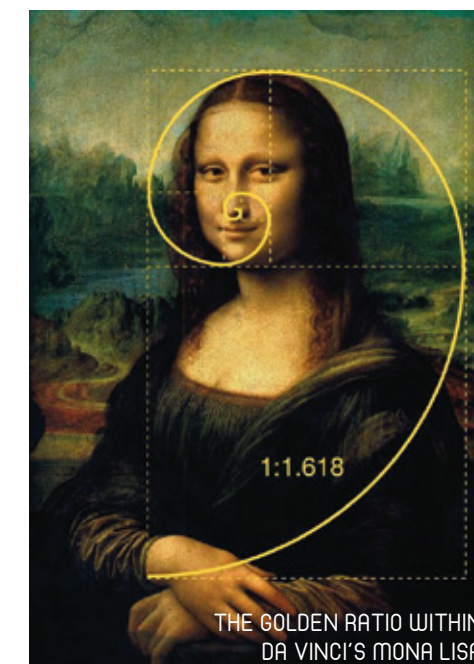
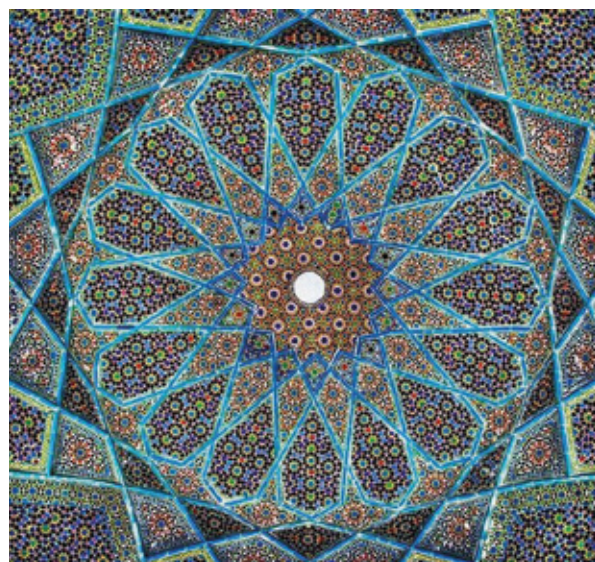
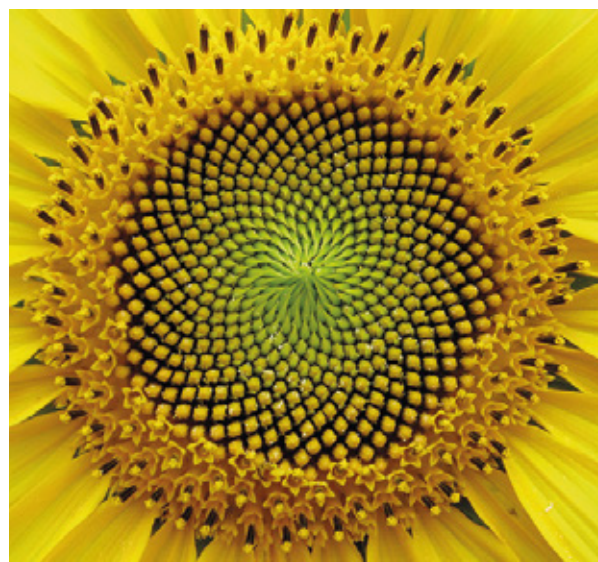
Post-contract construction stages:

- Tender
- FF&E Procurement
- Project Supervision

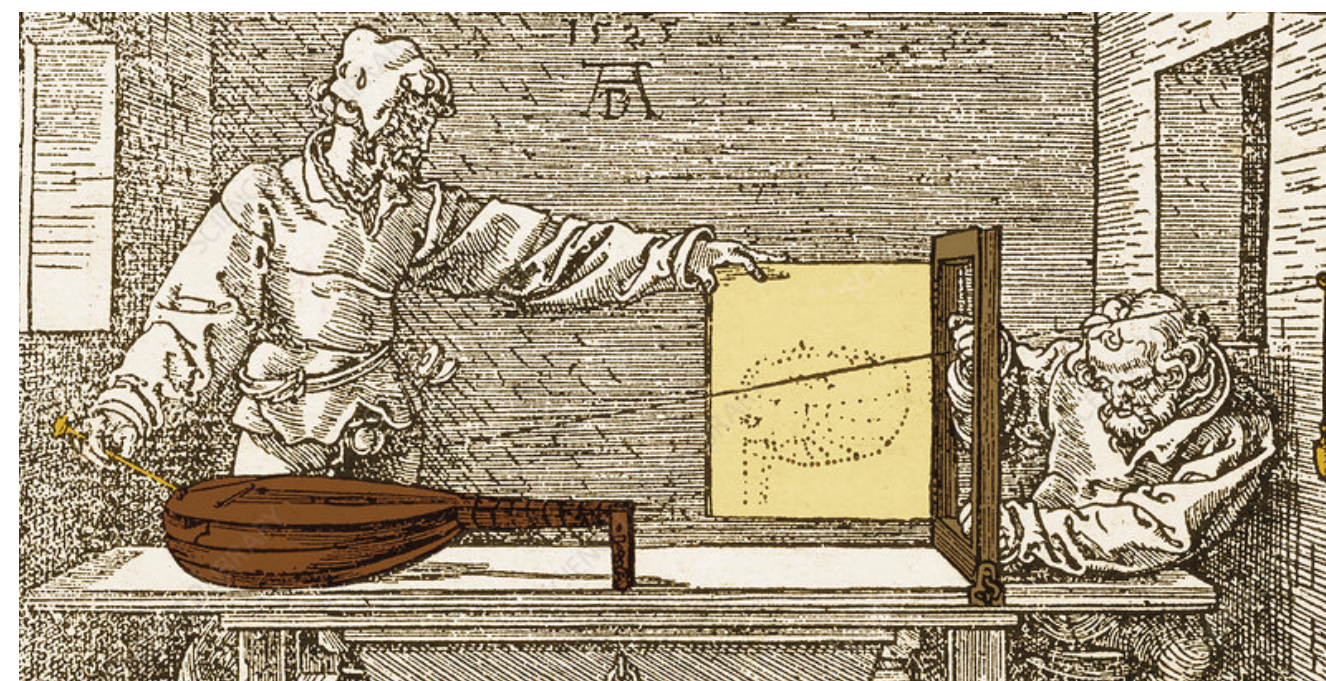
ART AND MATHEMATICS: A TIMELESS RELATIONSHIP

QUATERNION JULIA SET
- ROD HALSTEAD

The world around us is full of relationships, rhythms, correlations, patterns. And mathematics underlies all of these. In fact, it's thought that the mathematical structure embedded in the rhythm and melody of music is what our brains latch on to, and that this is why we enjoy listening to it. It is perhaps not surprising then that there is a great deal of overlap between mathematics and the art that our brain finds so pleasing to look at.



Many cultures throughout history have celebrated mathematics as a sort of 'sacred beauty'. The ancient Greeks' architectural forms were purely mathematical, while Islamic architects adorned their mosques with complex geometry to symbolise the natural beauty of creation. During the Renaissance especially, many Italian artists applied ancient mathematical concepts to their work, such as the "Golden Ratio" and the concept of perspective, both of which have influenced modern art greatly



THE DRAUGHTSMAN AND THE LUTE - ALBRECHT DÜRER - 1523



MC ESCHER: MASTER OF PERSPECTIVE

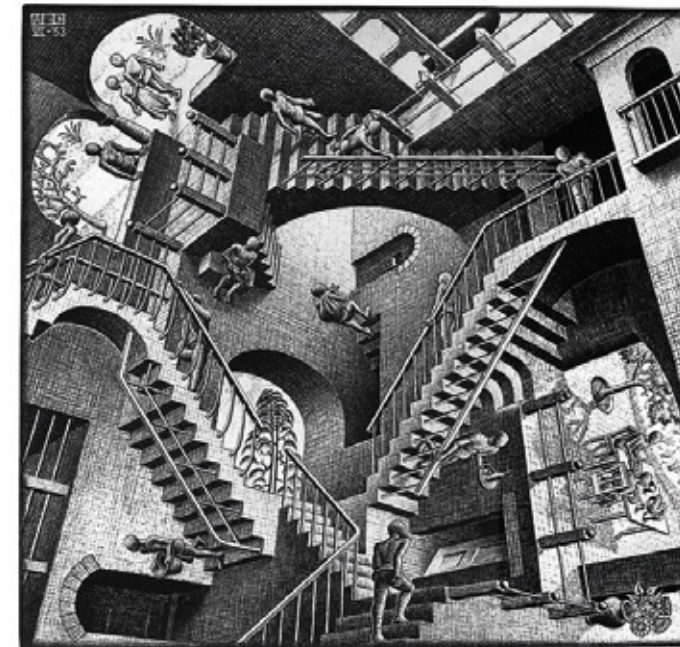
ADVENTURES IN
PERCEPTION

Maurits Cornelis Escher (1898-1959) created incredible mathematical art. Through repetition, geometry, perspective, reflection, symmetry, tessellation, light and shade, Escher sucked us into his pictures that challenge our brain's assumptions and perceptions. Unlike surrealists, for whom the other worldly is obvious at first glance, Escher's images become puzzling after closer examination.

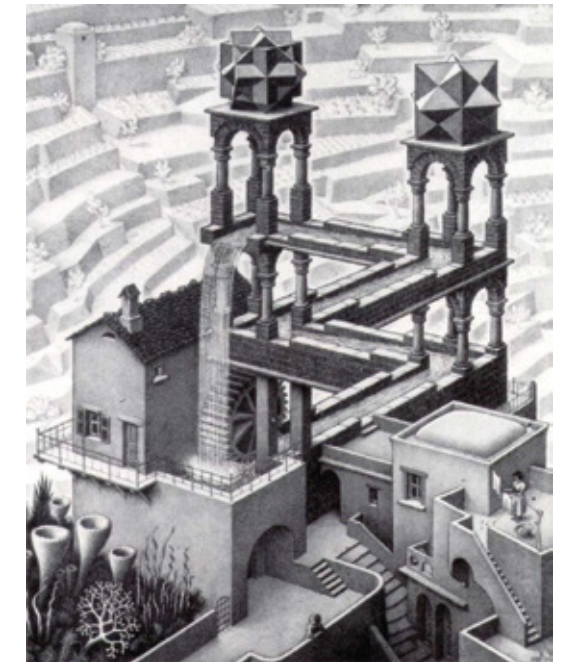
Escher, who started out as a graphic artist, brought art and maths together. His art added a human element to abstract mathematical ideas. Inspired first by the geometric art on the tiles at the Alhambra in Spain, and later by other visual illusions, like Roger Penrose's Impossible Triangle and the Möbius Strip, Escher became obsessed with regular, repeating patterns that continue seemingly ad infinitum. Maths can be beautiful – and Escher proves it.



HAND WITH REFLECTING SPHERE

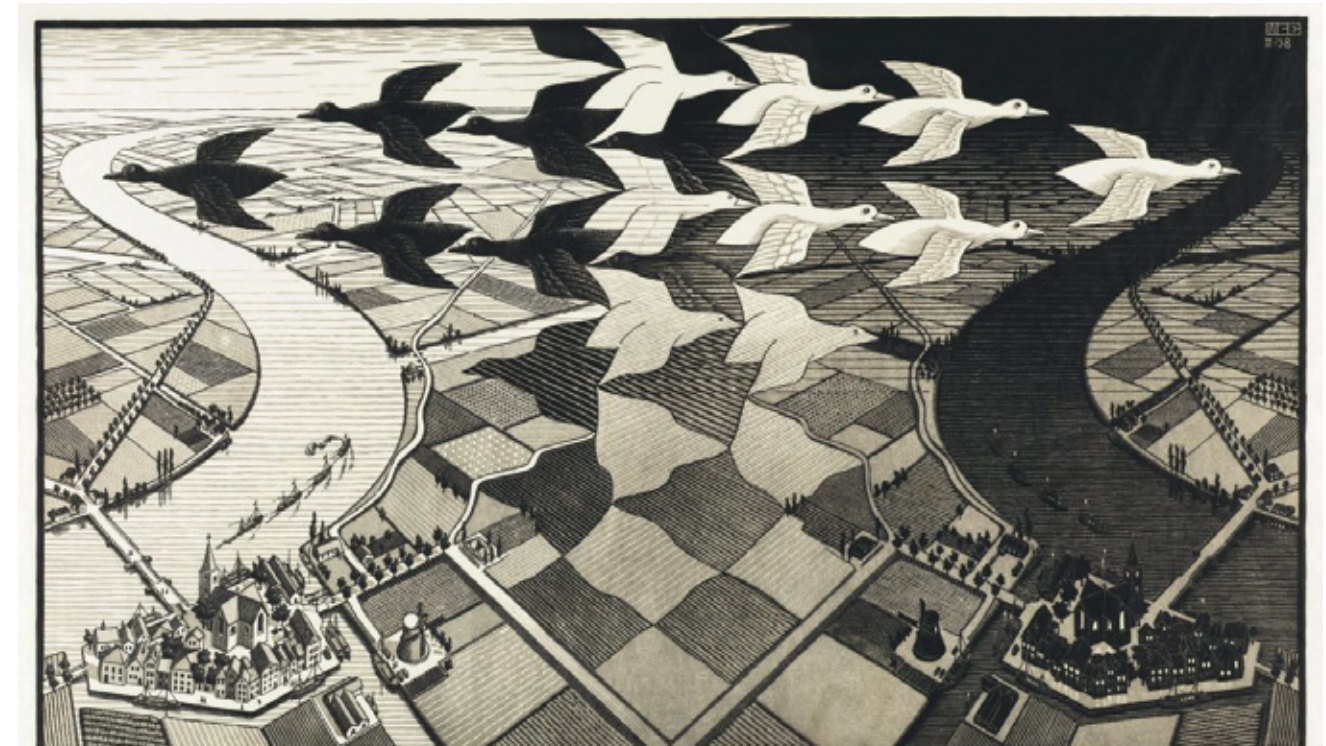


RELATIVITY



WATERFALL

His work went almost unnoticed until the 1950's, but by 1956 he had given his first important exhibition, was written up in Time magazine, and acquired a world-wide reputation. Among his greatest admirers were mathematicians, who recognized in his work an extraordinary visualization of mathematical principles. This was the more remarkable in that Escher had no formal mathematics training beyond secondary school.



DAY AND NIGHT

87c Plaza
New Cairo, Egypt
بلازا ج 87
القاهرة الجديدة، مصر

87c
Plaza

MEDAD'S VISION:

It's all about the people..

People are at the heart of what we do. Our culture is open and collaborative, and working in dynamic teams we inspire and challenge each other to achieve pioneering outcomes and service excellence for our clients. Our designers are committed to perform effectively in order to provide our clients with the ultimate in well-conceived, innovative design solutions.

We foster a highly creative, collaborative work environment at our office and constantly infuse our various teams with developing young design talent. Our creative staff is comprised of exceptionally talented design professionals who have embraced Medad's philosophy of design.

CARBON CONCRETE: THE BUILDING MATERIAL OF THE FUTURE?

This newly developed type of concrete offers the same structural strength as concrete reinforced with steel rebar but uses far less concrete, researchers claim.

The concrete is strengthened with carbon fibre yarn, which is made by binding together many ultra-thin threads of near-pure carbon crystals using a process of thermal decomposition called pyrolysis. These yarns are used to create a mesh that the concrete is poured onto.

The carbon-fibre mesh is rust-proof, unlike steel, meaning carbon concrete has a longer lifespan than typical reinforced concrete. This also means structures can be



much thinner, since most of the thickness of steel-reinforced concrete is due to the need to waterproof the rebar to combat oxidization.

With carbon, the strength is five to six times stronger compared to reinforced concrete. The service life is also significantly longer.



Carbon concrete could contribute to more flexible and resource-saving construction processes, and switching to carbon concrete could reduce the CO2 emissions from construction by up to 50 per cent. Despite being much thinner it is still able to carry heavy loads.

Carbon concrete is four times lighter than conventional concrete, allowing for more delicate and aesthetically pleasing designs. Reinforced concrete costs about €1 per kg in production, while carbon concrete costs around €20 per kg. However these figures do not absolutely reflect reality: Carbon concrete allows for a material savings of about 75 percent, therefore reducing the

total price of a construction project. The costs balance out in connection with the longevity, strength and corrosion resistance of the material. The world's first carbon concrete building is being erected on the Dresden campus, Germany. With 220 square meters, it is a test work of the research project "C³" - Carbon Concrete Composite".



Qurtuba Compound
Riyadh, KSA
مجمع قرطبة
الرياض، المملكة السعودية

OUR SERVICES:

Medad is a full-service interior design firm known for its luxury, sophistication, and comfort in the world of architecture and interior design. Our skilled design team specializes in creating unique spaces. We do not have a predetermined style. Our goal is to create beautiful custom design that fulfills our client's needs and reflect their unique personality.

Services:

- Architecture
- Interior Design
- Urban Design
- Project Supervision
- ff&E Procurement

Sustainable Materials In Construction

With the alarming increase in housing crises and global climate change, it is essential to reduce our energy consumption now more than ever. Therefore companies are looking towards more sustainable building material alternatives.

This includes a range of eco-friendly materials that don't harm the environment, whether in their production, use or disposal, that can easily be recycled.

These green materials reduce carbon emissions significantly and save energy costs.



Cork

Cork is a very robust material. It is often used in floor tiles and insulation sheets for its resilience and acoustic properties. Its shock absorption quality also makes it ideal for sub-flooring. It is also fire resistant -especially if untreated-. It burns without a flame and does not release toxic gases.

Lastly, cork is near impermeable, ergo it doesn't retain water or rot which makes it ideal for insulation.



Recycled Steel

Steel is 100% recyclable and significantly reduces the ecological impact of new construction. A frame made from recycled steel requires the equivalent of just six scrapped cars.

Mining, heating and shaping products made from aluminum and steel requires a lot of energy, but properly and efficiently reusing or recycling them into new products lowers the energy used, and makes the material more sustainable.

The recycled metal can last very long periods of time without requiring frequent replacements, and it manages to retain all the properties of regular steel, at a fraction of the cost.



ferrock

It's a relatively new material, which uses recycled materials such as steel dust or ferrous rock leftover from industrial processes.

It creates a concrete-like material, stronger than the concrete itself. It traps and absorbs carbon dioxide as part of its drying and hardening process.



Timbercrete

Timbercrete is an Eco-friendly building material made by mixing sawdust and concrete. The sawdust replaces the parts of the concrete that are most energy-intensive to produce, which makes timbercrete a green material.

It is lighter than concrete or clay, and therefore much easier for transport. Timbercrete can be used in the form of blocks, bricks and pavers.



Tesla Solar Tiles

Solar roof shingles are small, custom shingles designed to blend in almost seamlessly with traditional roof tiles.

Not only are these shingles aesthetically appealing, but they function both as solar panels and as durable roof tiles — so your roof will still be protected from the elements as it absorbs sunlight for energy use.



Mass timber

Mass timber serves as a viable substitute for traditional construction materials like steel and concrete, which have a higher carbon footprint. Using mass timber instead of conventional building materials can significantly reduce emissions.

EGYPT

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