



2008-2010 COUNCIL

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Newsletter

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Contents

Chairman's Message	1-2
SCL (S) Calendar of Events	2
Networking Cocktail	3
Interactive Time Management Using 4D Visual Modelling	3
Adjudication - An Update	4
Rain, Hail or Sunshine?	5
China Construction Projects	6-7
Engineering 101 for Non-Engineers (2nd Run)	8
About Construction and Construction Law	9-10
List of New Members	11

Chairman's Message



The current Council's 2-years term will shortly be coming to a close as we approach the 2010 Annual General Meeting on 3 August 2010.

2010 ANNUAL GENERAL MEETING – 3rd AUGUST, 2010

There will be a full council election at this AGM as the current Council's 2-year term draws to an end.

As at the last AGM, the Chairs of each of our seven standing committees will present individual reports to the members, in addition to reports from the Chairman, Treasurer and Secretary.

For those of you who are interested in the activities of the Society and would like to participate more actively and fully, the AGM offers you the opportunity to do so.

This AGM will also see the new nomination and election procedures that were approved at the 2008 AGM coming into force. Members will have received details of this together with the Notice of the AGM. Under the revised provisions, nominations must be made no later seven days before the AGM and all eligible nominations will be notified to members and posted on the Society's website not later than three days before the AGM.

I look forward to seeing as many of our members as possible at the AGM as we elect a new Council for the 2010 - 2012 term.

SIAC – SCL CONFERENCE

This joint conference with the SIAC on 17 September focuses on construction disputes in Asia and presents an important new collaboration for SCL.

We are fortunate to have Sir Vivian Ramsey (English High Court Judge and Joint Editor of "Keating on Construction Contracts") deliver the keynote speech, as he did at last year's SCL–Law Society Construction Law Conference.

The SIAC-SCL Conference brings together many well-known names from both Singapore and the region. It presents an excellent opportunity to listen, comment and interact with some of the leading commentators in the industry.

I would like to acknowledge with much thanks the work of Karen Fletcher, Vice Chair, SCL and Chair of our Professional Development Committee and Johnny Tan, Chairman of our External Relations Committee in nurturing this from inception to the actual event. They have been actively and heavily committed these last few months in putting together what, I am sure, will prove to be an excellent conference.

SOCIAL

Our social and networking programs have always provided a pleasant break from the much headier and weighty aspects of our professional development programs.

Our 1st 2010 networking cocktail on 21 April at Upstairs @ Harry's at Boat Quay proved a welcome respite as many members and their guests mingled and networked. We saw a very good turnout with many members and their guests in attendance.

One of the key social highlights of the Society's calendar has been the SCL Annual Dinner, an event inaugurated last year. Those who attended last year's event will know it was a tremendous success, with seats being sold out weeks ahead of schedule.

This year's Annual Dinner has proved no less successful with places for the 28 July

Chairman's Message *Cont'd*

Dinner being sold out more than a month before the event.

On behalf of the Council, I wish to acknowledge the tireless work of Audrey Perez, Chair of the Social Committee in organizing this event, once again this year. I also wish to record my gratitude to our three sponsors who have returned after sponsoring the Annual Dinner last year. My thanks to David Langdon & Seah Singapore Pte Ltd, Dragages Singapore Pte Ltd and Pinsent Masons LLP.

The Council and I look forward to the opportunity to meet our members at the Annual Dinner. I hope that this event will feature as a regular part of the construction industry's social calendar in Singapore.

CONSTRUCTION LAW 101

I mentioned in my Chairman's report at last year's AGM that the Professional Development Committee was looking at the possibility of a training workshop for non-lawyers, to complement the Engineering 101 Workshop that has now been running successfully for two years.

I am very pleased to inform members that this program will be available in early November as a series of four evening lectures over two weeks.

This course is designed for non-lawyers in the construction industry interested in the basics of construction law principles. It will review contractors and employers' contract obligations, and legal issues relating to variations, extension of time, delay and liquidated damages, amongst other topics. More details will be made available shortly.

CONCLUDING REMARKS

These are some of the highlights in the last few months since my message in the March 2010 Bulletin.

I will be delivering a fuller and more detailed report at the AGM in August.

I end this message by looking forward to your continuing support as a new council comes into office shortly.

Your feedback and comments are always welcome, both on what we have been doing, as well as what we have not been doing, or on not doing right. You can email me c/o the SCL Secretariat [secretariat@scl.org.sg].

Mohan R Pillay

Chairman
2008-2010

CALENDAR OF EVENTS - 2010

No.	Date	Event
1	13 Jan 2010	Site Visit – Maxwell Chambers
2	9 Feb 2010	Dispute Boards - An Overview And Selected Experiences
3	2 March 2010	The Independent Certifier - Nineteenth Century Fiction, Necessary Evil or The Way Ahead?
4	2 March 2010	MOU Signing Ceremony
5	9, 11, 16 & 18 March 2010	Engineering 101 for Non-Engineers (2nd run)
6	15 April 2010	Adjudication: An Update
7	21 April 2010	SCL Networking Cocktail
8	19 May 2010	Interactive Time Management Using 4D Visual Modelling, A Methodology for Visual Programming
9	28 July 2010	SCL Annual Dinner
10	3 August 2010	Pre-AGM talk: The Architect at Work... Myth and Reality
11	3 August 2010	SCL Annual General Meeting
12	17 September 2010	SIAC-SCL Joint Conference: Construction Disputes Asia - Evolution or Revolution?
13	9, 11, 16 & 18 November 2010	Construction Law 101 Workshop

Networking Cocktail - 21st April, 2010



SCL (Singapore) had a Networking Cocktail on Wednesday, 21 April 2010, at Upstairs @ Harry's, Harry's Bar, Boat Quay. About 40 members and their guests attended the event and warmly gathered to network and mingle with fellow members, their guests and the SCL Council. After the Chairman, Mohan Pillay updated the audience on the latest news and future events of the Society, all enjoyed drinks, finger food and animated discussions till late hours. This particular event saw many non members newly arrived in Singapore express interest in joining the Society or attending its events. Our cocktail events have proven to be indeed an interactive and exciting networking platform for Construction and Construction Law professionals!

Interactive Time Management Using 4D Visual Modelling, A Methodology For Visual Programming - 19th May, 2010

Members and their guests were treated to an audio-visual presentation by Gordon Lynas of TBH Confluence on the use of 4-D visual modelling to illustrate graphically the proposed and actual evolution of projects during the course of construction. The technique is particularly valuable when analysing and providing expert advice in understanding the merits, validity and impact of Delays on construction projects.

Gordon discussed the use of 4-D Modelling programmes which technical engineering and construction experts have at their disposal in dealing with not just Delay analysis but also in presenting proposed construction methodology when submitting tenders for projects which allows parties to undertake scenario testing to determine the impact of changed construction methodologies on the project programme.

About 60 SCL members and their guests attended the talk which generated interesting and lively discussion on the use of 4-D modelling in contract procurement and management and dispute resolution. The session was chaired by Johnny Tan.



Adjudication – An Update - 15th April, 2010

Adjudication under the SOP Act in Singapore is now a well established procedure. Two recent decisions of the High Court prompted a timely review of the adjudication process here in Singapore. This talk was well attended, with close to 80 delegates.

Goh Phai Cheng SC addressed two pertinent questions in relation to adjudication in the Singapore context:

1. Should an adjudicator ‘rubber stamp’ a claim in the event that there is no payment response addressing the merits of the claim?
2. Should a respondent who is dissatisfied with an adjudication determination make use of the SOP Act review procedure or take the matter to the High Court?

The recent Singapore cases cited by Goh Phai Cheng were helpful in addressing these questions.

Michael Christie SC, who was visiting Singapore en route from Sydney to London, highlighted the relevance to Singapore of case law from Australia, bearing in mind that the SOP Act was modelled on the equivalent New South Wales Act and the Singapore High Court has referred to Singapore cases. Michael Christie addressed the same question of whether an adjudicator should consider the merits of a claim when the respondent has made no submission. He then addressed the concept of ‘breach of procedural fairness’ with respect to an adjudicator’s responsibilities.



Rain, Hail Or Sunshine?

An outlook for the Global Construction Market in 2011 to 2020



The last decade ended in rain and hailstorms. In 2007 to 2009, the world experienced the worst economic depression since World War II. Almost all industries were hit hard by the economic turmoil. Construction and infrastructure were no exception. Projects came to a halt and were suspended. There are signs that the global economy is recovering from the recession. It is expected that the global economy

will soon walk out of the rain, and see sunshine at the other end of the tunnel. In November 2009, Global Construction Perspectives and Oxford Economics gazed into the crystal ball, and published a report 'Global Construction 2020' (the 'Report') foretelling the growth and development of the global construction market in the decade between 2011 and 2020.

CONSTRUCTION ACTIVITIES IN DEVELOPED AND DEVELOPING COUNTRIES

According to the Report, the impact of the economic downturn was more severe to the construction market in developed countries than that in developing markets. The recession caused a substantial fall in the annual construction output in matured markets; in developing countries there was still growth in construction activities, although the growth slowed down from 11.1% p.a. in 2006 to an average growth of 0.6% p.a. in 2009. This sets the background for a quicker and stronger recovery of the construction sector in emerging countries than developed markets. In 2005, 65% of the global construction activities were in developed countries. This is expected to fall from 65% to 45% in the next decade with the rest of the global market share of 55% being taken up by developing countries. The most dynamic growth will be seen in places that are dawning. These include China, India, Asia Pacific, South & Central America, the Middle East, Africa and certain parts of East Europe. Construction activities in these places will double in size. An estimated growth of 110% representing 55% of the total global construction activities is expected. By contrast, a more modest growth of 35% is contemplated in developed countries. Hence, growth in dawning countries will make up more than half of the growth of the global construction market in the next decade. Faster and more dramatic growth in population in developing countries is the major drive behind the faster growth in construction and infrastructure.

In developed countries, on the contrary, slower population growth is expected. In places such as Japan, Germany and Italy, declined population growth is forecast. With a growing population, there will be more demands for residential construction as well as non residential and infrastructure facilities resulting in an increase in both residential and non residential construction. Secondly, following the severe economic downturn in the last decade, most developed countries are now faced with fiscal deficits and national debts accumulated from the past few years. These countries have tighter and more conservative budgets for the years ahead. By comparison, emerging countries have more flexible budgets, and are capable of and are also ready to invest

more in infrastructure. That said, most developed countries take priority in environmental protection and in counteracting climate change. Hence, despite the economic and budgetary constraints, they will still be willing to invest in environmentally friendly buildings and infrastructure to help reduce carbon emissions. It is predicted that these measures will give rise to construction activities in the next ten years.

CHINA & INDIA

The Report predicts that China will take the lead in economic developments worldwide. China will play a key role in the international construction market. According to the Report, by 2018, China will become the world's largest construction market overtaking the United States. It is also estimated that 19.1% of the total global construction output will be from China. Second to China will be India. The Report describes the growth in the Indian construction market as 'explosive' – a sharp and steep growth curve is expected. The Report anticipates a double digit growth in residential and non residential developments. However, when compared to China, China's construction market will still be 3 to 4 times larger than the Indian market.

OTHER COUNTRIES

With respect to the other parts of the world, South and Central America will benefit from international sports events. Brazil is hosting the FIFA Soccer World Cup in 2014, and in 2016 the Olympics will be held in Rio de Janeiro. To support and accommodate these important international events, there will be lots of construction activities in Brazil in the short term until 2014. It is further predicted that by 2012, there will be an estimated growth of 70% in the construction markets of South and Central America comparing to the last decade. The construction industry in Africa has also benefitted from the FIFA SoccerWorld Cup which took place in June this year. The forecast is that construction activities will remain busy in the forthcoming decade. Nigeria is one of the most interesting countries for opportunity. The Report foresees the growth in construction activities in Nigeria as one of the fastest growing markets in the world. This is due to the increased oil production within the country which leads to rapid urbanisation of most of the areas in Nigeria. Improvement of infrastructure being a priority coupled with the increasing accumulated wealth indicates that construction activities will grow within the area. The recent financial crisis in the UAE has raised a few eyebrows. The Report opines that despite the recent downturn, there will still be positive growth in infrastructure in the UAE, although the growth will only be modest at about 4% of the market in China in 2020. In Europe, the east will outcompete the west. Russia and Poland will take the lead in growing the construction market in Eastern Europe. The Report foretells a 100% growth over the last decade in these areas. In particular, Poland is seen as one of the 10 fastest growing markets in East Europe.

CONCLUSION

It would seem that the violent economic tornado has passed, and the global construction market has survived it. Although different countries will take a different pace and scope in their recovery, the more important message is that the industry will resurrect soon! Of particular importance and excitement to us in Singapore and South East Asia is that the recovery will be led by emerging economies and that huge growth is predicted for China and India in particular.

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China Construction Projects - Contract Structure Options

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Even though the construction business in China has seen tremendous liberation after more than a decade of industry reforms, navigating the labyrinth of contract structures remains a huge challenge for many foreign investors. These contract structures on the surface appear similar to those in Singapore and yet are inherently different due to local Chinese regulations. This article gives a brief overview on how the major contract structures look.

TRADITIONAL CONTRACT STRUCTURE

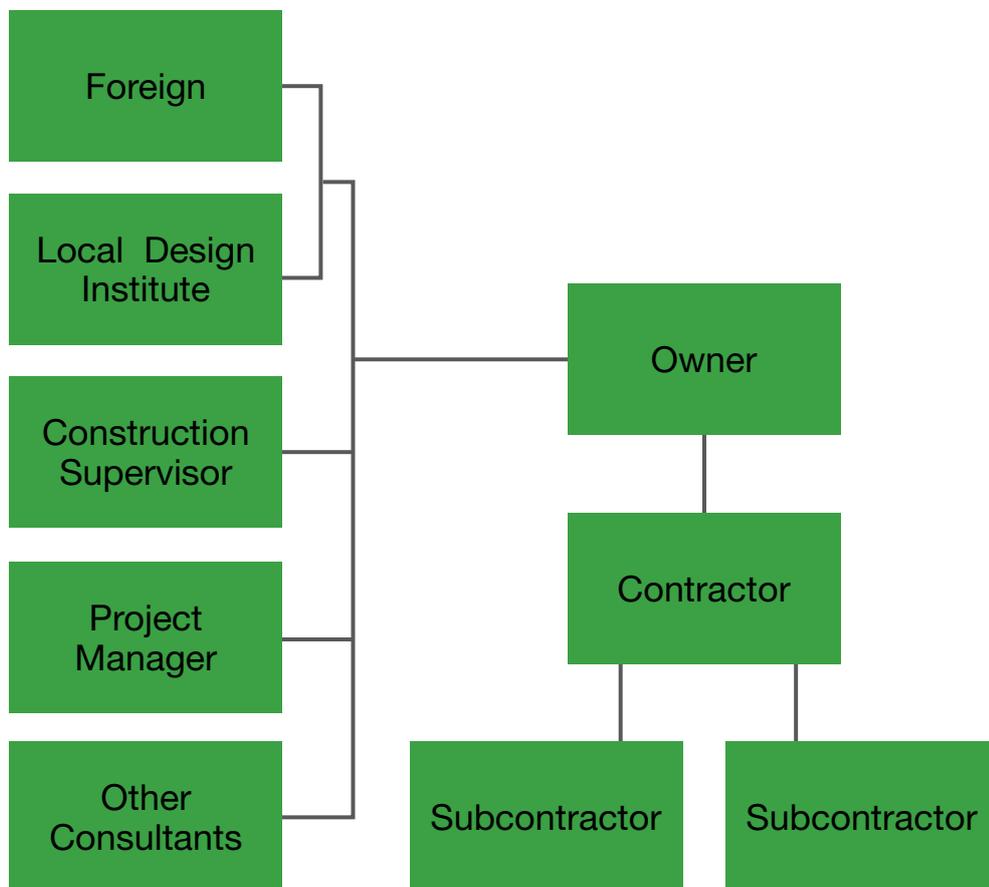
There are several ways of structuring a construction contract in China. Whether they are suitable depends very much on the nature of the project, the experience and resources of the parties involved, commercial, practical and financing considerations, as well as constraints imposed by Chinese law.

The traditional contracting structure is by far the most prevalent contract structure in China. In this structure, an owner engages a design consultant to design a facility, then separately engages a contractor to do the construction works. Thus the owner has tremendous control over the design. The downside to this structure, however, is the owner's risk exposure due to interfacing between the designer and the contractor.

When using this structure, the owner is required by Chinese law to engage a licensed local design institute. Local regulations also set out mandatory minimum fee scales for certain types of design work. Notwithstanding these restrictions, opportunities abound for synergistic collaborations between foreign designers and local design institutes.

DESIGN-AND-BUILD

Some owners, however, prefer the Design-and-Build (D&B) contracting structure in which a contractor is engaged to design and construct a facility. D&B contracts are "turnkey" contracts or, in the case of large infrastructure and energy projects, Engineering, Procurement and Construction (EPC) contracts. In this structure, the contractor has single-point accountability for both the design and construction of a facility. An owner may engage a contractor with qualifications in engineering design and construction as the EPC contractor for the entire project. Engineering companies with the relevant



Traditional Contract Structure

China Construction Projects - Contract Structure Options *Cont'd*

engineering design qualifications but lack the qualifications to carry out construction works, can still be engaged as EPC contractors; they simply subcontract the physical construction works to a local contractor. In China, however, there are legal constraints on subcontracting. Despite this, there are opportunities yet for foreign consultants and contractors in EPC contracts.

Advantages and Disadvantages – Design and Build Contract Structure

Advantages	Disadvantages
<ul style="list-style-type: none">• Single-point accountability.• Fixed contract price – a contractor's right to claim for additional money is usually limited.• Guaranteed completion date – the contractor guarantees a completion date and pays delay liquidated damages if it fails to meet the deadline.• Bankability – for non- or limited financing, lenders are familiar with the contract structure.• Increased efficiency – contractor and designer pool resources together.• Less opportunity for contractor claims on directions issued by the project company.• Higher design standards – a contractor is usually required to comply with higher “fitness for purpose” standards in design rather than the standard of care required of a design professional.	<ul style="list-style-type: none">• Increased contract price – accounts for cost of risks.• Limited control over design – a contractor may increase profits by under-designing or designing to just meet minimum requirements.• Improper risk allocation – risks may not be well placed for optimal management.• Increased cost of tendering – more time is required to evaluate the different design proposals.

NOVATED DESIGN

The novated design contract structure is popular with international projects. In this structure, an owner engages a designer to design a facility. When it comes time to engage a construction contractor for the physical construction works, the owner novates (or transfers) the design contract in such a way that the designer is now engaged by the construction contractor instead of the owner. Thus the design contract evolves into a D&B contract structure, making the designer a nominated subcontractor of the main contractor. Sometimes the designer, instead of becoming a subcontractor of the construction contractor, becomes a consortium member of the design-and-build contractor.

The novated design contract structure retains the advantage of a D&B contract structure while giving the owner tremendous

control over the design, similar to a traditional contracting structure.

Although the novated design contract structure has been used in China, certain aspects of the contract structure are prohibited by Chinese law.

WORKS PACKAGES

In the work packages structure, an owner has separate contracts with various contractors for different aspects of the work. For example, an owner may have one contract with a designer and separate contracts with other contractors doing major portions of the works. The advantage lies in the owner having a greater control over critical packages of works and multi-point accountability with different contractors. For instance, an owner may want to engage one contractor to construct the building and another contractor to supply and construct the production line.

The downside to this contract structure, however, is the owner assuming the interface risks with difficulty passing on liabilities to the defaulting contractors (since a delay by one contractor may be attributable to another contractor).

Like the novated design contract structure, certain aspects of the work packages structure are prohibited by Chinese law.

MANAGEMENT CONTRACTING

To minimize the inherent risk exposure in the work packages structure, an owner may structure the contract in such a way that the project manager is effectively a “management contractor” who takes responsibility for the contractors and ensures that the contractors complete the project on time and within budget. This is known as “management contracting” structure and a common international practice among large projects.

If adequately structured, the management contracting structure retains the advantages of a D&B structure (single-point accountability) and a work packages structure (expert contractors for different work packages). However, the use of the management contracting structure is somewhat restricted under Chinese law.

BUILD-FOR-LEASE

To avoid the hassle of developing projects themselves, owners sometimes enter into contracts with developers, making the developers assume the responsibility of engaging and coordinating a designer and a contractor, and, after the facility has been built, leasing out the facility. The obvious advantages of this structure are the developer administering the construction and bearing the construction risks. Although the owner may finance the design and construction of the facility, it has limited control over these processes since the developer owns the facility.

SUMMARY

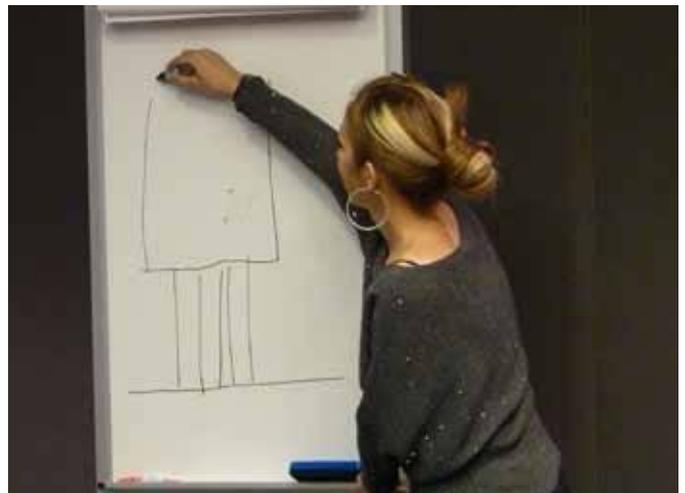
Even though in theory the concepts of structuring construction contracts in China do not differ much from international practice, in reality they are often frustrated by restrictive Chinese laws and regulations, particularly those dealing with the licensing of consultants and contractors. Plus the fact that some contract structures are more tax efficient than others. Despite practical challenges facing foreign investors and consultants operating in China, there are clever ways yet to jump through the legal hoops and still achieve the desired outcome. This may require modifying the structures and adopting onshore/offshore contract structures.

Engineering 101 for Non-Engineers (2nd run) - 9th,11th,16th & 18th March, 2010



Over four evenings in March, we held the second run of the very successful “Engineering 101 for non-engineers” course. 12 delegates were taken through a study of topics including the basic principles of engineering, types of construction projects and associated techniques as well as the related challenges.

Once again the speaker, Audrey Perez, held the attention of all with her enthusiasm and in-depth knowledge of the subject. Audrey surprised us with even more impressive animated graphics along with an enhanced, comprehensive set of accompanying handouts. The feedback from all was that this was excellent value for money and a thoroughly enjoyable and enlightening experience.



About Construction and Construction Law

This is part of a series of articles written by engineer, Audrey Perez, the author and presenter of SCL's Engineering 101 series of seminars.



“LET’S GET STONED!”

In the last edition of this newsletter, I covered an overview of the subject of Defects, and provided a brief summary of the subject of Waterproofing materials, which is often a source of construction disputes.

In this article, we will look at Stone, as a construction finishing material and as another major source of construction disputes.

In substance, stone is a natural product that inevitably varies infinitely. Therefore, lack of knowledge about its ephemeral qualities often leads to subjective perceptions and expectations. Controversies and disputes in relation to stone are likely to appear anytime in the process of dealing with it, and may last for a long period in a building lifecycle, stemming from its initial specification and stretching to the building maintenance stage. Major issues include: the dichotomy between a layman’s perception and expectations vis-à-vis the technical knowledge and experience required for dealing with the subject of natural products; and the availability of the resources at the source, provision of suitable stone (including providing the correct information) with integrity so as to achieve the expected result (or to adjust expectations accordingly!).

The following factors should be considered when dealing with Stone, as you would with any natural product: appearance, performance and ageing. Both the layman and the stone expert understand instinctively the limitations of natural products, yet disputes often arise when any party loses his good faith, raises its expectations to unreasonable levels or ignores the reality of natural products and impose conditions, whether they are agreed under a contract or not.

The wealthy construction sector in Singapore still allows for the use of huge quantities of stone finishes in residential and commercial buildings. However, apart from BCA’s CONQUAS that sets quality standards and benchmarks for the final installed product quality, there are no standards available internationally when it comes to dealing comprehensively and accurately with stone! It is only when it is used for structural applications that statutory requirements apply. Stone selection fabrication, procurement, installation and acceptance by the owner and/ or the end user is indeed a long adventure for each

project and depending on the common sense of each party involved, it could be even an enjoyable, highly educational and rewarding experience!

A BIT OF HISTORY



From top left, clockwise: Megaliths stones, Kefren Pyramid, Vatican stone clad interior

Stone is a general designation given usually in the construction sector to natural rock materials. Stone finishes are often applied to walls, floors, external areas and facades. Stone may be marble, granite, limestone, sandstone, travertine, quartz stone, alabaster or even semi-precious or precious stone. It is probably the oldest material used in construction. From the earliest days of mankind, stone constructions exist and megaliths are, to historians and archeologists the first construction projects erected by men in a quest of spirituality and attempts to understanding, accepting or adoring the after-life. In the old days, stone works were often and rightly associated to the arts and artistic skills to be transmitted by companionship. For instance, the word Marble itself is from Latin origin (Ancient Rome 509BC to 476AD), *marmor*, derived from Ancient Greek (Cyclades and Ancient Greece 3200BC-700BC) *marmaros* (= white), applied in particular, in ancient times to designate the marble used for the making of statues. The first and most famous marble used in Ancient times was quarried from Paros Island in Aegean Sea (Medicis Venus sculpture kept today at the Louvre Museum – Paris) and dates from Neolithic times (the age of polished stone). Marble and other stones started to be abundantly used in Antiquity in Egypt under the various Pharaohs dynasties some 8000 years ago and during the Cyclades Civilization – Aegean Sea Islands.

Since then, breathtaking constructions started to be erected by using stone. Pyramids for instance were made mainly of limestone blocks, quarried along the Nile, shipped to given Pharaoh’s Tomb construction site and erected to vertiginous dimensions and heights! While it is only visible today on the tip of some pyramids, it is acknowledged by archeologists that pyramids were fully covered with flat marble slabs that eroded and fell over time or were stolen for using in later constructions!! Romans used heavily stone in their constructions and decorative marbles appeared more often in Roman buildings. After the fall of the Roman Empire, it is only towards the XV century and the start of the re-development of the Arts in Renaissance period that Stone products were beautifully used again, and the Vatican interior and exterior are the peak of what beautiful arts men could have achieved with stone.

Following the industrial revolution in the XVIII century and the heavy industrialization that followed up in the world and related globalization, the stone industry was industrialized as much and stone productions today are standardized, from extraction to production and its use is mostly for stone tiles of regular sizes, for floors and walls covering.

TECHNICAL ISSUES



Stone quarries and stone extraction from a mountain

Stone is a rock material formed from millions of years of sedimentations forming mountains and extracted from the latter. Depending on which mountain and from which part of a given mountain stones are extracted, they do inevitably and infinitely vary in any aspect including but not limited to their color, tonality, shades, patterns, veins, grains, shine, composition and related hardness, sizes, and other factors. They are graded and priced accordingly. For instance, there are infinite variations to the Italian famous white base and black veined stone called Carrara, as the mountain near Carrara town from where the stone is extracted spreads on few hundreds of kilometers. Therefore, Carrara marble appearance will depend on which exact location in the mountain the stone is extracted from and it is probably impossible to find the same material appearance at different locations and/or different times in the same area. Its prices vary accordingly!

The appearance of stone, its colors and shades may vary as well according to finish brought to its exposed finished surface (polished, honed, egg-shell, bush hammered, saw cut, chiseled, etc) and the treatment applied on its surface (impregnators, waterproofing sealers or epoxy coating to achieve a mirror effect, etc) It is therefore not untrue to say that the most subjective trade is stone. Veins, patterns, crystal formations, surface cracks and color variations between two stone panels from the same stone type are NOT defects! Yet to the layman, it is defective unless he is well informed/educated when it comes to natural stone. In CONQUAS construction quality assessment scheme set up some 10 years ago in Singapore to help the construction sector raise the construction quality and raise the end users' awareness on construction quality standards achievable, BCA recommends consistency in stone appearance, tonality, color and patterns, not the complete absence or variations of the same! Should a developer or any end user still require finished stone to look "pure" or "clean" without any patterns or variations in a given layout and should it be achievable, this will be probably very costly as a selection and waste process will have to be engaged from the quarry itself to collate "plain stone". For instance, "pure" white stone is sourced from a particular location in Greece at a rate very similar to semi-precious stones yet the quantity found in one tonality variation is very small.

Apart from issues in relation to its aspect, stone slabs and tiles used in construction should have a sufficient mechanical strength to and durability so that its integrity is not compromised after its installation. Stone prices vary depending on the quarry extraction costs, the material transportation costs (raw product and finished product), the fabrication costs (for instance, the transformation from blocks, to slabs, to tiles) and the costs of surface finishing and stone treatment. Its availability at a given time and a given place affects the price tremendously.

CONCLUSION: IT'S ALL ABOUT EXPECTATIONS, INTEGRITY, NATURE AND QUALITY



From left: Stone installation in a typical living room in a Singapore Condominium; Historical building stone floor finish, heavily black veined marble, Pantheon, Rome; Volacca stone, one of its veining patterns, some of its parts are even fully white or fully grey.

In the past decade or so, construction execution quality standards in Singapore - particularly in the residential sector - became very high and this is directly linked to the rise in expectations of the end users, the buyers and occupiers. Residential developments' standards here are highest worldwide according to an international survey performed recently. The accuracy in execution of each finish and its strict control for each wall, floor and ceiling has set a benchmark internationally. Some residential developments in Singapore are classified "limited edition", similarly to Haute Couture or sports cars tailor made high end branding.

However, there is still a tremendous misconception regarding natural products such as stone and a belief that anything could be achieved with stone, as far as is well looked at, something that is unfortunately not possible due to its natural origin and therefore uncontrollable substance. As such, while BCA is wisely guiding the construction sector to deliver stone finishes with reasonable appearance, other determining factors such as the stone type selection, specifications and procurement - including costing - processes are still difficult to control. Sometimes the country of origin of stone is remote and the quarry hard to reach (save to say some are unreachable safely!) so as to be able to proceed with physical selection of stone blocks at the source. On the other hand, decision makers are usually not technicians when it comes to stone nor are they interested to listen to details of stone should they want to select one.

Therefore, stone agents and consultants have their share of integrity to demonstrate when presenting stone samples to a developer, an architect, a contractor or any buyer so that they are made fully aware of its variations and thereafter not be misled, frustrated and even chocked by the simple truth when it's too late as the bulk of the stone is delivered. Project team members should work hand in hand restlessly to deal with

known stone issues for a given development and quantity and strive to find solutions to each “surprise” met while dealing with stone.

I have visited a quarry in Thessaloniki for the stone supply for a luxury project in Singapore, and while I commented on the inconsistency of the veins in the trendy Volacca stone and how to avoid having this issue on my project, the Greek tall and strong quarry owner answered in a very disappointed and grave tone: “God created the mountain so, God created the stone, I can’t change God’s will for you“!! With his own words, he rightly meant that stone is a natural product and indeed

should be respected for all its variations and specified and used in a reasonable manner accordingly.

Audrey Perez

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QSE and Maintenance Head of Department
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LIST OF NEW MEMBERS WHO HAVE JOINED SCL (SINGAPORE) IN 2010

1. Anthony Raditya Lee
2. Ben Giaretta
3. David Liu
4. Gordon Smith
5. Hwai Bin Lee
6. James Dawson
7. Kelvin, Ken Jin Goh
8. Khon Ling Sim
9. Linda Low
10. Phuong Quynh Tran
11. Raja Bose
12. Richard LB Lau
13. Robert Palmer
14. Timothy, Wai Keong Ng
15. Venarico Lalican Cruz
16. William Khater Georges Abi-Habib
17. Yasmeen Jamil Marican
18. Daniel Tay Yi Ming
19. Ian Robert Lander
20. Jasmine Kok Pinn Xin
21. Joanne Wong Pui Fan
22. Kelvin Teo Wei Xian
23. Kishan Pillay
24. Kris Chew Yee Fong
25. Tan Geok Eng
26. Steven Cannon
27. Irfon Dawkes
28. Adriano Giacchi
29. Tan Hee Chai
30. Ho Yu Chong
31. Dhirendra Negi
32. Chee Ken Fong
33. Lim Ee Ping

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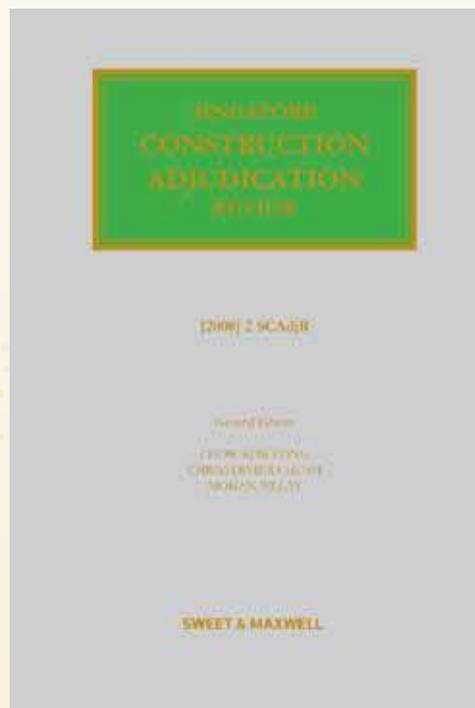
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