



Published by
The Clay Brick Association
of South Africa

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The CBA expands knowledge and support for clay brick masonry and maintains building standards in the use of clay bricks and pavers in construction. We educate the clay brick industry about energy efficient, environmentally-sustainable, inclusive manufacturing technologies.



THE VOICE

OF THE CLAY BRICK INDUSTRY



today's
footprint...
tomorrow's
legacy

56th AGM & Conference at Kruger Gate

Thank you to all our sponsors, speakers & delegates!

That was our best AGM & Conference ever! We were supported by 67 conference delegates, and a total of 112 people.

On behalf of the CBA Board of Directors, thank you to all our organisers, sponsors, speakers and delegates who made this an unforgettable and fun event. Thank you to our host Hendrik and the regional Mpumalanga team and especially to organisers Mariana and Marnie.

The 2019 AGM was all about the impact our businesses have on the environment. Throughout the 3 days we identified animals that used to be prolific across Africa. These iconic species - the evolutionary winners for tens of thousands of years - have dwindled to small populations and are now close to extinction due to habitat loss

TODAY'S FOOTPRINT

We are talking about more than just your carbon footprint, but the ENTIRE footprint you leave behind on the earth.

Are you making the best possible use of water, clay and other natural resources? Have you planted trees to hold the soil or restore the bushveld? Have you left open areas of sand that wash topsoil into the rivers? Are your roads damped down to stop dust? Do you reuse your waste?

The footprint you leave on the earth today, is the legacy you leave for the future.

With the harsh reality of so many local animals facing extinction, we hope to see all CBA members make a renewed commitment to our objective of reducing our industry's carbon footprint.

The AGM would not be affordable without our generous sponsors, who helped to offset the cost of providing exceptional evening events, superb speakers and all the goodies and giveaways. Please support them wherever you can!





The relaxed Mardi Gras Masquerade gave sponsors an opportunity to chat one-on-one to delegates about Members' needs and problems.

MARDI GRAS!



Financial Report

REVENUE	2019	2018
Membership Fees	2 598 538	2 748 687
Associates	173 330	114 718
Rental	832 342	321 605
EU switch project	85 993	31 896
AGM	865 426	478 657

EXPENDITURE	2019	2018
Marketing & Projects	1 476 091	959 933
Administration	421 350	595 403
Employment	1 392 654	1 071 456
Municipal	200 284	309 045
Maintenance	122 684	352 105
AGM	704 982	605 766
Other	281 779	227 433

Presented by CBA Treasurer Christopher Du Trevou

Technical Report

Please review the Technical Report on the CBA website for feedback on the activities and achievements of 2018/2019.

Technical Projects for the year ahead include:

- Educational information for both builders and property owners on SANS 10400-XA, rules for cavity walling.
- Greenhouse gas emissions reporting
- Carbon Tax
- Implementation of EU Switch Africa funded projects
- Review of the Thermal Performance study
- Edge Tool: The Technical Team is working to incorporate more accurate figures for clay brick.
- Representation on Minerals Council and new Mining Charter
- Upgrading various construction, sales training, technical notes and reference manuals to include the latest legislation.
- Education events for counter staff sales training, as well as presentations to architects.

Presented by CBA Technical Director Nico Mienie



FULL REPORTS: www.claybrick.org/2019agm

CBA President, Colin Meyer

During my tenure as CBA President, we have been faced with tremendous challenges:

- political instability and corruption
- a declining economy and a reluctance to invest
- land expropriation without compensation and
- a challenging regulatory environment.



Despite this, billions of rands are being invested in the clay brick industry. We're seeing brand new factories, new technology, new energy efficient kilns and new ways of thinking. We are achieving real progress in terms of technology and productivity improvements. Even under conditions of weak growth and low infrastructure investment, we are upgrading factories, creating jobs, selling our products and surviving.

Congratulations to those companies who are making big investments to improve quality and sustainability while developing new and exciting products.

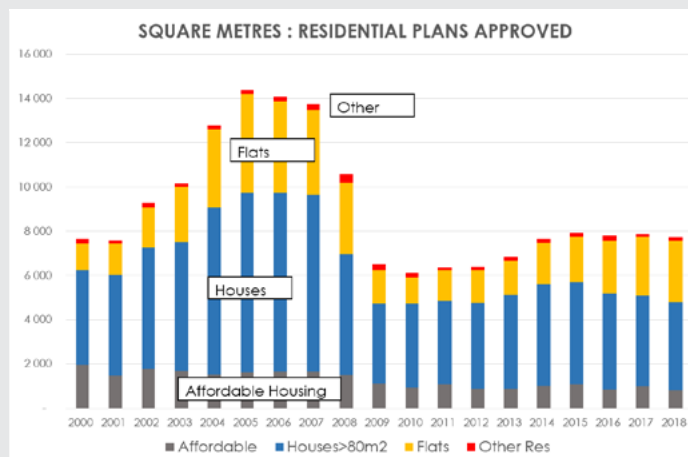
MEMBERSHIP

In 2018 we took the decision to terminate membership of manufacturers who had defaulted or who were in arrears with subscriptions. This had the short-term, undesirable effect of losing several members. However it is our view that membership of the Association should be sought after, long term and prestigious and not freely available to those companies and individuals who seek to benefit, without meeting their financial obligations.

THANK YOU

As President I want to thank the Board and Executive for their commitment as well as their time and financial support. I'd like to make special mention of our Technical Director Nico Mienie, Marketing Director Johan Humphries, and Treasurer Chris du Trevou. Their dedication to the betterment of the industry for all of us, comes at a cost to their companies.

I wish to thank all members for their respective contributions to the Association. There is absolutely no doubt that the old adage applies: "The more you put in, the more you get out."



Although building plans passed decreased by 1,6% in 2018 compared with 2017, increases were recorded for residential buildings (3,1%) and additions (1,2%).



Honorary Member 2019

Nico Mienie

Nico Mienie has served as the Technical Director of the Clay Brick Association of South Africa for many years, and we have been fortunate to have him as a committed and capable CBA Board member for over two decades.

Nico has more than 30 years' experience in the clay brick industry and is currently Managing Director of Algoa Brick - one of the biggest brick factories in the Eastern Cape. The company is known for its innovations in reducing the use of fossil fuels during production through energy-efficient technology.

Nico represents the CBA at national and international conferences, speaking on all aspects of the South African brick-making industry and especially sustainability and energy efficiency. He regularly visits both local and overseas factories to stay informed about best practice and is always willing to share his knowledge of the latest industry trends.

Nico led the technical team that produced South Africa's first industry-wide Life Cycle Assessment (LCA) and Sustainability Report.



Nico loves to be outdoors. He is an avid fly fisherman, regularly hikes the trails around the beautiful Eastern Cape province, and cycles on roads and mountain bike trails to stay fit.



Carbon Emissions: the carrot and the stick!

Submitted by: Lisa Reynolds

Carbon Tax is being implemented in South Africa from 1 June 2019. At the CBA's annual conference, Lisa Reynolds of Green Building Design Group (GreenBDG) updated CBA members on this legislation.

Carbon Tax is for Scope 1 emissions – "polluter pays principle". It calls for R120/tonne of CO₂ equivalents, but with the allowances, the actual liability is between R6 to R48 per tonne of CO₂e. A fuel levy of 9/10 cents will be imposed on petrol/diesel due to the Carbon Tax. Payment of the Tax will be done via the Customs and Excise Act. Inaccurate submissions will result in substantial fines.

The Switch Africa Green portal funded by the European Union will benchmark the industry and assist Members to calculate some Carbon Tax allowances. The consolidated, anonymous reporting identifies where real savings are being achieved by members, and provides accurate, local research for potential future mitigation projects.

The sunset clause has been extended to 2022 for the tax incentives Tax 12i and Tax 12L, to align with Carbon Tax.

SANS 10400-XA (Version 2) on energy-efficiency in buildings is on track for publication this year. The new standard is more user-friendly and there is no reference to SANS 204. The reference building route to compliance will be scrapped from the standard, leaving only two routes to comply: The tables and the "recipe" route.

An important change is the new CSIR map that reflects energy zones (rather than climatic zones). It considers both energy and humidity needed to achieve thermal comfort inside a building.

While the regulations for non-masonry walling remain unchanged, there will be a higher thermal performance requirement for masonry walling. The performance requirement for walling will depend on the type of building and the hours of day the building is used.

In order to comply, both concrete and clay brick walling will require thermal intervention – such as a cavity wall and insulation. In poor communities, owner builders will find cavity walls a challenge. The CBA is therefore preparing educational material to advise SME builders on cavity wall construction.



The Switch Africa Green Project is co-funded by the European Union



Lisa Reynolds from GreenBDG and the SA Energy Efficiency Confederation won a R10 000 weekend for attending all presentations at the Mardi Gras evening

80:20 rule of brickmaking

Garth Tayler

Dr Garth Tayler, a consultant in Ceramic Science and heavy clay production spoke on the 80:20 Rule as applied to sustainable brick manufacture.

Back in 1906 the Italian engineer, philosopher, economist and visionary Vilfredo Pareto developed the Pareto Principle, later known as the 80:20 Rule. Pareto found that 80% of the land in Italy at the time was owned by 20% of the population. He developed the now well known 80:20 Rule which has evolved into a valuable QA/QC tool.

- 20% of your customers represent 80% of your sales.
- 20% of your time produces 80% of your results.

This truth is worth applying in our day to day business practice. It is all about working smarter not harder!

Sustainable brick-making

In my years of experience, I have seen how the 80:20 rule applies to sustainable brick-making. A vital truth is that 80% of our success comes from our management of our raw materials. Yet we often focus so much of our efforts in other areas!

Raw Material optimisation

To be sustainable, we need to focus on our raw materials in order to get the best out of the clays we use. This is often one of the last places that is assessed.

Do we really know if we are using the optimum combination of clays and other components in our works-mix?

An organised programme of analysis and evaluation of our clays is the best thing we can do to get the best out of our materials.

As an industry, we cannot afford to accept high waste levels. Excessive waste of our precious, carefully blended materials is not a sustainable practice.

Furthermore, next to achieving the optimum blend of our clays, the selection of the best and most appropriate technology is vital to our long term success as an industry. The 80:20 Rule can also be applied to our production processing practices.

Raw material optimisation

Apply a proven 3-point procedure for a successful, sustainable outcome:

1. Use Mineralogical Analyses (XRD), Chemical Analyses (XRF) and Physical Property testing to pin-point the "Bad Actors" and the "Good Actors" in our mix. Then minimise the bad actors - eliminating them when feasible - and working with the good actors to optimise the mix.
2. Use a Test Matrix in the Lab, followed by selected production test runs to find optimum drying and firing properties. Use lab procedures **first**, rather than using your production plant to do tests. A production environment does not always give answers and is disruptive and costly.
3. Combine the best findings from this organised, systematic approach to achieve the best product result.

Long term sustainability

It is often thought that going to the detailed efforts I have outlined above is too expensive and not worth the effort. I would suggest the opposite. For our survival it is worth executing a phased action plan.

To summarise, I recommend the following phases of improvement:

1. Raw Material/Body mix optimisation
2. Install technology to increase productivity
3. Install appropriate dryer technology
4. Install appropriate kiln technology
5. Review of sustainability annually



SEEN AT THE AGM



Fundiswa Ndaba, Senior Policy Analyst for Public Affairs and Transformation at Minerals Council South Africa spoke on The Mining Charter and how it affects Micro & Junior miners.



Charity Donation



The CBA presented a donation of R25 000 to Paul Oxtan and CJ Carrington from the Wild Heart Wildlife Foundation.



Thank you to all the delegates, speakers and sponsors of the 2019 AGM and conference! See you next year in the Eastern Cape!

What we do today, matters!

Our 2019 CBA AGM & Conference was all about the impact our businesses have on the environment.

Thirty years ago, we all thought that governments and those people in at Greenpeace would protect the animals - the whales, the rhinos, the pandas. We assumed municipalities had set aside land for parks and gardens. We assumed someone, somewhere, was busy protecting our legacy. But our assumptions were wrong!

HABITAT DESTRUCTION

We humans like to believe we're not subject the same risks as animals, because we're smart. We can create habitats! We can grow more food. We can move out the cities to housing estates far from the garbage dump and polluted air. We can always drive our big SUVs to a cleaner river or beach to swim and fish.

Unfortunately there is a rapidly diminishing number of places where the air and water remain healthy for humans. Dust, polluted air and plastic waste crosses oceans. Poisons and pesticides thrive in our food chain, and are already in the meals you eat with your family.

The decisions that businesses like ours make NOW in 2019, will affect our families and communities and your grandkids in the years ahead.

TODAY'S FOOTPRINT

We each need to minimise not just our carbon footprint but the ENTIRE footprint we leave behind on the earth.

What we do TODAY, matters. We need to change our methods NOW. Rehabilitate your land THIS year. Rethink how you waste or pollute your water TODAY.

Specifically we all need to look at how we fire bricks, to bring that carbon footprint right down. It not only saves you fuel costs, it will save the planet and ensure that YOUR legacy is one you can be proud of.

BLACK RHINO

Status: critically endangered
Population in the wild: none
Population: < 5 000



Marketing Report 2018/19

Please review the Marketing Report on the CBA website for feedback on the activities and achievements of 2018/2019.

- 51 articles and projects published during the year
- 6 trade shows and events
- 22 advertisements in 11 trade publications
- 7 editorials in trade publications
- Architects newsletter sent to 1 300 local architects
- Social media presence expanded
- Website performance 2018-2019
 - 52 000 page views per month (22% increase)
 - 32% increase in visitors
 - 13 972 links from CBA to Members' websites
 - 9 432 emails sent via Members' profiles
 - 2 644 factsheet downloads

Presented by CBA Marketing Director Johan Humphries

NEW MEMBERS 2019!

Welcome to our new CBA Associate Members
Direxa Engineering, Officine SMAC and
Teide Refractory Consultants



Destroyed church to be rebuilt with brick donation



Pictured at East Coast Radio are from left, Christine van den Bergh and Christopher du Trevou of Corobrik, Pastor Ndabezinhle Sibiyi and Damon Beard of ECR.

In April, The Pentecostal Holiness Church in Empangeni was damaged by a severe thunderstorm. The collapse of a brick wall at the front of the building left 14 church members deceased, injured another 16 - and left the congregation without a place of worship.

The church's pastor, Ndabezinhle Sibiyi, wrote to East Coast Radio's (ECR) Big Favour asking if there was a way to source 15 000 bricks for the construction.

Corobrik Sales Director, Christopher du Trevou, was alerted to the need for a donation and immediately made contact with ECR, offering his condolences and pledging to sponsor, not only the 15 000 bricks needed for the wall, but a further 85 000 bricks for the reconstruction of the entire church. Corobrik's distributors Caminamix Services transported the bricks to the site at no cost.



Dr Andrew Smith flies our colours at the Masonry Congress at Salt Lake City, USA with his CBA shirt!

CBA MEETINGS

10 JULY: Gauteng, Limpopo, Mpumalanga and Free State

11 JULY: Exco & Switch Project

17 JULY: Eastern Cape

24 JULY: Western Cape

COMPANY PROFILE: **Direxa Engineering** Plant and application engineering for the construction material industry and technical ceramic firing solutions.

Direxa Engineering is an engineering, procurement and construction enterprise specializing in plant and application engineering for technical ceramic firing solutions and the construction material industry. The company is based in the United States and offers in-house design and on-site construction of its own range of dryers and kilns.

Direxa has extensive experience with designing and building grinding plants, forming and shaping rooms, dryers, kilns and curing chambers, and product handling equipment. In-house specialists provide electrical drawings, PLC programming and IT supervision.

The company's experience and resources make it an industry leader in the design and engineering of production lines for stiff-extruded clay products. The company also has extensive experience in plant and application engineering for non-clay lines, including concrete and beneficial use of fly ash to produce bricks, blocks and tiles.

A main focus at present is on the development of high-performance tunnel kilns and dryers that can be sourced locally in developing markets.

Direxa is particularly proud of its proprietary fuel-efficient tunnel kilns and solid-fuel firing systems (petroleum coke, coal, sawdust).



Direxa has the resources and flexibility to handle projects of any size — from small retrofits to complete turnkey plants. As a design and engineering firm, it places the application requirements of its customers above the sale or installation of any particular OEM technology. This allows engineers the freedom to source the best available equipment on a given project.

Direxa Engineering can undertake projects anywhere in the world. It is active on projects in Brazil and Australia, where it has set up subsidiaries to provide local support. Direxa is represented in the South African market by BMMS.

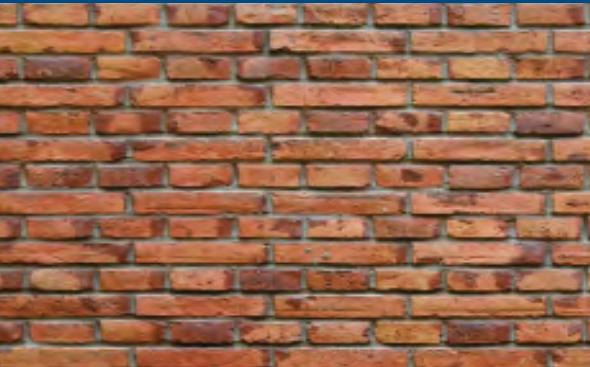
www.bmms.co.za or www.direxa.com

Tunnel kiln firing: 800MT per day of facing brick.



Tunnel kiln block firing: 100% sawdust firing.





Solution Provider

Direxa holds the view that the only way to a bright future for the Brick Industry in most countries, is through innovation. This means new appropriate innovative technology, tailored to the reality of each market.

With a dynamic team of engineers, we are well equipped and experienced to design, build, and retrofit plants for the Clay Product Industry and other Ceramic Industries.

We are able to customize and tackle any large or small project in the Clay Product Industry. Our job is to find the specific answer to the specific need of the customer. Contact us to discuss your next project today.

**Designer and builder of complete plants for the
Ceramic Industry**



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