

AVN - The Nubian Vault

Ganges, Frankreich

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Die **Nubian Vault Association** ist eine Organisation, die sich zum Ziel gesetzt hat, das Wissen über die Nubian Vault Bauweise wieder aufleben zu lassen und damit einen Kreislauf in Gang zu setzen, in welchem nicht nur Kultur, sondern vor allem leistbarer qualitativer Lebensraum geschaffen wird, sowie eine sozial ökonomische Marktwirtschaft, die den Menschen vor Ort zugutekommt. Der Baustoff Lehm ist hier ausschlaggebend, um von teuren Importprodukten wie Beton und Holz unabhängiger zu werden und ermöglicht damit der zunehmend wachsenden Gesellschaft im Sahel Gebiet eine kostengünstige sowie komfortable Wohnalternative. Die Organisation baute bisher in den Ländern Burkina Faso, Mali, Senegal, Benin und Ghana mittlerweile etwa 5000 solcher Häuser und bildete dabei über 1200 Handwerker für die Bautechnik der Nubian Vault Häuser aus.

Tony Kaye

im schriftlichen Interview mit Martin Stockreiter
 29 April 2022

What is your personal connection to earth buildings?

TK: The co-founder of AVN, Thomas Granier, is a friend of mine, and some 18 years ago, he asked me to translate material for AVN (website, funding bids, manuals etc.) from French into English. I have continued to do this over the years and was asked also to join the Board of Directors. I have no professional expertise in the area of earth construction (I am a psychologist by training).

How did it come that your organization is focusing on earth as a building material?

TK: AVN is a French-Burkinabe NGO responsible for probably the most important large-scale programme in earth eco-construction in the world. The reasons for the focus on earth as a building material are obvious:

- suitable earth is widely available and affordable (even free) in the Sahel region of Africa
- earth construction (of walls) is a well-established traditional building technique in the Sahel
- traditionally, roofs in the Sahel were made of timber and/or thatch: as a result of deforestation, such resources are no longer available, and the Nubian Vault mud brick technique provides an affordable and durable alternative, and also allows for traditional roof terraces and even a second storey.

What are the aims of your organization?

TK: To provide sustainable, affordable, decent, climate-adapted housing for as many people as possible in rural areas of the Sahel through kickstarting and supporting a market in the Nubian Vault earth construction technique. 60,000 direct beneficiaries are living in or using Nubian Vault (NV) buildings in 1,500 different localities in six countries (Burkina Faso, Mali, Senegal, Mauritania, Ghana, Benin). By the end of the 2020-21 season, 5,200 NV buildings have been completed since the year 2000, including 910 private and community buildings completed during the 2020-2021 season. 1,150 apprentices, masons, and entrepreneurs have been trained by AVN and are now active, including 360 new apprentices in 2021. We estimate that around 136,000 tonnes of CO2 eq have been economised as a result of AVN's programme, and around 4.9 million euros generated in local economic circuits.

What kind of people would you like to address with your organization?

TK: For the last 20 years, AVN has been addressing the needs of primarily rural families currently living in deplorable housing conditions in the Sahel.

Where do you see the biggest hurdles/challenges in building with earth?

TK: As far as AVN is concerned, the biggest initial hurdle is to convince potential rural village clients that the mud-brick vault - even though it is not 'modern' - is safe, affordable, and durable. Once they realise that it is, and that it provides the option of a traditional flat roof and even a second storey, and that the resulting building provides thermal comfort, any initial doubts quickly vanish. At an institutional level, one of the biggest hurdles has been to gain acceptance for official recognition of the NV technique as valid and appropriate, and to get it included in formal professional training programmes.

How does the cooperation with the professionals (structural engineers, building physicists, etc.) work when building with earth?

TK: AVN does not work with structural engineers or 'building physicists' (whoever they are), nor in general with architects, for that matter. 90% of NV constructions are simple village houses, and do not require any intervention from architects or structural engineers. Construction is carried out by skilled NV masons trained through our programme, who themselves recruit and train their own apprentices. For larger and more complex buildings, we work with our consultant architect, who is based in Mauritania.

To what extent does earth as a building material influence the construction costs?

TK: As compared to the current alternatives in rural areas of the Sahel (houses with mud brick or concrete block walls and corrugated iron roofs) NV buildings are far less costly, both in terms of construction and life-time maintenance and running costs.

What role do political decisions or financial subsidies/incentives play in moving earth building forward?

TK: Political decisions on aid and sponsorship at national and

international levels, together with financial incentives for NV construction, have been important drivers in development and growth of AVN's programme, from its start from zero in the year 2000, to its current level (around 6,000 completed NV buildings currently).

Are you also doing research on earth construction? If so, in which direction does the research go? Are there research grants?

TK: AVN's research is focussed on maintaining an accurate record of all NV buildings, the masons, the clients, and information on the structure and maintenance of each building. This information feeds back into the constant improvement and development of the NV technique and associated awareness-raising and training materials and programmes.

What in your opinion is the future potential of earth building?

TK: It all depends on the context. As far as AVN's programme in the Sahel is concerned, given the extraordinary success of the programme and its current growth rate, its future potential is enormous. We are aiming at moving from the current 1,000 NV eco-constructions per year to 10,000 per year by the year 2032, with a corresponding growth in the numbers of trained masons earning their living as NV builders and entrepreneurs.

Is there an experience related to earth construction that you particularly remember?

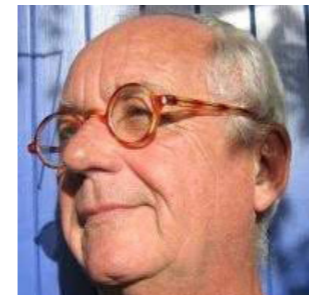
TK: So many, it is hard to choose. But I think the one that most moved me was seeing the drone footage of the first village built entirely by NV masons, for refugees in Mauritania. Since this film was made, several years ago, the village now has more trees and other vegetation...



Onion Storage Barn, Mali (Source: AVN)



Two storey village house with roof terraces, Burkina Faso (Source: AVN)



Tony Kaye, Vice-President of the Nubian Vault Association (AVN). Tony Kaye joined AVN's Board after retiring from the British Open University. He was Deputy Director of the University's Centre for International Cooperation, following a secondment to the Ministry of Education in Ivory Coast. He has acted as a consultant on distance education projects in many countries for Unesco, the World Bank and other international development agencies. He lives in the UK and France.