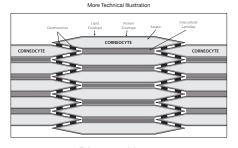
## SkinCareScience<sup>™</sup>

## Brick and Mortar - How is the mortar created?

Below are two diagrams of the skin and its basic makeup as it pertains to the 'Stratum Corneum'. Diagram No. 1 is the most basic and most cited within basic skin education classes. Diagram No. 2 is a more advanced illustration and shows more details but also brings about more questions. What is addressed in this paper is the 'Mortar' or 'Intercellular Space' and how it is created. Diagram No. 3 shows the process in an illustration.





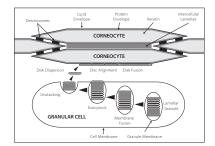


Diagram No. 1

Diagram No. 2

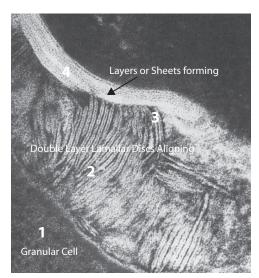
Diagram No. 3

The piocture to the right is what it looks like when the intercellular space or mortar is created. So here it goes...:)

When a cell migrates from the basement layer of the epidermas to the Stratum Corneum (SC) it goes through a change. Lets call it dying, but just know that that is not really factual. There is a specific process the cell must go through and more importantly over a sepcific time.

What the skin cell goes through as it moves up to the SC...

A skin cell within the basement layer of the epdiermis contians many things and the most important are what it releases at a specific time within the skin layer called the Stratum Granulosum. This is the third layer in the epidermis and is deeper within the skin and comes after the 'Stratum Disjunctum' and the 'Stratum Compactum' (These two make up the 'Stratum Corneum'). As the cell reaches this point it, to make this easier to understand, it cracks open like an egg and starts to release its contents. Below and to the right is what it looks like when this process takes place:



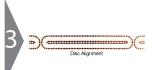
Actual picture of this process within the skin.



When the cell cracks open, the lipid is in a round shape just like the cell. But that shape will not work for the SC so it has to be more like a worm or line. So as it leaves the cell it will start to flatten out like this:



But this is still not good enough. What is more important is it must start to connect together to form one layer or sheet and to do this is must start to align with other discs.



This is what lipid discs look like when they start to flatten and align but the magic is the last step.



Starting from a circullar liposome, leaving the cell to flattening and aligning and then becoming one layer or sheet of lamallar proteins.