

"LE PAIN" *in words*



TEXTURE

Perceived initially by the sense of touch, then in the mouth, the texture of a bread is an essential factor.

The taster must take into account the crust's texture: is it resistant? Not forgetting the texture of the crumb: is the bread moist/fresh, melt-in-the-mouth or sticky?



Hubert CHIRON

From four generations of bakers, Hubert Chiron has a master's qualification in baking and a certificate from the American Institute of Baking. He is in charge of the experimental bakery at the French National Institute for Agronomic Research (INRA) in Nantes.



Shared experiences

« Of all the major bread categories in the world, crusty breads stand out for more than one reason. Their dual texture gives them unique crustiness combined with a specific chewing.

Bakers have great flexibility in modifying the characteristics of their bread by careful selection of ingredients and manufacturing process. In this way, they can respond to the needs and desires of their customers.

The crusty bread family is fascinating since it offers the widest choice of sizes, shapes, colours of crust and densities. I am also convinced that it is this bread category, regardless of its country of origin, that has the largest sensory spectrum in terms of both texture and flavour.

At the shop, the external appearance can be both remarkable and reassuring, but sometimes also, disappointing for the consumer. Once the product is in the consumer's hand, the judgment becomes critical: weight, freshness, degree of crustiness and, of course, smell!

The degree of satisfaction experienced on the first bite is, in itself, the first appealing factor and the "attack" reveals the characteristics of the crust. Well-baked breads resonate in the mouth, while others make no noise when chewed. Each has his own preference!

When carefully sliced, the crumb surface reveals the cell structure. Once again, the overlapping of cells, whether regularly structured (foam-like) or irregular, determines the palatability of the bread. Similar in its behaviour and mechanical properties to solid foam, the crumb of a crusty loaf can be highly distinctive. The shape of the cells, the reflection of light on the cell walls and the touch of the bread are all indications of a good bread to a consumer.

The crumb is a key component that, impacts upon the way that the loaf is used. Loaves can vary enormously, for example, regarding their resistance to spreading. Bakers in the old days were highly imaginative and indulged in the liberal use of imaged attributes: "hare's ear" scoring, a "long and silky" crumb with "pearly" surfaces. This bread category generates a rich vocabulary, not purely confined to the hegemonic notion of softness!

The connection between a bread's texture and its taste is still the center of debate. No one knows exactly where the "true" aroma lies within the interconnected winding, labyrinthine passages of a bread's crumb. The cell walls that ensure a cohesive texture trap moisture and minimise crumbling, but still have many secrets to reveal...

It is commonly said, and rightly so, that bakers who score their loaves are affixing their signature. I think that crusty loaves are also very appealing for the huge diversity of their "alveolar" architecture, which is the true hallmark of the baker. »

Texture / Touching the crust



Expert vocabulary

• Fragmentation

Assess the number of fragments/cracks formed on the crust when the sides of the baguette are squeezed



 Many fragments formed



 No crust fragments formed



• Resistance to tearing

Assess the behaviour of the crust when you break the baguette in two (8 cm). How much effort is required to break the baguette in two?



 Difficult to break in two: the baguette does not break off, but is torn



 Clean, straight, neat break



Consumer vocabulary

• Integrity of crumb/crumblly, flaky, too many crumbs, stale, cracked, split, firmly attached to the crust

• Not hard, soft, supple, easy to tear in two, breaks easily
 • Hard, brittle, like cardboard, rigid, difficult to tear in two

Texture / Eating the crust

• Resistance to bite

Assess the effort required to bite into the bread and the resistance of the crust to this action



 Hard, very resistant. E.g. Home-made sourdough bread



 Supple, soft, requires little effort



• Supple, soft, elastic, firm, chewy, hard to chew, compact, rubbery, "painful on gums", rough, sharp

Texture / Touching the crumb

• Moistness of crumb

Gently press the surface of the crumb and assess persistent humidity



 Dry



 Moist



• Hard, crumbly, dry, brittle/soft, humid, fresh bread

• Elastic texture

Firmly press the centre of the slice firmly with one finger, then assess the crumb's ability to spring back to its original shape



 Very elastic: the crumb immediately springs back



 Gummy: the finger mark remains visible



• Firm/soft, supple, easily squashed, chewy, plastic, marshmallow, elastic, rubbery

Texture / Eating the crumb



Expert vocabulary

• Melt-in-the-mouth/absorption

Place a piece of crumb against the palate and let it dissolve whilst assessing the amount of saliva and time required for the crumb to decrease in volume



• Moistness of crumb

Place a piece of crumb in the mouth and assess the level of freshness/moisture



• Gummy texture

Assess the development in the structure of a piece of crumb placed in the mouth without chewing



• Sticky texture

Assess the stickiness of a piece of crumb between the teeth. Chew the piece of crumb 10 times, by gently biting up and down to assess the stickiness (whether or not a film is created between the jaws)



• Spontaneous comments by experts



Consumer vocabulary

• Melt-in-the-mouth, chewy, creamy, covering, soft, disintegrates quickly/rough

• Filling, dense, stuffing, heavy, dry, makes you thirsty/ easy to digest, fresh bread, cold, moist

• Floury, grainy, gritty, fibrous/spongy, gelatinous, viscous

• Compact, dense, heavy, gummy

• Rubbery, chewing gum

• Sticky, glue-like, tacky

• Good resistance/no resistance, porous

• Smooth, even

• Greasy/oily