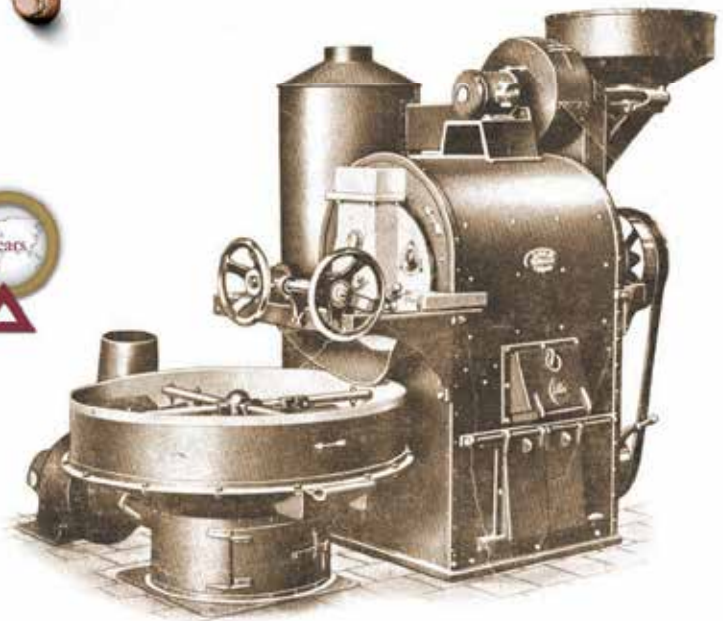




Roller Grinder

3G Roaster

LILLA GAZETTE



LILLA CELEBRATES 90 YEARS

PAGES 2, 3

INAM AND LILLA TOGETHER OVER THE YEARS
PAGE 3

TECHNICAL OUTLOOK: ROASTING FOR FLAVOR
PAGE 4



Opus Roaster



Orion Grinder



Profile Roasting 3rd. Generation

LILLA CELEBRATES 90 YEARS

Lilla, Brazil's largest coffee equipment manufacturer celebrates 90 years of innovative technology and worldwide distribution.



The Italian immigrant, Vito Lilla, founded Lilla in 1918. But manufacturing equipment was not what Vito originally had in mind when he first arrived in his new home country. His first effort was the creation of the coffee roasting company, Café Tesouro. Acquiring European built roasting and grinding equipment Vito set up his roasting operation in the downtown Se Square neighborhood of Sao Paulo. In fact the Lilla family might still be roasting coffee except for the fact

that world history intervened and with the advent of World War 1, Vito suddenly found it impossible to import the vital spare parts he needed for his roaster and grinders. They say necessity is the mother of invention and the crises of the war and the inaccessibility of the spare parts he needed, sparked the innovative mind of Vito Lilla. The capable and self-reliant Vito decided to manufacture for himself the parts he needed. It wasn't long before the news of Vito's inventiveness was out and other coffee roasting colleagues sought him out to manufacture the parts they needed as well. From such humble beginnings the Lilla manufacturing enterprise grew until not only was he making spare parts but actually building the first all Lilla product, a tabletop coffee grinder.

The demand for quality coffee equipment was strong and before long, seized with an entrepreneurial vision, Vito made the bold decision to close his roasting operation and to open a coffee equipment manufacturing facility in the nearby Sao Paulo neighborhood of Mooca. From that simple beginning in 1918

to today some 90 years later, Lilla the company and Lilla the family have continued to manufacture innovative durable coffee roasting, grinding, and processing equipment. What began as an enterprise to supply a few friends in Sao Paulo has now become a global enterprise with representation in 45 countries around the world.

Vito Lilla was not only a businessman but also a family man with seven children, five sons and two daughters. Ultimately all of the children joined the company, which was then named, Lilla & Sons, which in English is, Lilla & Kids. Unlike many family enterprises, which seem to disintegrate down the generations the Lilla family has managed to avoid the common conflicts of interest. "I have never seen an argument between my uncles, nor between them and my father" says Ciro Lilla, the current president of the company and the grandson of Vito Lilla.

Ciro was born in 1948, the same year the Vito Lilla passed away. That year also saw the factory move its operations from Mooca to Guarulhos in the city of Greater Sao Paulo. In 1968 Ciro was an engineering student at Sao Paulo University, when his uncle, Carlos Lilla, explained in great detail the functions and process of the then current Lilla coffee roasting equipment. The discussion fired the imagination of Ciro and delving into the design with the same innovative spirit of his grandfather Vito, Ciro began to sketch out design ideas for improving the roasting and cooling processes.



Customer Insight

INAM AND LILLA TOGETHER OVER THE YEARS

Inam Industria Alimenticia is a traditional company well known to the Brazilian food industry, but virtually unrecognized by the consuming public. The firm, owned and operated by the Michelone family - like the Lilla family of Italian origin - has produced derivatives of peanuts, hazelnuts, almonds and soybeans for over 50 years. However, the Michelone family began operations in 1915 with the founding of Cafe Tiradentes, one of the first coffee roasting plants in Brazil; Inam was a spinoff of the coffee company. Since 1995, The brand "Cafe Tiradentes" has been owned by Nha Benta, and Inam has become the main business of the family, and one of Lilla's most loyal customers.

Mr. Arnaldo Michelone, Inam's CEO, has thoroughly mastered the art of adapting our equipment to his roasting needs, as have others with products like chicory, cocoa, tea leaves etc.

Inam and Lilla are firms with much in common. They share an Italian origin, and are traditional family run businesses with roots early in the last century. Also, like Inam, Lilla's name is little known to the consuming public, even though Brazil is the world's second largest consumer of coffee.



Lilla roasters, model T, manufactured in the 50's presently working at Inam's plant in Sao Paulo



Super 10 Roaster



Automatic control panels

Ciro's concepts provided a unique use of changing from hot air flow to cool air flow within the roasting chamber combined with controlled quenching to precisely halt the roasting process and accelerate the cooling process. *Ciro* presented his ideas to his uncle Carlos who loved the idea and immediately set about starting production of a prototype to examine its efficacy. Indeed the innovations proved out and a new model Lilla roaster was launched in the market. The model proved a huge success and the concepts are still being used today in Lilla's current C series line of roasters. After he had finished his studies *Ciro* was invited to join the company as partner and as Director.

Engineering innovations have continued at Lilla creating advances in process automation and significantly in the development of smokeless roasting technology without the need for additional costly afterburners. Smokeless roasting is now incorporated into roasters ranging in sizes from 10 to 480 kilos per batch. Further innovations in the Opus 3rd generation roasters have allowed process control flexibility to enable a single roaster to produce the widest possible range of roasting profiles with roasting speeds from 3 to 20 minutes.

"Few companies in the world produce coffee roasting equipment with automation levels like ours," states *Ciro*. The emphasis on automation innovations has been applied not only to the roasting equipment but also for the complete plant from green to ground. The

automation of handling and blending systems for both green and roasted coffee has had special emphasis at Lilla. Lilla was chosen last year to provide Café Santa Clara with the largest green coffee system in Latin America, with a capacity of 1,500,000 kilos, 3.3 million pounds of coffee, in 22 cells, and with complete inventory management and reporting.

The product line of Lilla is impressive, but no less impressive to anyone who has been involved with managing and building a business, is the and dedication of its employees. "We have employees who have been working with us for 55 years." *Ciro* Lilla is proud to declare. "We have great respect towards our employees, many of whom have built their careers within the company and are now part of its history. I think the secret of this loyalty is we first evaluate the character of the human being and then the qualifications of the professional, after all professional competence can be developed."

Clearly Lilla has done a good job on both counts. The innovative touch in management and engineering has become part and parcel of the heritage and climate of the company. A corporate philosophy dedicated to listening to customers, and applying real innovation to meet real needs is readily apparent in discussions with company employees. This approach has served Lilla well for the past 90 years and it looks like the next 90 years will see Lilla and company continuing to build on what Vito began all those years ago.

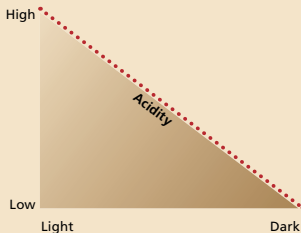
ROASTING FOR FLAVOR

By Robert Hensley February 2008

One of the wonderful things about coffee is how responsive it is to all the nuances and variations in growing, processing, roasting and brewing. In the roasting especially, these touches have a magic all their own. Enough to make us love the process, think big thoughts, and want to dive in again and again. Why is that? It's because, the more we look the more fascinating the whole process becomes, because in coffee roasting, as in all good magic, there is more going on than readily meets the eye.

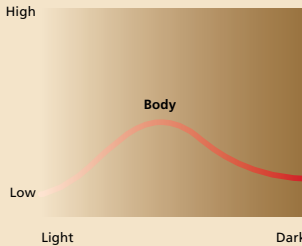
Investigations into the chemical content of coffee have revealed an astounding complexity. To date more than 1500 compounds have been identified in coffee and researchers continue to estimate at least 20% of coffees chemical make up remains unknown. With such complexity and the added complexities of selection, growing, processing, and regional differences, it's no surprise that coffees offer such a diverse array of character and potential for the roaster to work with. Understanding this array of gross and subtle aromatic and flavor variations of each specific coffee, and relating those to the selection of roaster controls in order to maximize virtues, minimize faults, and achieve repeatable desired results, is the essence of the art of roasting.

The first part of this process for the roaster is to discover the potential of each coffee. Each coffee offers a spectrum of possibilities, and although coffee is complex we can begin to uncover its potential by looking first at the two key elements of acidity and body. The chart below illustrates in a very basic way the relationships of these characteristics to the general level of roast degree.



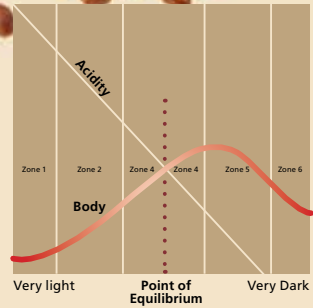
As can be seen clearly in this diagrammatic view, whatever acidity a coffee may have to offer will be maximally accented at lighter degrees of roast. This is not to suggest that acidity will decline in a purely linear fashion with all coffees, or that all light roasted coffees will have acidity. Nevertheless whatever acidity is present will be greater at lighter roasts than at darker roast levels.

Body is also a key component of the character of any coffee and likewise responds in its development to the roasting cycle as illustrated in the graph below.



Unlike acidity, the body of a given coffee is very low at lighter roast levels. In fact it might be fair to say, that until a coffee is roasted into mid range roast levels of at least the beginning phase of the second crack, we may remain quite unaware of what potential body a coffee may possess. Additionally, though the body of the coffee will increase into the deeper roast levels there is a limit to this increase. As a coffee begins to approach the very darkest roast degrees its body as well as its acidity will decrease.

Clearly from one coffee to the next the potential degrees of body and acidity will vary considerably. Nevertheless we can say that for a given coffee there will be a point in roast degree where both body and acidity will be in relative balance. This can be thought of as the point of a given coffees equilibrium, and although useful in the analysis of a coffees potential it is not necessarily the point where the best flavor and aromatic potentials will be found.



In this particular illustration we can see that this coffee reached its balance point for equal acidity and body at a medium level of roast. In another sample we might well find that this balance point is significantly shifted to either a lighter or darker roast.

But of course acidity and body are not the only elements to consider in analyzing and appreciating a coffees character, aroma as well plays a major role in our enjoyment of coffee. In our next installment we will look at aromatics as keys to coffee quality and other aspects of roasting parameters that effect flavor.

Robert Hensley is the owner of Equip For Coffee representing Lilla Roasters for western North America and the founder and chief trainer of the Coffee Training Institute. Anyone interested in learning more may visit his website, www.specialtycoffee.com or contact Mr. Hensley through his office at 650 259-9308.

