Bread

SUMMER 2014

BREAD

Issue 12 (Summer 2014)
ISSN: 2341-7730

http://bread.insanelyinterested.com/
http://breadfeed.tumblr.com/
contact@insanelyinterested.com

WELCOME

It happens to me from time to time when things get really busy. I forget to refresh my sourdough starter. Then, as everything returns to normal, I scoop out the dried surface and go digging for the starter, just barely alive, below it. And sometimes, at times like this, I ask myself if I should let the starter go and buy my bread from the supermarket—just for now.

During a break, when bread making becomes theory rather than practice, the joy that comes from pulling a steaming and crackling bread out of the oven, cutting through its crust, and spreading a generous layer of butter on top fades to the background. Bread making starts to feel like a chore rather than something you look forward to.

Luckily, there is a simple solution: most of the time, all that is needed to bring the joy back is to start making bread again!

As I refresh the starter and make bread again, I remember why I started baking bread in the first place. I remember the curiosity and adventure that drove me to experiment and to do it myself.

Sure, my mind wanders and I need to gently bring it back to the present moment—to teach it to focus on the one thing at hand and not worry about all the other stimuli competing for its attention. But the fun is there once again!

If you have ever had these feelings, I suggest you mark some time in your calendar and allow yourself to immerse your mind in bread and let the craft revive you again.

Dream about bread. Read books about bread. Come up with new formulas and try them. Consider starting a bread subscription, or just play with the idea: What breads would you include in your selection? What kind of visual identity would you like your bakery to have? Who would you like to have as your customers?

And then, when you feel energized and excited, go ahead and bake, bake, bake! Feel proud of what you have achieved.

Then bake some more.

After finishing this year's first issue of BREAD at the end of March, I took a long walk and spent a few hours in the nature, thinking about the magazine and my business as a whole.

As I thought about the magazine, I noticed that while I really liked the Spring issue, there was something important missing

from it: things for you to try and make yourself. The issue was sharing interesting stories about people who do great things with bread, but it didn't give you all that many tools for actually making bread yourself! And because of this, the magazine was getting just a bit too serious and theoretical.

Once I realized this (and in the next few days, the thought was confirmed by feedback from you, the readers) I knew we needed more action.

More fun!

That's why, in this issue, we have placed a lot of our focus on the really fun part: covering your hands in dough and just making bread yourself.

To do this, in this issue we bring you articles about baking bread in nature (with recipes), the autolyse method, bread in Germany, how using different flours affects the outcome in bread making, and undestanding complex bread formulas.

On the fun side of things, we have a light hearted mini interview with three bakeries about what goes on behind the closed doors of a bakery. And while not strictly about baking bread at home, the remaining articles are also very much calls to action: we meet Phil Agnew again to hear about his journey from baking bread at home to becoming a professional and share tips for starting your own bread subscription.

I hope this summer, we can inspire you to bake more bread and get you excited to try something you've never done before.

Here's to the joy of baking!

Jarkko

GOING PRO WITH PHIL AGNEW

by JARKKO LAINE

After some time baking bread for yourself, as pieces of dried dough start to feel like a natural part of your skin and your breads begin to look somewhat like those on the Instagram feeds and Twitter streams filled with breathtaking bread master pieces, if you are like most amateur bakers, you can't help but ask "what's next?"

"Should I take the craft to the next level and find a larger audience for my bread?"

Many shove the idea to the backs of their heads, and carry on with their regular daily activities. But some move ahead full steam, just waiting for the right opportunity to pop up in front of them. And then, when it does, they jump without looking back.

When I started the magazine a bit over two years ago, one of the first people I interviewed was a home baker, who—it was clear already then—was destined to go places. He didn't say it, and of course he didn't yet know the journey waiting ahead of him at that time, but one thing was clear: Phil Agnew was in love with the craft of bread making.

Baking bread weekly, thinking about bread every day, and milling his own flour (he still uses his mill every day for milling whole wheat flour to use in levain feeding and as a proportion of flour in the sourdoughs—"usually 15%", Phil tells me) were all signs of a true passion. And so, soon after the interview Phil was already spending his vacations visiting bakers, helping a wood-fired oven builder, and simply learning more about bread every day.

I followed Phil's journey through his blog and when, after the graphic design firm Phil was working for closed its doors, it didn't surprise me to see Phil fully embrace the world of baking bread professionally.

Today, Phil works as the bread baker at a Brisbane bakery café, Jocelyn's Provisions.

As the only bread baker at the company, he has had a lot to say about the selection of products as well as the bread making process. After almost two years of getting paid to make bread, Phil still loves the work just as much as he did when just getting started:

"I would still consider myself an amateur in the truest sense—amateur as in the old french term for 'lover of.'" the man says.

This spring, I contacted Phil again for another small interview to hear how things are going and to learn about what it's like to make the journey from home baker to baking bread as a job.

Here's what he told me.

❊ ❊

***Jarkko**: Can you pinpoint the moment when you decided that baking bread is going to be more than something to do every Saturday?*

Phil: Two clear moments come to mind, though one was earlier than the other.

A few years ago I used to drive a couple hours west of Brisbane to bake with a friend at his small wood fired bakery in the country. One afternoon as the sun was setting, I was being watched by some kangaroos in a nearby field while scraping out dough buckets and had an emotion wash over me that this is what I need to be doing.

Later, a choice would be presented to me which at the time was stressful, scary and liberating. The design studio I worked in was closed and my graphic design position was made redundant. I clearly remember walking to the bus one afternoon during this time thinking that I was done with design. This was not a new feeling or thought for me as most of my thinking by this time was consumed with bread and bakeries and my heart had long since left the world of graphic design.

And even though I persisted as a freelance designer for a few months this made me increasingly restless...

I knew I had to make the change!

***Jarkko**: What intentional steps did you take since then to go after the dream? Or was is more random and less organized than that?*

Phil: I don't remember making intentional steps, but meeting people, making contacts and visiting bakeries were the most important decisions I made. I also put a lot of work into the blog which I saw as a visual resume of what I could do.

There wasn't a plan as such, but I do believe that I created my own "luck" and have worked hard to get where I am. There are a few key people who I have met that have changed my life and I can never thank them enough. They believed in me.

***Jarkko**: Is baking bread professionally all that you thought it would be? What has surprised you about the actual work?*

Phil: To be honest I am in a very unique situation where I have set up a bakery and products around the way I like to work and the breads I enjoy making. I love my job.

I didn't have any romantic notions about working in a bakery. I knew what I was in for. There can be a lot of repetition—I know exactly what I need to be doing at every time of the day—a lot of cleaning. Flour gets everywhere and I am on my feet, moving constantly all day. I love this. Sitting down is a such a luxury for me now-a-days.

Probably the biggest surprise has been the difference in the handling of large masses of dough and really encountering the meaning of dough strength for the first time.

Also, 20 to 30 kg of dough behaves very differently compared to 2 kg of dough at home. A large batch of dough creates favourable conditions for yeast and bacterial activity so fermentation has a tendency to happen quicker. In the industry this is known as the mass effect. Formulas for small batches or home baking will often need a longer fermentation than a large batch in production. This fermentation will affect the strength of the dough i.e. the balance between extensibility and elasticity.

***Jarkko**: What is the biggest difference compared to being a passionate home baker?*

Phil: Having a great oven! Seriously, nothing compares to baking in an oven designed to bake hearth breads with good steam injection. I am really attached to the oven I use and know its quirks and qualities intimately.

Apart from that, it's a very different mindset between focusing all your love and attention on two loaves of bread at home as opposed to a hundred or so. You learn to be efficient—firm but still with care and attention.

It's really interesting watching home bakers come to the bakery and handle the dough with such trepidation and gentleness.

I remember that feeling well!

"Sitting down is a such a luxury for me now-a-days."

***Jarkko**: Do you still bake bread at home at all?*

Phil: You won't believe this, but our oven at home is broken and is not working.

I haven't baked a loaf at home since I have started at Jocelyn's Provisions but I have made bread at family and friends' houses so that may count...

***Jarkko**: I was recently chatting with a baker who has been baking since his childhood and he pondered on the question "why do I want to be a baker" out loud… Do you have an answer his question? What is it about baking bread that still captures your imagination and attention?*

Phil: It's the act of creation that drives me. I come to work and I make "things". At the end of my day I have something tangible to show for it that nourishes and hopefully pleases people.

It's a process that captures the senses. Nothing beats that feeling of looking over at the oven 10 minutes into a bake to see the sourdough springing with grignes standing proud. It's addictive!

"Nothing beats that feeling of looking over at the oven 10 minutes into a bake to see the sourdough springing with grignes standing proud. It's addictive!"

***Jarkko**: Do you ever get bored at work?*

Phil: No. There is repetition and you are making essentially the same product day after day, but as many bakers will say, it is not the same every day.

It is not a desk job where you can procrastinate and put things off. The dough doesn't wait, so the work needs to be done or else you will be falling behind and chasing your tail. A sense of urgency in all that you do is required as well as restlessness: there is always room for improvement and tomorrow will give you that chance.

***Jarkko**: Can you tell me a bit about how you got there and in such an important position right away?*

Phil: Yes I am the only baker doing the bread for Jocelyn's Provisions. In a few weeks I hope to have another baker trained up doing a couple of days so I can start getting two days off a week. Around this time I may also have an apprentice working with me as well.

I had just finished at Chester St Kitchen and was in communication with Brisbane Baker, Brett Noy who was about to start training for the Coupe Louis Lesaffre. He called me to say that Jocelyn's Provisions were looking for a baker to start producing bread and that he had put my name forward.

I met with the owners and their head chef and things proceeded from there.

It was quite surreal to find myself in such a unique position with one of Brisbane's premier pastry shops.

***Jarkko**: I also suppose you have designed most of the bread selection yourself? What has that process been like? Or is it still evolving?*

Phil: It has been a collaboration with the selection of bread products. But the methods and formulas have been my own. These

have evolved and will continue to do so based on costings, schedules and customer feedback. I have always enjoyed working on formulas and try to keep processes and ingredients as simple as possible.

***Jarkko**: What's your typical day like at Jocelyn's Provisions?*

Phil: As I am baking off-site at present, my schedule is a bit different to most as the entire bake needs to be completed, delivered and displayed before the doors open at 8:00 A.M. There is little possibility of re-stocking or delivery of late products.

During the week, I start at 3:00 A.M. with the retarded sourdoughs going straight into the oven the moment I walk in the door. As they are baking, I mix starters and the sourdough autolyse before dividing and shaping the ciabatta. The baguettes are also divided and pre-shaped during this time.

After the sourdoughs are baked and baguettes shaped, the ciabatta are then loaded into the oven. While these bake, I mix doughs for the the following day's ciabatta and baguettes. Ciabattas are unloaded and baguettes loaded into the oven and I then begin the sourdough mixes.

The bake is completed and picked up for the shop while the sourdough is bulk fermenting and I start weigh-ups and milling for the next day's mix.

Following that is cleaning of mixers, preparing couches, baskets and tins. I then divide and shape the sourdough and finish the day with preferment and starter mixing.

Oh, then a bit more cleaning.

***Jarkko**: What one thing from your "amateur baker" days has proved the most useful for what you do now?*

Phil: Perhaps intuition? I feel like I have experimented so much with different meth-

ods and processes with my home baking that I have narrowed down my baking to the essentials that work best for me.

***Jarkko**: Where do you see yourself, let's say 5 to 10 years from now? Still baking bread, I suppose?*

Phil: Yes baking. There is no going back now. It has become a part of who I am.

***Jarkko**: For someone looking to follow in your footsteps, what recommendations would you have? (As in steps to take as well as maybe people to follow and learn from, online, offline, books?)*

Phil: Make contact with people. Bakers in general are very generous. You can read all the books and watch all the YouTube videos but I have found it's the contacts you make that will carry you forward and help you develop. Spending time in different kinds of bakeries will open up so many ideas and questions to the myriads of ways we all make the same kind of bread.

That is perhaps why I am enjoying Instagram so much. Even though I work alone, I can still make these contacts.

❊ ❊

For more information about Phil's bread, visit Jocelyn's Provisions—either in person if you are in Brisbane, or through their web site.

To follow Phil on his journey and to enjoy the beauty of hand crafted bread at its finest, check out his Instagram feed (the photos shown in this article are also from there...)

WHAT'S IN A TECHNIQUE: AUTOLYSE

by JARKKO LAINE

Our story starts in France, almost sixty years ago. It was the winter of 1956, and it was freezing. In the first three weeks of February, all of France was struck by a cold streak: temperatures, which normally remain at or a little above freezing point (0°C / 32°F) now dipped all the way down to -20°C (-4°F).

In the south of the country, big plantations of wine, olive, and almonds were struck with cold and destroyed. And—most importantly for our story—most of the winter wheat in the entire country was frozen and lost. With their winter wheat gone, farmers were forced to start big re-sowing efforts, collecting seeds from everywhere they could be found.

In addition to the seeds imported, a notable batch of wheat was brought in from the Manitoba province in Canada. This Canadian wheat was stronger, with a higher protein percentage compared to the typical French wheat and so bakers requested the government to lift the ban for high protein flour that had been put in place during the

"While the protein content was similar to the high-protein flours French bakers had used in the 1930s, the flour's baking properties were different. "

war. The ban was lifted quickly and bakers got to work trying to reproduce the baguettes and *petit pains* from the 1930s that they had been missing for so long.

But something wasn't quite right. While the protein content was similar to the high-protein flours French bakers had used in the 1930s, the flour's baking properties were different. The cuts in the buns and baguettes didn't open into the wide *grignes* the bakers and their customers were looking for and the oven spring was modest at best. Discouraged, bakers gave up and kept making simpler shapes instead.

When *Raymond Calvel*, a rigorous experimenter and professor at the *"l'Ecole Française de Meunerie"* (later ENSMIC), was faced with the question, he got thinking: Could there be a way to make this strong flour work in a way that would result in the beautiful breads everyone was trying to achieve?

Following his gut instinct, the man who was quickly becoming known as one of the most important names in French style bread making around the world, decided to try to neutralize the excess of strength that was inhibiting the oven spring. To do this, he took some flour, mixed it with water and salt and left the dough to rest in a cold place overnight. The next day, about 13 to 14 hours later, he mixed this piece of what he called autolysed dough with the final dough.

Surprisingly enough, the dough worked wonderfully, creating the oven spring and grigne from the 1930s that he was looking for. However, as the phenomenon was limited to high protein, *gruau*, flours and Calvel thought that adding this new step to the baking process wouldn't be well received among bakers, he didn't carry on with his results. Yet.

Time went by, other topics caught Calvel's attention, and as he wrote himself, "like the waves of the ocean « wash away the footprints of the belated fisherman », they pushed the problem of producing the *petit pains de gruau* and its solution in the shadow and forgetting."

But as often happens, things and experiments once started don't remain forgotten forever. Twenty years later, in January 1974, Calvel was preparing some dough for his students to practice shaping with. This "dead dough", as he called it, didn't contain any leavening and was never meant to be baked into breads. Now, looking at the dough, the thought struck Calvel and he remembered his earlier experiment. Inspired by the memory, he saved a part of the practice dough and resumed his experiments.

And so, Raymond Calvel set out to find if what he had noticed twenty years earlier could still be reproduced and what (if anything) would be the best ratio of autolysed pre-dough to final dough. Later that year, he published his findings in an article titled *"L'influence de l'autolyse naturelle des pâtes en panification"*[1]. The article, which

1 Bulletin des anciens élèves de l'École française de meunerie. Novembre-Décembre 1974. [Article as PDF]

Calvel finishes by saying that more research is needed, details the professor's experiments and then summarizes his final findings, which have later—most importantly after the publication of his well-known (and currently hard to find) book Le goût du pain (The Art of Bread)—become a key element in the world of artisan bread making, both at home and in artisan bakeries around the world.

You may have already heard about the concept of autolyse—it is mentioned in most of the popular bread making books as well as my writing, in the magazine and in my recent blog posts. But how does this technique actually work and how Calvel really explained it in his first article? It's time to dig deeper. To find answers to these questions, I started from Calvel's original article, then continuing to browse through every bread making book in my book shelf, not forgetting articles on the internet.

Here's what I found.

WHAT, HOW, WHEN?

The autolyse (bakers usually refer to it using its French name coined by professor Raymond Calvel[2]) is an optional step in the bread making process.

In the most popular variation, the autolyse step is done as follows: Combine the flour and water from your bread formula and mix them into a dough. When no dry lumps of flour remain, leave the dough to rest for 15 to 45 minutes before adding the yeast, salt and other ingredients. This short rest will give the

Raymond Calvel (1913 – 30 August 2005) was a bread expert and professor of baking at ENSMIC in Paris, France. Calvel has been credited with creating a revival of French-style breadmaking as well as developing an extensive body of research on improving breadmaking technique, including studies of the differences between European and American wheat flour and the development of the autolyse, a hydration rest early in the mixing and kneading process designed to relax gluten in the dough and simplify the kneading process, thereby rendering the dough more extensible and easier to shape.

Source: Wikipedia

2 Similar techniques may have been in use as early as in medieval France (1290) where, as Les Saidel writes, "bakers in the royal court of Louis I used a technique of separately mixing the flour and water portions of their bread dough and leaving the mixture to soak overnight". However, it was Calvel's work that brought the technique back to modern, French style bread making.

flour and the enzymes present in it time to hydrate. As the enzymes work on the flour's starches and gluten forming proteins, the dough develops without the baker's touch.

In addition of thoroughly hydrating the flour, the most important reaction present in the autolyse is that of the protease enzyme breaking and realigning the proteins in the dough, forming gluten strands. Protease breaks also the gluten (thus the name that refers to self destruction), making the dough more extensible and easier to handle.

The results are clearly visible when you return to your dough after the rest: the dough feels as if it has been kneaded for a while already. According to Calvel's experiments, the autolyse step can lead to a deduction of 15% in the kneading time required to reach a fully developed bread dough. This, in turns means that less oxygen is put into the dough, and therefore less oxidation takes place in the kneading, keeping the resulting bread more aromatic and less bleached.

While over-oxidation is mostly an issue that occurs when working the dough in mixers, a home baker kneading by hand also benefits from the fact that she will have to spend less time mixing the dough.

"The results are clearly visible when you return to your dough after the rest: the dough feels as if it has been kneaded for a while already."

So far so good. But now, we get to the variations. Not everyone does their autolyse in the same exact way, so what elements can be changed, and why would you want to do that?

If you have been reading my writing before, you will know that I have been advocating for the most basic form of autolyse with nothing but flour and water in it. When using this method (which also seems to be the most popular among bakers) there is nothing inhibiting the enzymes from doing their work, be it salt or acids coming from the fermentation. Also, the flour in the sourdough starter or other preferment has already gone through a similar self-destructing process and doesn't

benefit from more of it.

However, many bakers stray from this idea and include liquid pre-ferments in their autolyses. This makes sense when the dough would otherwise be too dry to mix. And, in the case of a short autolyse, not much fermentation takes place in those first twenty or so minutes.

But while there is variation in the inclusion of the preferment, my impression is that when it comes to salt, there is an almost unquestioned consensus among bakers: virtually no one includes salt. Some just sprinkle the salt on top of the dough, others leave a small portion of the water aside and use it to help them in mixing the salt in.

But, here's the interesting part!

When you read Calvel's original study, you will notice that he did almost all of his experiments with an autolysed predough consisting of flour, water, and… *salt*. In his conclusions he says that salt slows down the process: while 15 to 30 minutes is a good time for an autolyse without salt, with salt, the dough can safely sit overnight before the remaining ingredients are added.

That's already a lot of moving parts. But there is more. In the following list, I have collected the most important opportunities for experimentation when working with the autolyse:

1. How much of the dough to autolyse?

Even though normally we mix an autolyse with the entirety of the flour in a bread dough, in Calvel's original experiments, he did the autolyse just for a portion of the flour.

As the autolyse step breaks down the flour, adding some of the flour later might be a way to maintain some of the flour's strength if that is needed. Another idea is to only do the autolyse for the wholemeal flour portion of the dough. When working with a new flour, you will have to find out what works best for it.

"Calvel designed the autolyse to be done so that the dough was left in the mixer for its autolyse rest, and 45 minutes was the longest he could imagine a bakery would keep a mixer standing idle."

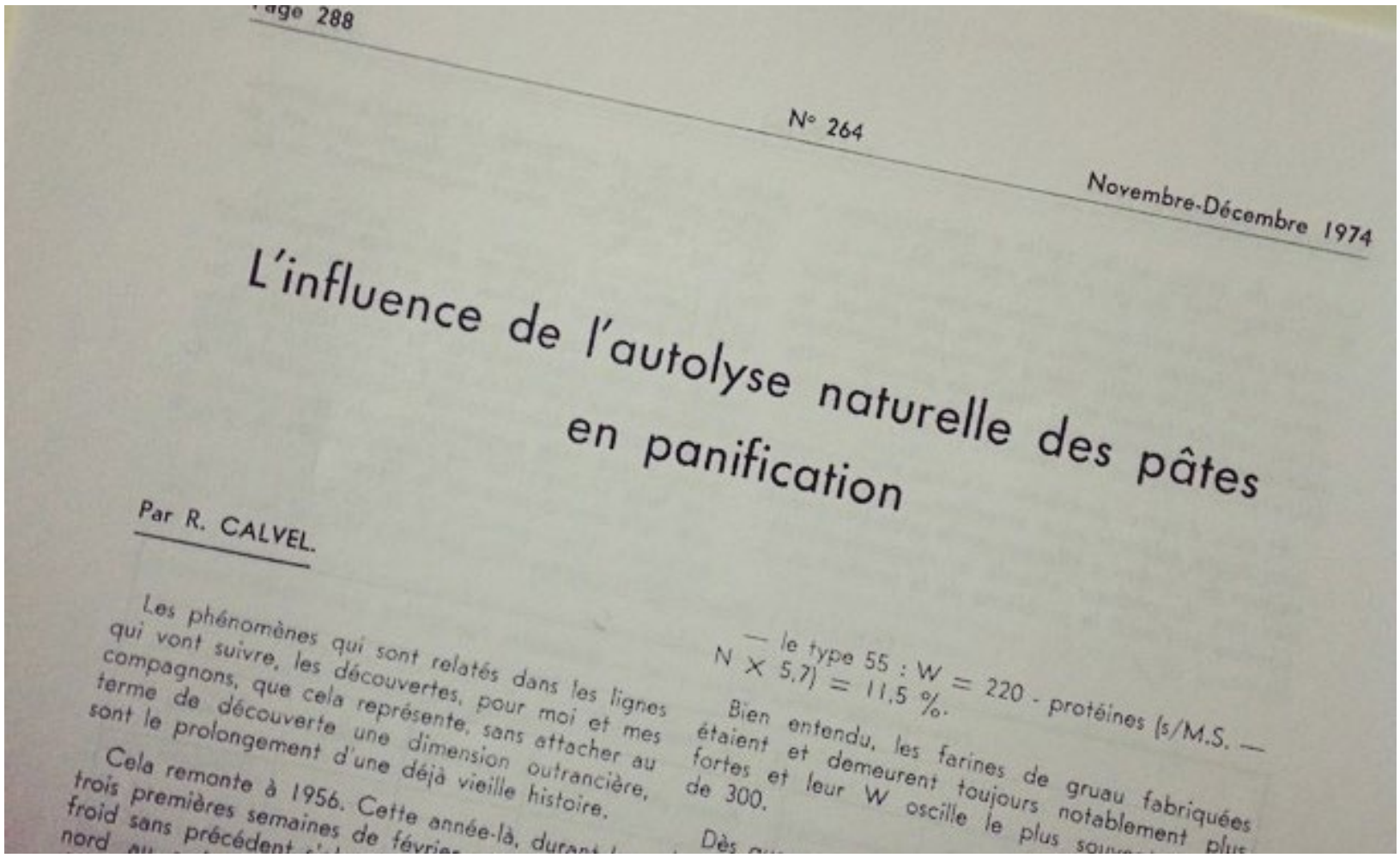
2. How long should the rest be?

In his original work, Raymond Calvel found that the effect of the autolyse steadily increases when going from 15 minutes all the way up to 45 minutes. Calvel designed the autolyse to be done so that the dough was left in the mixer for its autolyse rest, and 45 minutes was the longest he could imagine a bakery would keep a mixer standing idle.

Since then, a 20 to 45 minute autolyse has been the norm, suggested in most baking advice in books and online.

There are however some bakers who do longer autolyse steps than this. One of the best known is Chad Robertson, who, in his latest book, Tartine Book no. 3, presents the idea of doing an overnight autolyse when working with wholegrain flours. For white breads, he too goes with a shorter autolyse.

The best length for an autolyse step depends on the flour used, so when you start using a new flour, some experimentation is in place.



3. Should you include the leaven or not?

For the most effective autolyse, as the acidity in the leaven inhibits the enzyme activity, it's best to not include leaven in the mix. However, when a big proportion of the dough is already in the pre-ferment, the remaining flour and water mixed together might be too stiff to be properly autolysed on its own. In this case, you have the choice to either mix the pre-ferment in the autolyse or to skip the autolyse step completely. After all, with a majority of the flour in the pre-ferment, the dough is already sort of autolysed.

Another option worth considering (if changing the formula is an option) would be to use a stiffer pre-ferment so that you have more water at your disposal in making the autolyse mixture.

4. How about salt?

Most bakers don't include salt in the autolyse. But as we see from Calvel's research, even this isn't set to stone. Adding salt in the mixture will slow down the process that takes place in the autolyse but the results will still be very good.

The effect on the flavor of the final product might make this something worth experimenting with.

5. Shoud you do it at all?

When you get excited by the idea of autolyse, you will be inspired to use it everywhere. While there is nothing wrong with that, autolyse is an extra step in the process and at times, it can be unnecessary.

Remember that according to Calvel, the most important goal is to prevent too much air from oxidizing the dough and thus weakening the flavor and color of the final crumb. This means that enriched doughs that get their flavor and color mostly from ingredients other than the flour—butter, eggs, or sugar (think brioche or sandwich bread for example)—don't benefit

all that much from the autolyse step.

Also, if your dough has a big proportion of pre-fermented flour, the autolyse has mostly already occurred and you won't benefit from doing more of it.

Finally, if you are using weak flour, the autolyse step will make your flour even weaker, which will result to bad bread. So, again, in the end, the right way to go depends on the flour used.

YOUR TURN

We have now explored the concept of autolyse from its history to its application and even touched a little bit of the science behind it.

Next, what is left is trying it yourself. If you are already using the autolyse step in your bread making, give it a little spin and vary your work methods a little bit: change the duration of the autolyse step or try adding some salt in the mix. And if autolyse is all new to you, make it a part of your bread making process.

Here's how you can do it:

1. Using a basic bread recipe (ours for example), mix the flour and the water from the formula with each other.
2. Mix the dough until everything has dissolved and there are no dry lumps of flour left.
3. Cover the container and leave the dough aside for the next 20 minutes or so. Go grab a cup of coffee.
4. When you've had your cup of coffee, flip the dough over to the table and work it as you normally would: you will notice that it already feels quite smooth and ready. The dough wil still need manual kneading to become strong and elastic, but autolyse has given it a great kick start.

BAKERY LIFE

by JARKKO LAINE

What happens at the bakery when no one is looking? Quirky discussion, fights, old hits playing on the radio? And once the bread has been baked and the sun rises, what do bakers do to relax?

To find out, I picked a bunch of interesting bakeries and sent each of them the same set of five quick questions about the real life working at a bakery. Three of the bakers replied, and now, you'll get to hear what they said.

THE QUESTIONS

1. What kind of hours do you work at the bakery?
2. What do you listen to as you bake?
3. What do you talk about when you work?
4. How do you relax after all of the bread has been baked?
5. Can you share a fun memory or moment at the bakery?

HEWN BREAD

Hewn is a bakery located in Evanston, Illinois, focused on hand forged naturally fermented breads and pastries. Co-owner Ellen King answered my questions with some help from her bakers.

❊ ❊

1. When don't I work? My head baker comes in really early and I get in a bit later. I'm always here.

2. We don't have a radio. Crazy I know. But one of our bakers loves to sing—right now he is singing *Total Eclipse of the Heart*, but wants me to tell you he is singing Beyoncé.

3. Right now, we are talking about a vocal tick ("tsst") that our head baker does. So all day, every time someone says something they add a "tsst" at the end.

But as my other baker said, we talk about sex, politics and religion.

4. Well, after the bread is baked, we do all the pastries and mix more bread. But once we leave, I like to be outside, my other baker does karaoke (no joke) and the head baker said he goes home and drinks a beer.

5. We had just opened the bakery and we all were working 15+ hour days. I was walking really fast with a sheet pan and it hit the side of a rack and smacked my nose. I was so out of it already—but my nose hurt so bad I had to ice it. So I found a pound of butter and sat on a crate in the walk-in with a pound of butter on my nose. One of my bakers came in and found me and he started laughing so hard he almost tripped over a speed rack.

SEVEN STARS BAKERY

Seven Stars Bakery is a bakery in Providence, Rhode Island, run by Lynn and Jim Williams (and their 60 employees) with a mission to "Bake great stuff and treat our customers well."

My questions found Jim as he was riding his motorbike "in the wilds of New England."

❊ ❊

1. I do little production anymore, so it really varies depending on how the bakery is running and where I'm needed the most. Generally, normal daytime hours.

2. I love listening to classical while mixing for some reason. It's really the only time I listen to classical, but for some reason while focused on mixing it just fits. Shaping or baking, I like anything loud and rocking. I'm an aging punk rocker at heart. That or Tom Waits, Johnny Cash, New Model Army or Lyle Lovett (true!).

3. Bread of course! Or beer, food, motorcycles, fermentation...

4. I sit back with a couple beers and a hunk of bread. I don't need a knife, I just rip it off.

5. Oh man, most of the best are probably not repeatable here. Lets just say there can be a lot of banter and general good natured ribbing in a well run, efficient, busy bakery!

There was one time, and this was NOT at my place, when I was called in at around 2:00 A.M.to break up a fight between a couple of the bakers. Turns out one of the guys was sleeping with the other guys wife. Oh, and she was one of the shapers at the bakery!

A&J KING ARTISAN BAKERS

A&J King Artisan Bakers has been running in Salem, Massachusetts, since June 2006 with a focus on the tradition and technique of a fine hand crafted loaf of bread. The business is run by a husband and wife team of Andy and Jackie King who both sent in their answers.

❊ ❊

1. Andy: When we first opened, it was seven days a week, 2 A.M. to 5 P.M. (except Monday, which was my "day off": 7 A.M. to 5 P.M.).

I cut down to 6 days a week and did that for about 3 years. Now we have amazing bakers that work for us, and I'm pretty much at a Tuesday to Saturday, 40 hours per week schedule at the bakery.

However, getting called in at 3 A.M. or 11 P.M. to fix something or cover a shift is not unusual.

Jackie: These days I work 4-5 days a week, 7 A.M. to 3 P.M. or 9 to 5, but I do a lot of organizational, communication, and menu planning work from home in the evenings. And buying fruit at farms.

Having a 4-year-old and a 9-year-old make the long baker's hours impossible these days. But we have amazing bakers and managers that keep me in the loop even when I'm not around. I try not to count how many hours a day I'm texting and emailing. It would depress me.

2. Andy: It changes depending on who I'm obsessed with at the time, but traditionally it's been stuff like The Band, Dawes, Milk Carton Kids, Wilco, Pink Floyd, John Gorka, and podcasts: RadioLab, This American Life, On Point, Stuff You Should Know.

"The best times are when you're surrounded by people working extremely hard to achieve a common goal, and everyone has that crazy, hyped look while working at full speed. Adrenaline is a heck of a drug."

Jackie: Whatever everyone else is listening to? I actually prefer to work in silence. I'm in the minority, though.

3. Andy: Cinema, music, good local food, beer, local/national politics, or anything else that makes us laugh.

Jackie: Home and food projects, personal gossip and stories. We like to laugh while we work.

4. Andy: Just sitting down after a long bake is pretty relaxing. After that, a cold beer or four. Ok, five.

Jackie: Read a book, watch TV... I've recently gotten into dog sledding, so walking / running / sledding (depending on the season) with my four Siberian Huskies are my obsession right now. After that, tending the garden and landscaping in the sun.

5. Andy: The best times are when you're surrounded by people working extremely hard to achieve a common goal, and everyone has that crazy, hyped look while working at full speed. Adrenaline is a heck of a drug.

Then there are the times when we try to stick dough to the ceiling an have it fall on unsuspecting coworkers.

Jackie: The most fun days are thew busiest days, where we have the largest load and we have beautiful product; when we have "beasted through" a Saturday morning by sheer will alone.

Working in a bakery is taxing, but it is interspersed with silliness and fun. That's the joy of it.

GIRL MEETS FLOUR

by RALUCA MICU

I can remember, as if it was yesterday, something one of my teachers at University told us during a marketing course: "A time will come when we will have a multitude of flour types and brands on the market."

It sounded ridiculous at the time: Why would we need brands for flour? Flour is just flour, right? You buy it, use it and sometimes complain about its quality when your neighbour's brioche is lighter or tastier than yours. Oh yes! It was always the flour to blame, never the baker!

Some of you might find what I am about to say very difficult to believe, but until the mid-90s—or even later—the only flours one could easily find in Romania were white flour, polenta and semolina.

They were generic products with no branding, no history and of course no protein percentage or indications of where the grains might come from. You would buy them in bulk from the mill, if you lived close to one, or in a generic package from the shops. They used to have some information of what factory produced the flour, but that was about it. It worked at the time. Everyone would bake cakes and cookies, make pancakes or use the flour to thicken their sauces. Fewer people would actually use the flour for bread baking—and even the ones that did would just use their flair rather than having a good understanding of the baking process, hence why they blamed the flour for any unfortunate results.

It wasn't until I became interested in bread baking and moved to London that I realised that flour does matter. That an array of grains can be milled into flour and that each flour has its own characteristics and behaves completely different in the baking process.

I have baked bread avidly for around two years now and I like to think I've gotten better and better. On top of baking and baking and baking some more, I've started reading a lot about bread, the chemistry, the science—and some might say I've even started talking about it a bit too much. Luckily, I am sure you all understand what I am talking about.

But it wasn't until recently that I decided I really need to understand more about what the difference each flour brings to the end product: my bread.

Which brings us to the big experiment: I've decided to bake a series of breads using the same recipe and technique, but different flours. Will I be able to tell the difference? Will the flours behave differently in the bread making process? Will they all give me that oven spring we all long for? Will I get the same crust and crumb? Will the taste be the same?

You know all the things we obsess about while baking bread...

SETTING THE SCENE

Now let's set the scene of this experiment: all the activities that you are about to read about took place in my home kitchen. I am sorry if you imagined some sort of Nutty Professor type laboratory, it was just a domestic kitchen and admittedly a couple of specialised tools to help everything run as smoothly as possible. For a full list of utencils, check out the table on the next two pages.

Next, let's look at ingredients.

Water: I always use tap water for both my starter and all the stages of the bread making process. London's Mayor takes a lot of pride in the quality of London's tap water, so I couldn't find any reason not to use it.

One thing I should mention though: our tap water is probably on the hard side. The temperature of all the water used was 25.5°C (78F) (both for levain build and mixing stage).

Stage	Utensil	Usage	Comments
Weighing	Electronic scale	Weighing the ingredients	This is the one I use
	Small plastic bowl	Used as a container for ingredients in the weighing process	
Levain and mixing stages	Digital kitchen thermometer	Used to measure the water temperature	This is the one I use
	Ceramic bowl	Used to mix the levain and during the levain's fermentation process.	
	Rubber spatula	Used to mix the levain and then to dissolve initially the starter in water and then the levain as well.	
	Plastic bowl	Used to mix the dough for autolysis and in the stages of the bulk proof.	
	Shower cap	Used to cover the bowls above and the banneton during all the fermentation stages and the proofing stages.	Yes, that's right! A shower cap does the job brilliantly because it's stretchy and the elastic band keeps it tightly wrapped around the bowl and banneton.
	Mixer	No mixer was used, all dough was mixed by hand by yours truly.	
Pre-shaping and shaping stages	Small sieve	Used to dust the kitchen counter with flour. I find it does a better more even job that I can do by hand.	
	Plastic dough scraper/cutter:	Used to transfer the dough from bowl to the counter in this particular situation	This is the one I use
	Kitchen counter	This is where the pre-shaping and shaping takes place. It is a wooden counter.	I would kill for a stainless steel one – maybe in our next home...
	Tea towel	A clean tea towel used to cover the bread while resting after it has been pre-shaped.	

Proofing	Banneton	Used to proof the loaves and ensure they keep their shape. I used a banneton made out of wood pulp, with the following dimensions: 23x12x7cm.	
	Fridge	I have proofed the loaves overnight in my domestic fridge	The temperature is set to around 6°C
Scoring	Razor blade	For scoring I use a Shark Super Stainless razor blade.	Yes just the blade and no other gadget. I've tried a number of blades and gadgets, but I find this particular blade works better for me. (I still find it a bit scary, but I'll get over it soon hopefully).
Baking	Oven	For baking I always use my Miele domestic oven.	I can set the temperature to a maximum of 250°C (482°F) and can bake only one loaf at the time.
	Baking stone	Baking of the loaves is done straight on a 30cm x 30cm granite baking stone.	This is the one I use
	Baking tray	Used to create steam in the oven	Just the oven's baking tray, nothing special
	Glass / mug	Used to pour hot water on the heated baking tray at the beginning of the bake, to create steam.	
	Chopping board	To be used to transfer the loaf on the baking stone in the oven.	I don't yet own a peel, so I use my chopping board sprinkled with semolina flour to turn the loaf from the banneton and transfer it to the oven.
Cooling	Cooling rack	Used to let cool the hot loaf coming out of the oven.	
Storing		I always store the leftover bread in a paper bag, which I place in a plastic bag.	

Salt: For the entire experiment, I used coarse sea salt which I ground on the spot for each of the breads as the crystals were a bit too big and I was afraid they would not dissolve uniformly.

Starter: All of these breads are 100% sourdough breads, nothing else but flour, water, and salt. For all of them I used my trusted rye starter at 100% hydration and dark rye flour.

FLOUR

The whole point of this experiment was to document how the usage of different flours while baking the same bread affects the final product.

So let's talk flour!

As these flours are probably not easily available outside the UK, in the next section, I have tried to explain the characteristics of each of them as best I can.

Most of the flours used come from a traditional British mill, Shipton Mill (see our October 2013 issue for an article about them), while the other two are from a British commercial brand, Allinson, readily available in the UK stores.

Shipton Mill Organic Strong White Flour
This white flour is a blend of a rare single variety of English wheat called Maris Widgeon, combined with top quality organic wheat from the continent which has been prepared by the miller in stout elm wood bins.

Maris Widgeon wheat was traditionally grown because of the quality of its straw, which is much prized by thatchers. However, being a traditional variety it is well suited to the organic system of sustainable farming. For every acre, Maris Widgeon yields almost half the amount of wheat of the new modern varieties. However the guys at Shipton Mill say:

"its quality and flavour are so excellent we believe it is worth paying a premium to farmers to encourage them to continue to grow this ancient variety."

Protein content: 10.3%

Shipton Mill Canadian Strong White Bread Flour
Made from Canadian wheats and ideally suited for breads which have a long fermentation process. This flour is recommended by the miller as they say "the natural strength of the wheat protein helps the dough remain in prime condition and extensible, despite the rigours of the long fermentation."

Protein content: 12.6%

Shipton Mill Finest Baker's White Bread Flour
This flour is entirely made with grains grown in the UK and the miller says it has been milled to a lower than usual ash content it has a beautiful rich creamy colour.

Protein content: 12.4%

Shipton Mill French White Flour – type 45
Typically made only from the innermost parts of the wheat berry the flour produced is the finest and most suited for making a wonderful elastic dough. In French flours the smaller the number the whiter the flour, the number Type 45 being an indication of the amount of ash present.

This flour is particularly recommended for making light puff pastry. However I wanted to see how it would work when baking bread. Some interesting info is that this flour corresponds to what older French texts call "farine de gruau".

Protein content: 10.7%

As I mentioned above, I wanted to test these specialist flours, bought straight from the mill and compare them with shop bought flour that is readily available in the supermarket. Here are the latter ones:

Allinson Plain White Flour
Unfortunately the packet doesn't hold any information about the milling process or the provenance of grains.

Protein content (the lowest of all flours tested): 10%

Allinson White Very Strong Bread Flour
This packet does mention that Allinson flour "is made from British wheat whenever possible", however there is no way of telling if the one I've bought fits into that category.

Protein content (the highest of all flours tested): 13.9%

To not make the experiment more complicated than it already was, the dark rye flour was the same one for all the breads I baked:

Shipton Mill Organic Dark Rye Flour – Type 1350
This is a wholemeal rye flour. Unfortunately there are no other details available about this flour.

However here is a bit of insight into what "Type 1350" means when it comes to rye flours. The numbers next to a flour, in our case rye flour, usually relate to the ash content of that specific flour. The amount of ash in a flour correlates to the degree of extraction. The higher the ash percentage the more "whole" is the flour. The numerous gradations used will indicate the relative lightness or darkness of the flour.

For example Type 610 is about 60% extraction, with Type 1740 being around 95% extraction. In our spe-

cific case Type 1350 is considered a dark rye flour, a wholemeal flour.

Before we get going with the recipe, baking method and results, there are a couple more things I need to mention: As I live in London the temperature in my house and kitchen is pretty much constant between 21-23°C.

The second important point is that all measurements in my recipe are in the metric system. It is the preferred one for most bakers when it comes to weighing ingredients, so who am I to contradict?

Are you ready to start the experiment already? No? Oh, you tease! Let's do it!

THE RECIPE

All the breads in this experiment have as a starting point a slightly modified version of Hamelman's Pain au Levain (Sourdough Bread) that can be found in Jeffrey Hamelman's book, Bread: A Baker's Book of Techniques and Recipes.

Here is the method I used, that will result in one loaf:

Building the levain

Start by building a levain (or pre-ferment) using the following ingredients.

Bread Ingredients (Part 1)

Ingredients	Quantity	Baker's %
White flour	107g	93.04%
Dark rye flour	8g	6.96%
Water (25.5°C / 78°F)	70g	60.87%
Rye starter (100% hydration)	25g	21.74%

To create the levain, start by dissolving the starter in the water. Then add the flour and mix until all the flour is hydrated. Use the ingredients from the "Part 1" table above.

You will notice that this specific levain is

quite stiff as the water content is just above 60%. It works just fine, the only caveat is that when we move on to making the bread it will take a bit longer to dissolve it in water.

Leave the levain to mature or ferment at room temperature for 10 hours in a ceramic bowl covered with a shower cap.

Bread Ingredients (Part 2)

Ingredients	Quantity	Baker's %
White flour	323g	95%
Dark rye flour	17g	5%
Water (25.5°C / 78°F)	235g	69.12%
Levain	210g	61.76%
Salt	8g	2.35%

Overall bread formula[1]

Ingredients	Quantity	Baker's %
White flour	430g	94.51%
Dark rye flour	25g	5.49%
Water (25.5°C / 78°F)	305g	67.03%
Starter	25g	5.49%
Salt	8g	1.76%

The autolysis – 45 minutes

Once the 10 hours are up we are ready to start making our bread.

First dissolve the levain in the water. Add the flours (white and rye) and mix, by hand or with a rubber spatula/wooden spoon, until all the flour is hydrated. Use the ingredients from the Part 2 table above. The dough will be a lumpy mess, but that's ok.

This stage is known as the autolysis. Cover the bowl with the trusted shower cap and leave to rest for 45 minutes.

---

1 the flour and water in the starter are not accounted for the flour and water overall percentages.

The mixing stage – around 10 minutes

When the 45 minutes are up you are ready to add the salt. Sprinkle it on top of the dough and start pinching the dough with your fingers to make sure the salt is evenly distributed. You can, of course, reserve some of the water (from part 2) to dissolve the salt in prior to adding it to the dough in this mixing stage, but I find it is not necessary for the small quantity of salt/dough we are talking about here.

Work the dough with your hands for about two minutes, to make sure the salt is incorporated, then give it about 10-12 series of stretch and folds. If you are not familiar with the stretch and fold technique, I find this video very helpful. The entire mixing will take about 5 minutes.

Transfer the dough in a clean bowl, that you have previously lightly brushed with some vegetable oil.

The bulk fermentation stage – 150 minutes

Once the dough is sitting nice in your bowl covered with the shower cap (of course you can use some cling film for this as well) leave it to rest for 30 minutes.

When the first 30 minutes are up, perform the first stretch and fold—I usually do this in the bowl without transferring the dough and then leave to rest another 30 minutes.

Perform four stretch and fold series leaving the dough to rest 30 minutes between each stretch and fold.

The pre-shaping stage – 20 minutes

Now that the bulk stage is over we are ready to pre-shape our dough. I always pre-shape it in a round shape known as a boule, but not a very tight one. Rest the dough with the smooth side up.

Cover the loaf with a clean tea towel and leave to relax for 20 minutes.

The shaping stage

Flour your banneton. For all the breads in this experiment I have used white flour to prepare my banneton, but rice flour could be a good option as chances are lower for the loaf to stick to the banneton during the overnight proof.

Uncover your dough and shape it. I always shape this particular bread in an oblong shape known as a batard.

Place the loaf seam side up in the banneton and cover it with the shower cap. Alternatively you can slide the basket in a plastic bag and tie it up.

If you need some help with your pre-shaping and shaping stages, this video has helped me a lot in improving my shaping.

The overnight proof (retarding in the fridge) stage – 10 hours

Place the banneton in the fridge (on the middle rack) and leave to rest for the next 10 hours. I use my domestic fridge set to approximately 6°C.

The room temperature proof stage – 90 minutes

Remove the banneton from the fridge and leave at room temperature for a final proof of 90 minutes. You will of course need to watch the dough as in some environments 90 minutes might prove to be too long, or even not enough. The old finger test works well: poke the loaf with your finger and if it bounces back immediately it needs a bit more time. If the dent remains, you are ready to bake.

While the bread is undergoing the final proof start pre-heating your oven to 250°C. In my case I get the best results if

I pre-heat the oven, including the baking stone and baking tray around 90 minutes before I want to bake the bread. The baking stone I use needs the longer time to become really hot and give the best results.

The baking

When you are ready to bake, prepare your peel (chopping board) by sprinkling it with semolina flour and fill your glass or mug with very hot water. Prepare yourself to use the razor blade as well!

When transferring the loaf to the peel, I find that I sometimes need to sprinkle the seam side of the dough with a bit of semolina as well, because the long rest in the fridge makes it a bit sticky.

Once the loaf is on your peel you are ready to score. As you can see from the photographs, I always score this loaf with one long score. There are many videos around scoring and lots of tips, but ultimately good scoring comes with experience and practice. Here is one of my worst scoring jobs in history, luckily the bread turned up very nice (the bread in this video is the one baked using the Shipton Mill French White Flour – type 45).

Transfer the scored loaf quickly on the baking stone, pour the hot water in the baking tray and quickly close the oven door to ensure most of the steam that you have just created is trapped inside. At this stage, because my oven is very small I reduce the temperature to around 220°C, but for bigger ovens you can reduce it only to 230°C.

Bake with steam for the first 20 minutes, then open the oven door and remove the baking tray. Then bake for another 25 minutes, a total of 45 minutes.

When the 45 minutes are up, turn off your oven, leave the door slightly ajar and leave the bread inside for a further 5 minutes.

You have now baked a Pain au Levain!

To help you out, here are the timings for this method, in short. I have given you the time of day as well, but of course you can work out your own schedule. Because I have a two-year-old toddler, I tend to wake up very early, so fermenting the levain during the day when I am at work, proofing over night, and starting the bake very early in the morning works perfectly for me.

TIMINGS

Day 1

8 A.M.	Prepare the levain and let ferment at room temperature for 10 hours.
6 P.M.	Dissolve the levain in the water (part 2), add the flours (part 2) and mix to the lumpy stage. Leave for autolyse for 45 minutes.
6:45 P.M.	Add the salt and mix for about 5 minutes as directed above.
6:50 P.M.	Leave the dough to rest for 30 minutes.
7:20 P.M.	Perform one stretch and fold and leave to rest for 30 minutes.
7:50 P.M.	Perform a second stretch and fold and leave to rest for 30 minutes.
8:20 P.M.	Perform the third stretch and fold and leave to rest for 30 minutes.
8:50 P.M.	Perform the forth (last) stretch and fold and leave to rest for the last 30 minutes.
9:20 P.M.	Pre-shape the dough and leave to rest covered with the tea towel for 20 minutes.
9:40 P.M.	Shape the dough, cover the banneton and insert in the fridge to proof overnight for 10 hours.

Day 2

7:40 A.M.	Remove the loaf from the fridge and leave to proof for 90 minutes.
7:40 A.M.	Start heating up the oven (baking stone and baking tray in the oven) for 90 minutes at 250°C.
9:10 A.M.	Turn the bread on your peel/chopping board, score and transfer to the oven. Pour the hot water in the baking tray and quickly shut the oven door.
9:10 A.M.	Bake your bread for 45 minutes at 220-230°C.
9:30 A.M.	Open the oven to release some steam and remove the baking tray.
9:55 A.M.	Turn your oven off, crack open the door and leave the bread to rest in the oven for 5 more minutes.
10 A.M.	Your bread is ready!

Phew! Now that the bread is baked, let's talk results.

First of all, I have to mention that I didn't really notice any major differences between the flours at the levain build and fermentation stages. They all seemed to behave the same.

BREAD NO. 1

Baked using Shipton Mill Organic Strong White Flour (protein content 10.3%)

Dough behaviour during autolysis, mixing, and proofing stages: This flour has one of the lowest protein percentages in all the flours tested. It is for this reason that I think the dough started a bit wet during the autolysis and the first couple of folds, even though the hydration in this recipe is not that high.

However, after the first two folds, the dough was nice and smooth and gas bubbles had started to appear. The dough was easy to pre-shape and shape and did not stick to the banneton while proofing in the fridge.

When taken out of the fridge I couldn't notice a big increase in volume from the overnight proof, but it did plump up while proofing at room temperature.

Scoring and baking: The bread was easy to transfer to the peel and to score and it did hold its shape well whilst I was scoring it. Once in the oven, I was happy to notice a good oven spring.

Crust: The crust was a nice shade of brown, glossy, with a good crunch. However compared to the other breads, that were baked at the same temperature for the same period of time, this crust did not reach a bold dark brown colour.

Crumb: The crumb was a beautiful creamy white, open, with irregular shaped holes. A pretty good crumb, considering the relatively low hydration of the dough.

Taste: This bread's taste is quite delicate, with just a hint of sourness, despite the long overnight proof and nutty notes from the dash of rye flour used.

BREAD NO. 2

Baked using Shipton Mill Canadian Strong White Bread Flour (protein content 12.6%)

Dough behaviour during autolyse, mixing and proofing stages: This flour has one of the highest protein percentages in all the flours I tested (apart from the Allinson White Very Strong Bread Flour). I was expecting this dough to be a bit stiffer, and it did feel a bit dry to start with—but transformed into a lovely texture after the autolysis stage and the mixing.

The dough was easy to preshape and shape, and it behaved while proofing in the fridge—I mean it did not stick to the banneton.

When taken out of the fridge it looked like the volume of this bread had increased a bit compared to Bread no.1 and it did plump up more while proofing at room temperature.

Scoring and baking: This bread was easy to transfer to the peel and to score, and it did hold its shape well whilst I was scoring it.

Once in the oven, I was happy to notice a good oven spring.

Crust: The crust was a richer shade of brown compared to Bread no.1, with a glossier finish.

Crumb: The crumb was a beautiful creamy white, with what seemed to be a lot more holes compared to Bread no. 1, but quite similar in size.

I personally preferred Bread no.1's crumb.

Taste: there was no noticeable difference in taste compared to Bread no. 1.

BREAD NO. 3

Baked using Shipton Mill Finest Baker's White Bread Flour (protein content 12.4%)

Of the entire experiment this is, in my opinion, the winning bread!

Dough behaviour during autolyse, mixing and proofing stages: The dough behaved brilliantly, was smooth and pliable and I could see its clear development during the bulk fermentation stage.

This dough was easy to pre-shape and shape and it behaved while proofing in the fridge—I mean it did not stick to the banneton.

When taken out of the fridge, it looked like the volume had increased and the bread was nicely proofed after the 90 minutes at room temperature.

Scoring and baking: The bread was easy to transfer to the peel and to score, and it did hold its shape well whilst I was scoring it.

The bread had a great oven spring and I think its shape after baking was one of the nicest in the experiment.

Crust: The crust was nice and crackly, with a good hint of shiny brown and a crusty finish.

Crumb: I think this was, by far, the best crumb in the experiment. It was creamy, almost custardy, with a good looking network of different sized holes.

Taste: the taste was delicate and nutty, a step higher than the previous ones due to the custardy texture.

BREAD NO.4

Baked using Shipton Mill French White Flour – type 45 (protein content 10.70%)

I would rank this bread as No.2 in the top of the Big Experiment breads.

Dough behaviour during autolyse, mixing and proofing stages: As expected, this dough was wetter than the one for Bread no.3, considering its protein content is quite a bit lower. However, I was expecting it to remain wet through the entire process, but similarly to Bread no. 1, the dough texture improved after autolysis, mixing and the first two stretch and folds.

The dough was easy to pre-shape and shape and it behaved while proofing in the fridge—I mean it did not stick to the banneton. When taken out of the fridge it didn't look like the volume changed much, but the bread did plump after the 90 minutes at room temperature.

Scoring and baking: The bread was easy to transfer to the peel and to score, and it did hold its shape well whilst I was scoring it. Once in the oven, it resulted in a good oven spring, maybe slightly lower than the one seen in Bread no.3.

Crust: This time the crust was even darker, but it was very tasty and had a good crunch.

Crumb: The crumb was again a beautiful creamy white, with a very similar structure to the one seen in Bread no.3, maybe a hole or two could have been bigger to make it a tie between them for No. 1!

Taste: taste wise this bread was on par with Bread no.3: same nutty delicate flavour with a good custardy texture.

BREAD NO.5

Baked using Allinson Plain White Flour (protein content 10%)

This is the bread that lost the race!

Dough behaviour during autolyse, mixing and proofing stages: The dough was extremely wet from the beginning and compared to the first four had a greyish colour, not a really pleasant one.

The dough structure did not improve much during autolysis, mixing or stretch and folds. It remained very wet and weak. Because of this, it was very difficult to preshape and shape and did stick a bit to the banneton during the fridge proof.

On top of that, the dough did not rise much in the fridge or in the final proof stage at room temperature.

Scoring and baking: As you can imagine, I struggled a bit to transfer the bread to the peel and scoring was pretty much impossible, leading to the loaf losing even the little shape it had.

Needless to say (as you can see the images) that the oven spring was a disappointment.

Crust: The crust went dark brown very soon, even though the oven conditions were exactly the same as before.

Crumb: The crumb was very poor. It looked grey, no beautiful holey structure, just small holes, similar to something you might find in a whole wheat bread, rather than a white one.

Taste: this was the biggest disappointment. Somehow the bread tasted salty and quite sour, not really something one would enjoy.

BREAD NO.6

Baked using Allinson White Very Strong Bread Flour (protein content 13.90%)

I had big expectations for this flour, mainly fuelled by my opinion that high protein content is the thing I need to succeed.

Yes, you guessed right, I was in for a surprise!

Dough behaviour during autolyse, mixing and proofing stages: This dough was the driest one of the entire experiment and, similarly to the Plain flour used for Bread no.6, it turned into a greyish dough.

The dough did relax a bit during the stretch and folds, but it was still quite dry when I got to pre-shaping and shaping. It just felt like there was no elasticity or extensibility to the dough.

The dough behaved OK overnight, no sticking—and it did increase a bit in volume with the overnight proof and the room temperature one.

Scoring and baking: The bread was easy to transfer to the peel and to score, and it did hold its shape well whilst I was scoring it.

I did get to observe an oven spring, but not really the one I was expecting.

Crust: The crust did turn out good looking, nicely brown and shiny and with a good crunch to be fair.

Crumb: The crumb was just dull. No creamy colour, small holes structure, nothing impressive.

Taste: Similar to Bread no.5, the taste was the biggest let down. It matched the crumb: just dull, a bit too sour, completely unexciting.

WHAT DID I LEARN FROM THIS EXPERIMENT?

When I was getting started to work on this story, I had a very brief chat with John Lister, the owner of Shipton Mill, about different types of flour, their protein content, grain provenance and the rest.

He said something at the time that I took lightly, but I think after this experiment it really does hold true: "Protein quantity is not always the best indicator of how a flour will behave, 'tis more the quality and characteristics of the grain, the way the grains were milled that are most important ones".

Looking back at my bread baking experience, I've always thought that protein content is THE thing! That in order to get the best oven spring and the greatest holes, I needed a flour with a high protein content.

Well I did prove myself wrong, didn't I?

Yes, it was one of the flours with a relatively high protein percentage that has given me the loaf I was looking for (Bread no.3), but could I in any way disregard Bread no. 4, baked with a lower protein percentage flour? Would I be less happy if all my loaves would have that holey crumb, creamy texture and great crust as Bread no.4 does? No, I would be a very happy girl!

Similarly did the flour with the highest protein percentage give me the best spring or crumb? No, it didn't and I suspect that this is all to do with the quality of this flour, its long journey from field to my kitchen and potentially more aggressive milling practices that have influenced the flour's quality, colour and most importantly flavour.

Would I ever think of flour as "just flour" after this Big Experiment? No! I will keep testing and trying to find the best flour I can possibly find for each of the types of bread and pastry I want to bake.

But will I still use shop bought flour? I would be a hypocrite if I said no. I will probably still use it to some degree: for quick things like pancakes and sauces, or for those moments when getting my hands on freshly milled flour is difficult.

Finally, I must add: Experiment, people! Search, learn, practice and most of all, keep an open mind. There are always new things to learn and discover, even about something apparently simple as flour.

"Protein quantity is not always the best indicator of how a flour will behave, 'tis more the quality and characteristics of the grain, the way the grains were milled that are most important ones"

LUTZ GEIßLER AND BREAD IN GERMANY

by JARKKO LAINE

In the past two years on the pages of BREAD, we have presented a wide range of bakeries and bakers from the UK, the USA, Canada, the Nordic countries, Australia, and so on. That's a lot of different countries, but the world is big and so, many countries and cultures with great bread are still waiting to be discussed.

One of them is Germany, a country that boasts a diverse bread culture with a history as long as Germany itself (according to a travel advertisement web site, bread in Germany is "more than just food—it's a part of the culture" and German bakers are pushing for the inclusion of the country's bread culture as "intangible cultural heritage" recognized by UNESCO).

Clearly a country that bread lovers should be looking into for information and inspiration!

To embark on an exploration of bread in Germany, I decided to start with an interview and have someone deeply immersed in the culture share his thoughts.

Lutz Geißler is a 30-year-old geologist from Neudorf—"Saxony, Germany, Ore Mountains" as he adds as he describes his home town. He is also the founder of Plötzblog, probably the most popular bread making blog in Germany.

After testing the waters with a general blog on a number of varied topics, in 2011, Lutz decided to focus on bread. "Because it became the topic I was most interested in", he says.

"The blog covers all topics around bread and is focused on good bread. That means bread with less yeast, long fermentation time and without any food additives."

The blog quickly found a receptive audience—and through the work of this enthusiastic writer it has reached impressive figures: "Plötzblog has grown rapidly in the last years, recently with more than 600 bread recipes, more than 60,000 unique visitors and more than one million page impressions per month. This year, for the first time, I am self-employed, working with this blog." Lutz says.

The blog has lead the home baker to new opportunities, among them offering bread making courses (with participants from all over Europe and the world), consulting bakeries and creating recipes for them, and a book published last year.

What started few years ago from working too hard on a diploma thesis and needing something hands on and practical to use to maintain a balance has lead to a career on its own. But what was true for Lutz then, still remains so: "Making bread was the best I could find: at the end of the day you will see a result and the best of it? You can eat the result!"

Now, let's get started with the interview—and our exploration of bread in Germany.

❊ ❊

***Jarkko**: What is the state of home/ amateur baking in Germany?*

Lutz: I know that many people in Germany are baking their own bread, because more and more traditional bakeries are closing and more and more industrial bakeries are opening (with bread not worthy of the name).

I don't know how many people we are. We are still a minority, but a growing minority.

"Making bread was the best I could find: at the end of the day you will see a result and the best of it? You can eat the result!"

***Jarkko**: What about bread in general?*

Lutz: Germany is the country of *"Roggenmischbrot"*, a rye bread with some wheat in it. Depending on the region this bread has different names but it's still a "Roggenmischbrot".

German bread has been famous because there were so many local specialities baked out of so different grain types such as rye, wheat or spelt, einkorn or emmer.

Today, Germany is still proud of its bread culture, but most of it has already died or is dying these days. Today, bread is a product like a car or a mobile phone and not a bread with all of its history and importance for all of us.

In Germany bread is too cheap. And with the price the quality gets lower and lower.

Most of German bread today is industrial bread, baked with food additives. It smells

and tastes similiar in every part of Germany. It is extremely difficult to discover the last small hand crafting bakeries. Baking shops und supermarkets with baking stations on the other hand are shooting up like mushrooms.

***Jarkko**: To learn more about the German bread culture, where should one go looking?*

Lutz: There are some groups of bakers baking good bread, especially organic bakeries and some conventional bakeries. Some of them work together in the association called Die Bäcker (The Bakers).

The association's goal is to bake bread just out of flour, water and salt, without additives, using long fermentation processes and craftmanship. They are not only interested in bread but also in questions of cultivation of grains, agriculture and milling industry. They want to bake bread, not a "product".

For some impressions on the German bread culture, you may want to look at a web site called Brotkultur.

"Most of German bread today is industrial bread, baked with food additives. It smells and tastes similiar in every part of Germany. It is extremely difficult to discover the last small hand crafting bakeries."

***Jarkko**: Can you tell a bit about your book?*

Lutz: Yes, last year, my bread baking book was published by the Ulmer Verlag. Ulmer contacted me in 2011, asking if I would like to write a book. I had already had this idea and it was just a question of the right time to do it.

Now, after just 9 months, more than 20,000 books have been sold! The book opened some new doors for me. Even professional bakers buy the book and I know that my book is used to qualify new bakers. That is great!

Writing the book was hard because I had to create recipes within 6 months and had to blog simultaneously. Furthermore, my first child was born in this time...

***Jarkko**: How would you describe the book as a whole? What key ideas or goals did you have in mind when planning it?*

Lutz: The book is not only a book of recipes, but a book about the basics of bread baking. It covers all aspects of baking at home.

It was really important for me not only to describe how to bake, but also to explain why. I want that the reader understands the processes taking place during mixing, fermentation, shaping and baking. This is the only way to bake great bread.

I hope that my book will be published sometimes in English.

***Jarkko**: Finally, where do you see your blog and your journey with bread going in the next few years?*

Lutz: I hope that my decision to become self-employed was the right one. My blog will possibly change from a recipe-dominated blog to a blog about good bread in general, with reportages, recipes, discussions and more. My long-term goal is to open an own small bakery where I can show my understanding of good bread in practice.

100% RYE BREAD

by LUTZ GEIßLER

Rye Sourdough

Ingredients	Quantity	Baker's %
Rye flour 1150	830 g	100%
Water (ca 40°C / 104°F)	830 g	100%
Rye starter	160 g	19.28%
Salt	16 g	1.93%

Soaker

Ingredients	Quantity	Baker's %
Old bread (dried, milled)	130 g	100%
Water	260 g	200%
Salt	26 g	20%

Dough

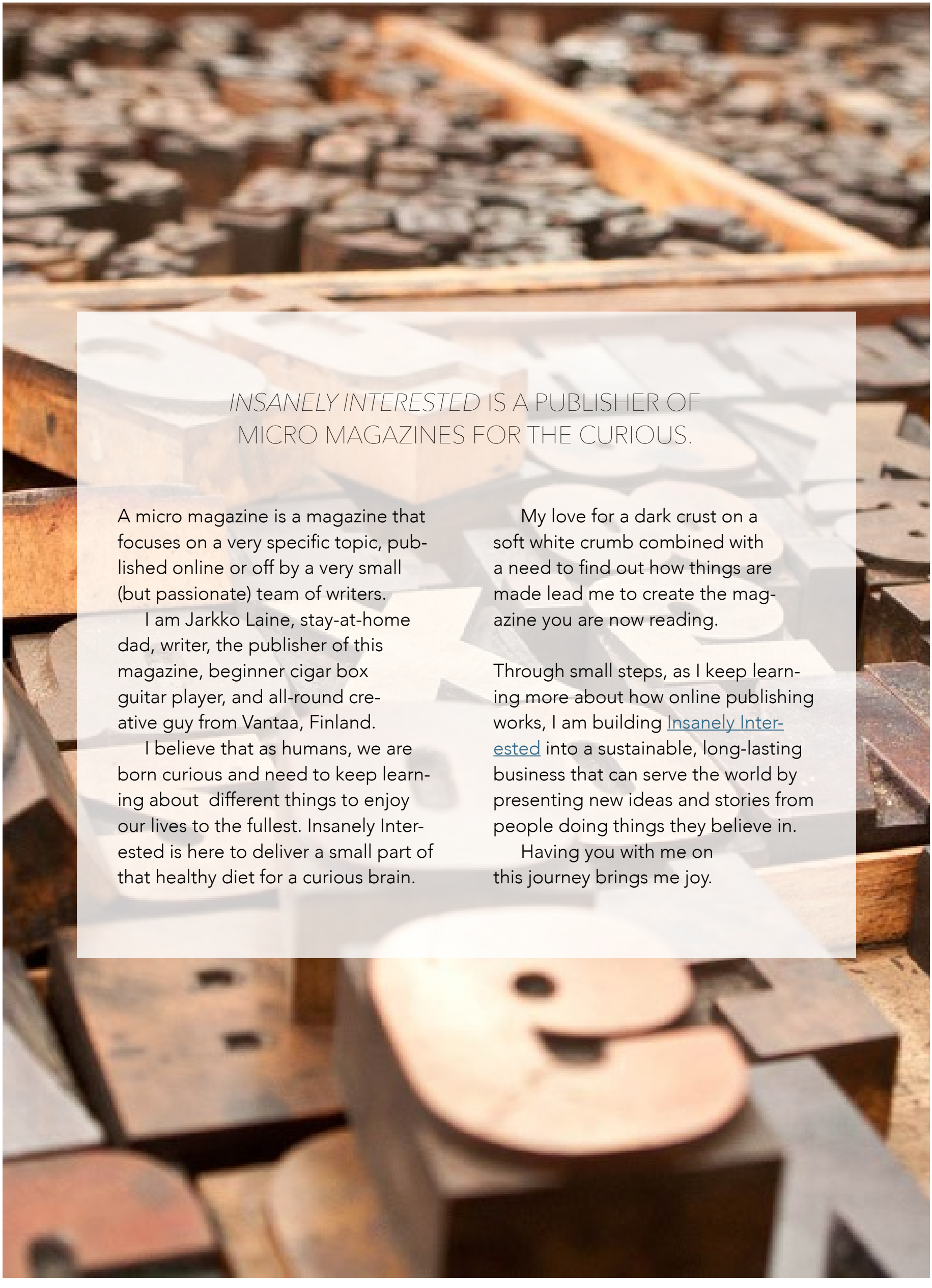
Ingredients	Quantity	Baker's %
Fresh sourdough	1836 g	146.88%
Soaker	416 g	33.28%
Rye flour 1370	1250 g	100%
Water (ca 40°C / 104°F)	550 g	44%

Instructions

1. Mix the ingredients for the sourdough. Ferment the sourdough for 22-24 hours at 20-22°C.
2. Mix old bread with water and salt. Keep it in the fridge for 8-12 hours.
3. Mix all ingredients 5 minutes at lowest speed and 2 minutes at second speed (or 8 minutes by hand). The dough should be wet and sticky (dough temperature ca. 27-28°C).
4. Ferment the dough 2 hours at 24°C.
5. Shape a round loaf.
6. Ferment the loaf with seam down in a floured banneton for 45-60 minutes at 24°C.
7. Bake the loaf with seam up at 280°C (or 250°C) falling to 200°C approx. 90 minutes. Steam after 2 minutes. Open the oven door after 2-3 minutes for some seconds to let the steam out. Wait at least 12 hours before cutting the bread.

❊ ❊

You can also explore the recipe as an interactive BreadStorm formula online.



INSANELY INTERESTED IS A PUBLISHER OF MICRO MAGAZINES FOR THE CURIOUS.

A micro magazine is a magazine that focuses on a very specific topic, published online or off by a very small (but passionate) team of writers.

I am Jarkko Laine, stay-at-home dad, writer, the publisher of this magazine, beginner cigar box guitar player, and all-round creative guy from Vantaa, Finland.

I believe that as humans, we are born curious and need to keep learning about different things to enjoy our lives to the fullest. Insanely Interested is here to deliver a small part of that healthy diet for a curious brain.

My love for a dark crust on a soft white crumb combined with a need to find out how things are made lead me to create the magazine you are now reading.

Through small steps, as I keep learning more about how online publishing works, I am building Insanely Interested into a sustainable, long-lasting business that can serve the world by presenting new ideas and stories from people doing things they believe in.

Having you with me on this journey brings me joy.

BAKER'S %: TOTAL FORMULA VERSUS FINAL MIX

by JACQUELINE COLUSSI

Many of us BREAD readers are now familiar with baker's percentages, thanks in part to recent blog posts by Jarkko such as One Formula to Rule Them All, Making Sourdough Bread, and Math for Bakers.

We bread bakers use baker's percentages to develop bread formulas, scale these formulas for our own baking, and communicate with other bread bakers around the world.

In this article, using Dado Colussi's *Chicago Sourdough* as an example, we'll look at the anatomy of a complex bread formula and explore some of the meaning it can convey.

Jacqueline Colussi, PhD is a home bread baker and co-creator of BreadStorm™ Bread Formulation Software (currently for Mac, available for iPad in summer 2014). In her spare time, she leads workshops for Chicago Amateur Bread Bakers and serves as moderator of the monthly #BreadChat on Twitter. She lives in Chicago, USA with her husband and BreadStorm co-creator, Dado Colussi.

Here's an example of a simple bread formula:

Chicago Sourdough

Bread flour		69.51%
Whole-wheat flour		30.49%
Water		77.07%
Salt		2.44%
Levain (60% hydration)		39.02%
	Yield	218.54%
	Total Flour	100.00%

Created with BreadStorm™

In contrast, here's an example of what we call a "complex" bread formula:

Chicago Sourdough

	Total	Levain	Final Mix
Bread flour	75.00%	100.00%	69.51%
Whole-wheat flour	25.00%		30.49%
Water	74.00%	60.00%	77.07%
Salt	2.00%		2.44%
Starter (60% hydration)	3.20%	17.78%	
Levain			39.02%
Yield	179.20%	177.78%	218.54%
Total Flour	100.00%	100.00%	100.00%
Size		18.00%	
Pre-fermented Flour	18.00%		

Created with BreadStorm™

A complex formula is one that includes one or more pre-ferments, with their component ingredients broken out.

Complex formulas follow the pattern that everything in the leftmost column (the "Total" column) is the sum of everything in the other columns to the right.

This is a bit easier to see when we view the formula scaled to some specific weight. In the image below, I've scaled the total flour to 1,000 grams.

Check for yourself that, in each ingredient row, Total = Levain + Final Mix.

Chicago Sourdough

	Total	Levain	Final Mix
Bread flour	750.0 g	180.0 g	570.0 g
Whole-wheat flour	250.0 g		250.0 g
Water	740.0 g	108.0 g	632.0 g
Salt	20.0 g		20.0 g
Starter (60% hydration)	32.0 g	32.0 g	
Levain			320.0 g
Yield	1,792.0 g	320.0 g	1,792.0 g
Total Flour	1,000.0 g	180.0 g	820.0 g

Created with BreadStorm™

What can we learn from the "Total" column of percentages? From the "Final Mix" column of percentages? And how do these columns differ?

The column of Total %s summarizes the dough's overall nature, and allows the baker to think critically about the bread she's planning to make. Total %s answer one of the first questions about a bread a baker often asks: "What's the total hydration of my dough, with all pre-ferments taken into account?"

In contrast, the Final Mix %s are not an accurate reflection of the overall nature of your dough. But they can be especially helpful when mixing up the final dough, to check, for example, if the hydration looks and feels as it should before any pre-ferments are added.

Chicago Sourdough

Think about **Total** %s. ↓

Compare your dough's look + feel to **Final Mix** %s. ↓

	Total	Levain	Final Mix
Bread flour	75.00%	100.00%	69.51%
Whole-wheat flour	25.00%		30.49%
Water	74.00%	60.00%	77.07%
Salt	2.00%		2.44%
Starter (60% hydration)	3.20%	17.78%	
Levain			39.02%
Yield	179.20%	177.78%	218.54%
Total Flour	100.00%	100.00%	100.00%
Size		18.00%	
Pre-fermented Flour	18.00%		

Created with BreadStorm™

Another way to view these columns is that you don't "mix" your Total column. It's a summary, a reference, and helps you compare one bread formula with another.

A formula's other columns, you do mix, in the sense that these columns describe ingredient quantities that go into your mixing bowls.

This is easier to envision when we view the formula scaled to a specific weight. Again, we'll scale the total flour to 1,000 grams:

Check **Total** weights against inventory.

Weigh + mix ingredients from these columns.

Chicago Sourdough

	Total	Levain	Final Mix
Bread flour	750.0 g	180.0 g	570.0 g
Whole-wheat flour	250.0 g		250.0 g
Water	740.0 g	108.0 g	632.0 g
Salt	20.0 g		20.0 g
Starter (60% hydration)	32.0 g	32.0 g	
Levain			320.0 g
Yield	1,792.0 g	320.0 g	1,792.0 g
Total Flour	1,000.0 g	180.0 g	820.0 g

Created with BreadStorm™

In weights, the Total column becomes a different sort of reference. It answers the question: Do I have enough whole-wheat flour in my pantry/inventory to make this bread in this quantity?

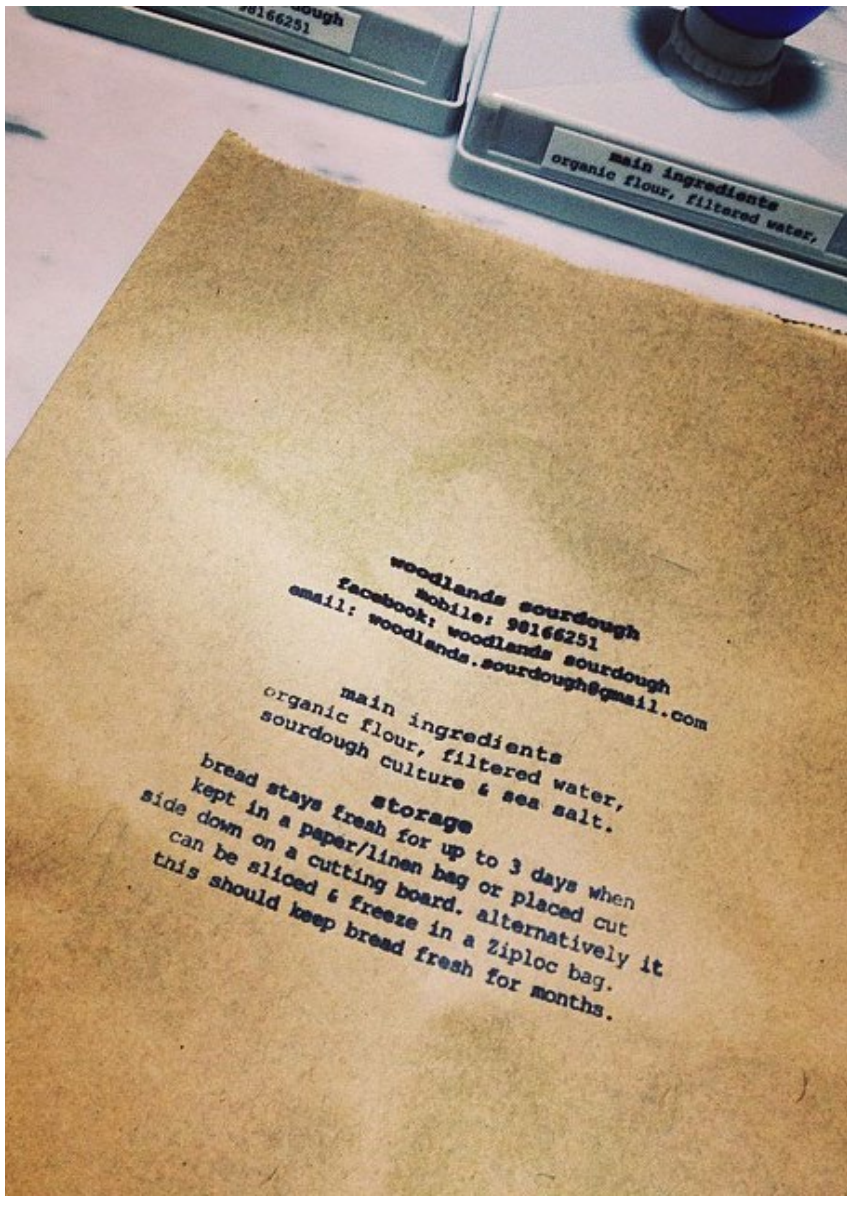
Here's an interactive version of this bread formula. I encourage you to switch back and forth between percentages and weights, and imagine how you would use the information in each column to inform your own baking.

❊ ❊

Editor's Note: Jacqueline will be answering questions inspired by this article in an upcoming blog post on the BREAD blog. Stay tuned (and send in your questions)!


woodlands sourdou


I
REAL
BREAD
SOUR
DOUGH
BREAD


main ingredients
organic flour, filtered water,
woodlands sourdough
mobile: 98166251
facebook: woodlands sourdough
email: woodlands.sourdough@gmail.com
main ingredients
organic flour, filtered water,
sourdough culture & sea salt.
storage
bread stays fresh for up to 3 days when
kept in a paper/linen bag or placed cut
side down on a cutting board. alternatively it
can be sliced & freeze in a ziploc bag.
this should keep bread fresh for months.

HOW TO START A BREAD SUBSCRIPTION

by JARKKO LAINE

When I bake bread or read about people who make and sell bread to their neighbors, I often find myself playing with the idea: maybe I should try my hand at creating a micro bakery myself? I have considered a stand at a farmers' market, a bread subscription, or even just participating in the one day Restaurant Day event. But so far, none of these ideas has lead me to actually getting started and making them happen.

There is always something in the way, it seems: My kitchen is too small. I don't know how to package the bread. I am not familiar with all the regulations involved. What if people don't come and buy the bread?

But maybe the real problem is that I am over complicating things?

In Singapore, Nurhasanah Johari runs a micro bakery she calls Woodlands Sourdough. The bakery was started in October 2013, with the first farmers' market on the fifth of that month — and has been finding a steady following ever since.

Nurhasanah works full time and bakes and spends her spare time (Fridays and Saturdays or Sundays and Mondays depending on the schedule at work) making and selling bread. It's not always easy, but with the help of her husband and friends, Nurhasanah has made it work. Using just a regular home oven with no special equipment.

"So I juggle around that time. Those days I run with not much sleep." She says, laughing.

As I interviewed Nurhasanah about her bakery and her ideas on starting a small scale bread making operation such as Woodlands Sourdough, one thing became clear: the biggest obstacle keeping me (and maybe you too?) from starting my own micro bakery isn't the physical constraints (if your oven is small, you can always use bread tins) but the determination to make it happen no matter what.

But don't take my word for it. Here's what Nurhasanah told me.

❊ ❊

***Jarkko**: What kind of bakery setup do you have in terms of equipment, space, process?*

Nurhasanah: The bakery operates from my mom's flat where we stay (we rent out ours). There're no special equipment.

All is mixed by hand and baked in a normal home oven. Since it's a small oven, I bake in tins. It kills me but we make do with what little we have. When time permits, I do free standing ones or a mix.

***Jarkko**: Why did you start Woodlands Sourdough?*

Nurhasanah: Bread making became more intense and serious, so it naturally extended to the question "what if we sold these?"

My husband is my biggest supporter and my biggest help. He pushes when I need it and when I think it's impossible.

***Jarkko**: Can you go through some of the first steps and thought processes you went through when first starting Woodlands Sourdough?*

Nurhasanah: Just get the ingredients and equipment we needed for the start up.

Jarkko: *Where did you find help and support at the early steps of the process?*

Nurhasanah: It's a husband-wife team. Our families have been supportive too.

***Jarkko**: Why did you decide to go with a subscription plan?*

Nurhasanah: Because the farmers' market over here isn't a weekly thing and the rent is expensive. We did the math and found that offering free delivery is more profitable than selling our breads at the

farmers' market or renting somewhere.

But we do need some exposure and a platform, and the farmers' market gives us that.

***Jarkko**: How much bread do you produce every week?*

Nurhasanah: It varies from 2 to 20+. For the famers' market week most we have done was 56 (inclusive of bread subscription).

***Jarkko**: You have a delicious sounding and looking selection of breads. How did you come up with the selection of breads to start with?*

Nurhasanah: We get inspired by others. Most recently by Tartine Book no. 3. We want to offer nutritious and delicious sourdough bread.

***Jarkko**: Your selection also seems to be changing a bit from week to week. Why is this?*

Nurhasanah: I want to keep things fun, both for the customers and me as a baker.

Basically, I bake what I like taste and look wise (good crust and crumb). I also keep in mind what my customers like. Our oatmeal cinnamon raisin and olive za'atar are customer favorites—for some customers these two are must haves.

That said, we're actually settling on ten breads that will be rotated.

***Jarkko**: Consistency in production quality seems to be a common theme when it comes to running a successful bakery. What do your customers expect from you?*

Nurhasanah: So far, reviews have been positive. But I have some bad days, mostly when I underestimate the ambient temperature and the dough gets slightly over

"Basically, I bake what I like taste and look wise (good crust and crumb). I also keep in mind what my customers like. Our oatmeal cinnamon raisin and olive za'atar are customer favorites—for some customers these two are must haves."

proofed and the oven is not yet ready. I've delivered "flat" bread before and the customers have been very forgiving.

So we're blessed with awesome, loyal customers.

***Jarkko**: What do you do to manage and reach those expectations?*

Nurhasanah: I'm very hard on myself because I bake for my customers like I would bake for myself. I plan well ahead but sometimes I do fail. I do things the same week after week. But with experience, I make some changes that I think will give better bread.

***Jarkko**: How do you handle the subscriptions? Do you have some software to keep track of orders?*

Nurhasanah: I just use Excel to handle everything. I'm not tech savvy.

***Jarkko**: How big a portion of your customers are subscribers versus "random buyers" who find you at the farmers' market?*

Nurhasanah: Two thirds are regulars.

"You've got to really plan well ahead. Like I said, the biggest problem is oven space—or you can retard. So it's either getting a bigger oven or a big fridge which is not really possible due to space constraints."

***Jarkko**: How do you know how much bread to bake on a given week?*

Nurhasanah: For the bread subscription, I bake what's ordered in advance. For the farmers' market I judge by previous market. We rarely bring home more than 10 loaves from the farmers' market.

***Jarkko**: How do you handle the production of the bread? Do you have any tips for producing a lot of bread in a home kitchen?*

Nurhasanah: You've got to really plan well ahead. Like I said, the biggest problem is oven space—or you can retard. So it's either getting a bigger oven or a big fridge which is not really possible due to space constraints.

***Jarkko**: What would you suggest for someone just getting started with a subscription based micro bakery like yours?*

Nurhasanah: Just do it. Start small. Do something different and stick to it.

Jarkko: *Who (or what resource) has helped you the most in building the business? You can name more than one if applicable…*

Nurhasanah: The Fresh Loaf is inspiring. I read a lot of books, most of them I borrow from the local library, the good ones I buy from Amazon.

Then there's YouTube and Vimeo too. Honestly though, with most things in life it's about how badly you want it. Very supportive family and friends help too.

Jarkko: *What type of bread should someone start with?*

Nurhasanah: Simple Country Bread or Pain au levain. For us it's our light wheat for its versatility.


I
REAL
BREAD


MULTIGRAIN
$5/-
FIG
FENNEL
$5/-
SOURDOUGH
Today's
Specials
Fig Fennel
$5/-

***Jarkko**: Do you have anything else you would like to say about running a subscription based micro bakery?*

Nurhasanah: You need to work hard and have the passion. I wouldn't do it if I'm not passionate about it. Yeah it does bring in extra income but it's a lot of hard work, sleep sacrifice. And the money earned is not gonna make me rich. Haha!

***Jarkko**: What do you see in the future for your micro bakery?*

Nurhasanah: Honestly, I just want to keep doing this for as long as I can. I would love to open a bakery but the running costs would probably kill my passion for making bead at the purest form. My worst nightmare is to become a sellout, run of the mill bakery.

❊❊

So, to recap: how do you get started? The short version, in Nurhasanah's words is simple: *"Just do it. Start small. Do something different and stick to it."*

In a few more words, the first steps could be summarized to something like this:

1. Think about your idea and style. How do you bring yourself to your product. Plan, if just a little bit.
2. Pick your first, simple product. Nurhasanah recommends a simple Country Bread or Pain au levain. If you have a masterpiece you like to bake and know can produce consistently, go for that.
3. Figure out a way to maximize your oven usage. Consider baking the bread in tins.
4. Take a look at regulations but don't let them discourage you (at least not until you have read them). The regulations you have to think about vary from one country to the next, but the information provided in Knead to Know is a good starting point no matter where in the world you are.
5. Go to a local farmers' market and find your first customers.
6. When at the market, tell your customers about your bread subscription. If you can, put up a Facebook or Instagram page like Nurhasanah has done with Woodlands Sourdough so that your potential customers have a place where they can find you. Maybe you could also have a simple form for collecting subscriber information with you at the market?
7. Keep it fun and see where the idea takes you. Remember: let's not over complicate this!

NO OVEN REQUIRED

by JARKKO LAINE

Summer is the perfect time for some outdoor fun with family and friends. Hanging out at a barbecue or lighting a campfire in the woods are all great excuses for lively chats and catching up with people while cooking food. No one needs to stay in the kitchen and everyone can participate in making the food as well as in eating it.

For me, summer is also the time of the year when I get to visit our family's summer cottage—and that, as you may remember from the ad hoc oven experiment I talked about in the Winter 2012 issue of BREAD, means experiments! This summer wasn't (and will not be) an exception.

With our ad hoc oven already broken and demolished, I had to think of new ways to bake bread.

After not too much thinking, I had found my idea: I was going to bake bread without an oven.

FLATBREAD

As the first and most straightforward oven free baking experiment, I decided to go with flatbread. After all, flatbreads of many different types are being made all over the world, by people who don't own an oven.

As expected, this first experiment was a success. I baked the breads on a big cast iron pan over an open fire with my family eating the breads as soon as I left them from my hands.

On the next page, you'll find my flatbread recipe. Try it using a cast iron pan on a live fire or on the stove (don't oil the pan)—or without a pan, straight on a barbecue. I have tried each of these methods and they all lead to great results.

Just be careful not to burn the bread!

FLATBREAD FORMULA

Soft, Naan type flatbread

Ingredients	Quantity	Baker's %
Bread flour	500g	100%
Water (slightly warm)	250g	50%
Full-fat Greek style yoghurt	150g	30%
Fresh yeast	10g	2%
Salt	10g	2%

This is a very simple flatbread formula that includes yoghurt (Greek or Turkish yoghurt with 10% fat works best) to give the bread a delicious, soft quality. Because of its simplicity and the forgiveness of the flatbread baking method, the bread has a lot of room for variation.

While the beginner (or busy) outdoor baker might want to go with just the basic formula, it's very easy to turn the dough into a more flavorful version by adding a poolish type preferment to the mix. Retarding the dough's fermentation in the refrigerator can also give a nice added boost of flavor. Similarly, if you like, you can replace some of the flour with wholemeal or othe types of bread flours. And why not replace the water with milk?

There aren't too many limitations so let yourself loose and impress your friends by baking them fresh bread while they wait around the fire!

And now, here are the step by step instructions:

1. Mix all ingredients, then when no dry lumps of flour remain, turn the dough on your work surface.
2. Work the dough until it is well formed (don't add flour).
3. Shape the dough into a ball and place back in your lightly floured bowl.
4. Cover the bowl with a cloth and leave at room temperature until the dough has almost doubled in size.
5. Divide the dough into six equal sized pieces of dough.
6. Form each piece of dough into a ball and place on a baking pan covered with a thick layer of flour. At this point, depending on your schedule, you might want to refrigerate the dough to be used later—or keep it at room temperature to work with right away.
7. Heat the cast iron pan over a campfire (or on your stove). Don't add oil or butter.
8. While the pan is heating, use your hands to flatten a piece of dough into a round flatbread shape.
9. Place the bread on the hot pan and bake until it puffs up and starts to bake. Then flip it over and bake the other side a little while.
10. Eat right away on the side of a nice outdoor dish or as is, with some butter or jam.

SOURDOUGH ON A BIG CAMPFIRE

After the simple flatbread experiment, it was time for something a bit more extreme.

The most important Midsummer tradition in Finland is lighting a big fire. This tradition has its roots in ancient mythology, but nowadays—at least at our summer cottage—it is simply a competition between neighbors: who lights the biggest and most beautiful fire?

But if you have fire, why waste it by not baking bread using it?

So, during the day, I prepared a simple sourdough bread using my basic sourdough bread formula. In theory. In reality, as I had left my scale at home, I had to make the dough by simply throwing the ingredients in a bowl and trying to get them right. The dough turned out a little wet, and by the time the fire was starting to fade and I decided to begin with my baking experiment, it was already a little over proofed.

I didn't care. I just wanted to see if I could bake a decent loaf of bread using nothing but a cast iron pot and a (big) campfire.

I was afraid I wouldn't be able to handle the cast iron pan when hot, so I skipped the pre-heating and just put the dough in a cold pan. Then, I placed the cover upside down on top and using a stick and a shovel, pushed the pan in the middle of the embers. I placed some embers on top of the cover and then I waited.

The results, which you can see on the next pages, were OK for a first experiment, even if the bread was a little bit undercooked and burned in the corner closest to the fire.

Clearly, some practice is needed, and so, equipped with a few lessons learned, I am ready for more experiments.

That, I think, is what summer is at its best.

What will you experiment with?

"This tradition has its roots in ancient mythology, but nowadays—at least at our summer cottage—it is simply a competition between neighbors: who lights the biggest and most beautiful fire?"

WHAT'S NEXT?

This is it. You have reached the end of the summer 2014 (or winter, as one reader from Australia pointed out!) issue of BREAD.

I hope you have enjoyed it and feel inspired and energized, buzzing with ideas to try in your bread making: maybe you are considering new flour experiments, maybe you are going to bake some German bread tomorrow, or maybe you'll light a fire and bake (or burn) a sourdough loaf on a campfire. Either way, I hope you'll have a wonderful time with a bowl of bread dough!

As always, I would love to hear your thoughts on the issue and what you would like to see in the magazine in the remaining two issues this year. So, don't hesitate to email me with your questions, comments and feedback.

When the next issue comes out in September, here in the northern parts of the Earth, we will be—slowly but steadily—marching towards winter, and in one way or another, the magazine will reflect the themes of the season.

If you are already a subscriber, you will receive the issue automatically once it is published. To make sure the email reaches you, it's a good idea to add our email address, contact@insanelyinterested.com to your address book (at least when using Gmail, this prevents the message from getting lost in your spam folder).

On the other hand, if you just found out about BREAD and this was your first experience with the magazine, a one-year subscription is a good way to make sure you'll never miss an issue! It's just $7.99 and gives you three issues (one already published and two upcoming ones) in addition to this one, one for every season. I'd say it's a pretty good deal.

And finally, if you'd like to stay posted on more updates about BREAD and related projects in between the quarterly magazine issues, our "Bread Wizards" mailing list is the place to be!

Now, put your hands in the dough and bake some bread!

Thank you for reading, and happy baking!

Jarkko Laine
Publisher

PHOTO CREDITS

Cover: Jarkko Laine
Pages 2-4: Jarkko Laine
Page 6: Mari Laine
Pages 7-14: Phil Agnew
Page 15: France Bon Appétit (CC BY-ND 2.0)
Page 16: Ilya (CC BY-SA 2.0)
Page 21: Jarkko Laine
Page 22: Mattie Hagedorn (CC BY-SA 2.0)
Page 23: Raluca Micu
Page 24: Ellen King
Page 25: Chip Riegel
Page 26: Eric Laurits
Page 28: Raluca Micu
Page 30: Jarkko Laine
Pages 33-46: Raluca Micu
Pages 48, 50: Lutz Geißler
Page 51: Heike von Au
Page 53: Lutz Geißler
Page 55: Michele Ursino (CC BY-SA 2.0)
Page 56: Jacqueline Colussi
Page 57: Nate Delage
Pages 61-67: Nurhasanah Johari
Pages 69-75: Jarkko Laine