

MEDIA RELEASE

Bern and Burgdorf, Switzerland, 14 March 2019

HKB Goes Ashore – Burgdorf, Switzerland

Cheese in Surround Sound – a culinary art experiment

The experiment was a success, and the results are amazing: the bio-acoustic impact of sound waves affects metabolic processes in cheese, to the point where a discernible difference in flavour becomes apparent – one which can even be visualised using food technology. Put simply, cheese that has been exposed to music tastes different. In today’s public event, held in the Swiss city of Burgdorf in the Emme Valley, the Bern University of the Arts (Hochschule der Künste Bern – HKB) and Käsehaus K3 present the outcomes of their culinary art experiment, entitled Cheese in Surround Sound, as part of this year’s HKB Goes Ashore initiative. The project has already made international headlines, and the HKB and Käsehaus K3 are now exploring ways to develop their new acoustic approach to cheesemaking.

The collaboration between Käsehaus K3 and Sound Arts HKB students is part of the university’s annual HKB Goes Ashore initiative. Every year, the students and their director of studies, Michael Harenberg, join up with partners from a different Bernese municipality to realise a localised cultural project. Burgdorf in the Emme Valley was selected as the location for the 2018/2019 academic year, and Käsehaus K3 was the ideal choice for a local artisanal business. Together, both teams developed the artistic concept and the technological infrastructure to conduct an experiment in which maturing cheeses were exposed to sound over a period of several months. Today’s public presentation concludes this unique culinary art experiment.

Michael Harenberg, Director of Studies, Sound Arts HKB, noted: *“After well over six months, this is the end of the first stage in this experiment which has brought Käsehaus K3 and HKB Sound Arts students together. Each of the eight cheeses maturing at Käsehaus K3 was exposed to a different sound over a period of six-and-a-half months. Once matured, the cheeses were analysed by professional food technologists in a sensory consensus analysis and submitted to a panel of highly qualified culinary jurors in a blind taste test. As composers and musicians, it has been thrilling for us to carry out this project in Burgdorf and to develop the acoustic installation. We are delighted with the results.”*

The results

The Emmental acoustic cheese wheels were subjected to two tests. The sensory consensus analysis carried out by food technologists from the ZHAW Zurich University of Applied Sciences can be summarised as follows: *The ZHAW Food Perception Research Group concluded that the cheeses exposed to music had a generally mild flavour compared to the control test sample. Their report also confirms that the cheese exposed to hip hop music displayed a discernibly stronger smell and stronger, fruitier taste than the other test samples. The report recommends carrying out an investigation on a larger scale in order to confirm the hypothesis.* Please refer to page 3 for a full summary of the results.

Upon tasting the cheeses, a star-studded panel of judges, featuring artists, chefs and politicians concluded that clear differences could be discerned not only in laboratory analyses, but also in terms of the taste. For example, cheeses that were played hip-hop music or low frequencies were both described as slightly sweet. Top chef Benjamin Luzuy, from French-speaking Switzerland, is delighted: *“For chefs like me, these results are fascinating. This opens up new avenues for us in terms of how we can work creatively with food in the future.”*

Cultural, social and economic added value

Peter Kraut, Vice-Director of the HKB's Music department, underscored the relevance of this project as a cultural exchange between artists and artisans: *"The HKB project Cheese in Surround Sound has transferred artistic knowledge to a specific applied context. This has facilitated an unusual cultural exchange – one that has occurred within the materials and in the experimental arrangement, and above all among the people involved."* Käsehaus K3 is renowned for its new and unusual culinary methods when it comes to affinage (or the cheese maturing process). Speaking about the collaboration and the results, Beat Wampfler of Käsehaus K3 said: *"This novel collaboration with the HKB forms the production basis for an innovative product with a significant marketing impact on the entire region."* Dagmar Kopše, Burgdorf's Cultural Officer, added: *"The City of Burgdorf has benefited from this project. In the glare of media attention, we have shown that we are a modern, outward-looking community and regional centre, and that we take a light-hearted approach to our roots and traditions."*

International headlines

The project has enjoyed a tremendous media response at home and abroad. HKB Director Thomas Beck was overwhelmed by the level of interest: *"The Cheese in Surround Sound project has made the headlines. We really did not expect such a response, particularly from the international media. This inspiring idea provides a great opportunity for our university to be seen as a place of learning for creative and committed students guided by dedicated and innovative teachers."*

For more information, please visit cheeseinsound.ch and hkbgehtanland.ch (only available in German).

#HKBGoesAshore
#BurgdorfCulture

Images of the jury, media conference and tasting

Download link: <http://cheeseinsound.ch/#downloads>

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Members of the culinary jury:

- Stefan Berger, Mayor of Burgdorf
- Roland Sahli, CEO of Gourmino AG
- Anton Wyss, artisan cheesemaker, including cheese from Switzerland's Muttten region and acoustic cheese
- Andrea Staudacher, chef specialising in insect dishes
- Celia Sidler, artist
- Benjamin Luzuy, TV chef
- Moderator and jury spokesperson: Peter Kraut, Vice-Director, HKB Music department

Extract from the ZHAW report:

- As part of this project, a control cheese and other semi-hard cheeses which had been exposed to different types of music were tested in terms of their sensory properties. The hypothesis was that exposing the semi-hard cheeses to different types of music during the maturing process would cause different sensory properties to develop in the cheeses. **The following points were taken into account when the cheeses were produced: the milk used had to come from the same farmers and be processed in the same vat.** Eight wheels of cheese were matured in special boxes, with each one exposed to a different type of music (hip hop, rock, classical, etc.) or low-, middle- and high-frequency sound waves (sine waves). The control cheese was not exposed to any sound, although it was matured in a special box.
- Core samples were taken from the cheese wheels for the sensory screening tests immediately before the evaluation. Each core sample was approximately 10 cm long and 1 cm in diameter. Each tester received half a core sample, served to them on odourless and flavourless paper plates with random three-digit codes. The sensory screening of the cheese samples was carried out based on a consensus profile in accordance with DIN EN ISO 13299.
- In general, it can be confirmed that the discernible sensory differences detected during the screening process were minimal. The conclusion that these differences did indeed confirm the hypothesis, namely that they can clearly be traced back to the influence of music, is conceivable, but not compelling.
- The most obvious differences were observed in strength of flavour, the smell and the taste. The core sample from the control cheese displayed the strongest smell and taste, along with the sine 2 (medium frequency) sample. It was also noted that the hip hop sample topped the list of all cheese exposed to music in terms of fruitiness and was the strongest of these in terms of smell and taste.
- More extensive testing is required in order to determine whether there is a link between exposing cheese wheels to music as they mature and discernible sensory differences. This would also require additional levels of standardisation in cheese production. Furthermore, a greater number of semi-hard cheeses would be required to ensure sufficient test material is available.

About the HKB Goes Ashore initiative

The HKB is breaking new ground, with students in Bern and Biel getting out of the workshops, rehearsal rooms and lecture theatres and going out into the community. The annual HKB Goes Ashore initiative provides a somewhat unconventional platform for cultural variety in the canton of Bern, with around 350 municipalities which make up the region invited to submit their ideas for artistic projects, which are then realised as part of a year-long partnership with teachers and students from the HKB. The artistic collaboration between the HKB and the municipality of Burgdorf began in September 2018 and ran until March 2019. Over the course of a semester, students from various university departments worked with partners from Burgdorf to develop projects and present their findings. The starting point was the topic Out Learning Your Craft, which represents a direct link between urban and rural ways of life while demonstrating the HKB's commitment to its regional identity and artistic education which encourages innovation, curiosity and just a dash of humour. It also enables some of the region's most forward-looking businesses to engage with HKB students to create inspiring experiments and projects that combine art and entrepreneurial innovation.