

# ICATS NEWS

AUTUMN 2017



## EDITOR'S NOTES

Ali Green

Welcome to the Autumn edition of ICATS News from a rather grey Plymouth. We at ICATS have had another busy six months participating in some fabulous events as well as researching various areas that we hope will of interest to our readers.

Our intrepid new consultant, Mandy Burns ventured to Amsterdam to attend the Flavour Convention Table Talk event in February. Read on to discover how she fared in the vibrant and idiosyncratic world of flavourists and flavours.

This year saw a rejuvenated Workshop Weekend organised by the British Society of Perfumers and ICATS. In this issue read about the new format, new location and new style of activity that the delegates undertook back in March. The event was really well-attended and a hugely enjoyable and enriching experience for everyone who participated.

Mandy was on the road again in March along with Sharon Heard, this time to Whittlebury Hall for the British Society of Perfumer's One Day Symposium which had a literary theme this year. Read on to see how two different creative worlds interacted in what was a highly memorable event.

There are two people to meet in this issue: one is our IFEAT Medal-winning student Ruth Bare, who describes how ICATS has helped her in her career in quality control. The other is Tony Dallimore of Phoenix Fragrances, who sheds light on his varied and illustrious life in the world of the aroma trades as well as looking to what the future could hold for the industry.

Tony Curtis has delved into his bookshelf again to provide two very different reviews for publications that are not only authoritative but also incredibly interesting and illustrate two contrasting areas of the aromatic world: urban smellscape and the science of smell. In the News section, Tony explores the notion of accuracy in the media and how this impacts on the industry as a whole. At a time when the media has more impact over us from so many platforms, he provides a valuable insight into how the industry can respond with critical evaluation to some of the media's scaremongering.

I hope you enjoy the articles in this edition and as ever, please don't hesitate to contact us on [aroma@plymouth.ac.uk](mailto:aroma@plymouth.ac.uk) if you have anything you would like us to include in the ICATS News Spring 2018.



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IFEAT

# MANGA AND ANIME THEME, EXPERT BLENDING TUITION AND GREAT NEW VENUE FOR THE REFORMULATED BSP WORKSHOP WEEKEND



## ALI GREEN

This year's BSP Workshop Weekend was not only at a new venue in Manchester, but also had a fresh structure to not only enable delegates to develop their formulation skills, but also to provide more time for the syndicate groups to work on their fragrances and marketing concepts. Under the direction of the Kate Williams (Seven Scent), then President of the British Society of Perfumers, the 2017 BSP Weekend underwent something of a makeover and with my first year as the ICATS lead I wanted to develop a different style of brief for the syndicate work too.

The first innovation was the change of venue to *Hotel Football* in Manchester; this made Sharon Heard and my visit very easy and convenient from the West Country by air. *Hotel Football* is positioned literally next door to the legendary *Old Trafford* Manchester United football ground (our view out of the window) and the whole hotel is full of football memorabilia and imagery, including the bedrooms.

We arrived slightly late to the party and were very sorry to have missed Virginie Daniau's talk on the history of fragrance. As soon as we were in the hotel, it was time to get down to business. After Pia Long had given an excellent talk on marketing in the aroma trades, it was time for me to present the brief to the waiting delegates, who were really eager to get stuck into their syndicate work. This year the focus was on the teen market with a mind to the tech-savvy generation and, as a departure from previous years (where each group had a different brief) we gave all groups the same project to work on. In a matter of two days, the syndicates had to develop a new body spray or Eau de Toilette aimed at young people (aged 12-18) who read Manga comics and/or watched Anime films or TV. This cult animation style has a massive following and could be a lucrative avenue with the right product concept and positioning. Delegates not only had to develop at least one fragrance, but they also had to consider the customer profile, including the



Sharon Heard at Old Trafford



Wessel Jan's blending training



Students working on the brief

advertising and selling platforms that would access this specific market sector. They were tasked with creating a presentation about their product concept and anticipated marketing activities to be delivered on Sunday morning as well as developing a fragrance that fitted with their concept. There were plenty of avenues for them to explore and choices to be made with regards to narrowing down the target age range or focusing on a specific gender or nationality. As this was not a specific media tie-in product and was not tied to a particular Manga character or series, there was also a lot of scope for homing in on a particular subgenre: there are male and female heroes, all manner of monsters and a variety of themes including romance, super-hero, detective thrillers, fantasy, sci-fi, adventure and even pirates. As all the groups had the same brief, it was interesting to see the direction they went in.

On Saturday morning, there was a combination of lectures and syndicate time. First of all, Roger Duprey gave a fascinating and authoritative talk on aroma chemicals, to give a good grounding on how a variety of aroma chemicals can be sourced from modest origins, with a focus on terpenes. Virginie Danau then gave attendees the low down on the key role of the evaluator. This gave them a good idea of what the judges would be looking for when assessing their fragrances and product concepts and conveyed the exacting standards that new projects are subjected to within the industry.

The delegates were treated to an excellent session on blending from expert perfumer Wessel-Jan Kos of *Firmenich*. His easy guide to the wealth of the fragrances on the perfumer's palette proved to be enlightening and comprehensive while his great sense of fun permeated a great session that was not only really valuable, but also incredibly entertaining. He was also on hand to help the groups with their formulations and advise on how they could improve their concoctions.



Not long after lunch, there was a surprise in store for the BSP Ambassador, the irrepressible John Bailey who was due to turn 90 years old the following week. A special cake and some bubbly had been organised for him and for once he was actually speechless! During the weekend he was full of enthusiasm and offered lots of valuable advice to the delegates - a wonderful place to be in your ninth decade.

Delegates were then brought back down to earth with a comprehensive overview of the regulations that all those working in the aroma trades must adhere to when developing new products. This somewhat 'dry' subject was broken down into simple steps by Sophie Regazzoni who managed to explain not only why the regulations were in place and what aspects of manufacture they cover, but also made it entertaining.

After some more syndicate time, delegates were then treated to a fabulous flavour exploration session focused on cocktail making by the ever-dynamic Steve Pearce from Omega Ingredients. First, we had to taste gin martini to decide whether we had a preference between shaken and stirred – there was no conclusive answer to this, but we all enjoyed the drinks! He produced some fabulous cocktails, including a special recipe for the BSP President Kate Williams. His finale was a recreation of the 'pan-galactic gargle-blaster', the legendary cocktail featured in Douglas Adams's comedy science fiction classic *Hitch Hiker's Guide to the Galaxy*. This drink, served at the Restaurant at the End of the Universe is considered to be the "Best Drink in Existence" and its effects are similar to "having your brains smashed in by a slice of lemon wrapped round a large gold brick". Steve obviously did not have access to the cosmic ingredients detailed in the book, but created a pretty lethal looking green vaporising drink with a real kick to it that was not for the faint-hearted! After some networking over dinner, most of the delegates were off to



Cocktail table

1 [http://hitchhikers.wikia.com/wiki/Pan\\_Galactic\\_Gargle\\_Blaster](http://hitchhikers.wikia.com/wiki/Pan_Galactic_Gargle_Blaster)

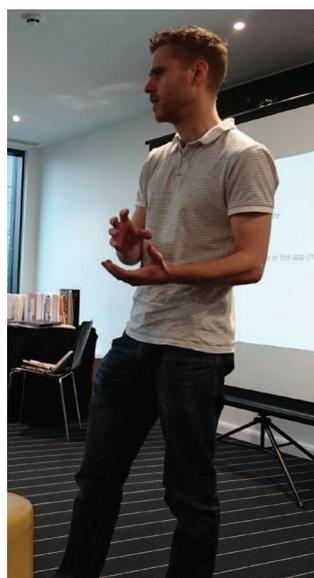


*John Bailey's birthday*

bed pretty early before the final rush to the finish line the following morning.

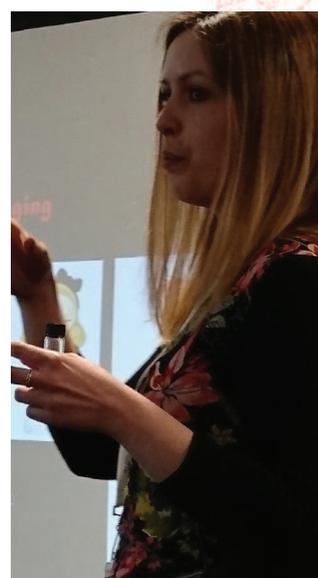
The following morning began with a session that was designed to push the delegates out of their comfort zone by teaching them circus skills including juggling and plate spinning. With everyone suitably at ease, final touches were put to the presentations and fragrances and then it was time for the big moment.

Despite the groups having the same brief, each one had gone in decidedly different directions, with some groups deciding to present a range of fragrances and others focusing on a single offering in the eau de toilette range.



*Student Presentations*

We had some excellent brand concepts and names, with some very innovative work undertaken on getting to grips with the customer profile and brand ideas. Every presentation was lively, colourful and also slightly crazy as a consequence of the stimulus material. There were also some really cracking fragrances in evidence, showing that Wessel-Jan's blending session had a really positive impact. As judges, we had a very tricky decision to make balancing up all aspects of the presentation, but in the end, the *Elemenz* group pipped the others to the post, each winning a book or module of their choice from the ICATS study package. Their ideas for a range influenced by Japanese spirituality involving the elements and a unisex fragrance that really worked were truly original and



*The whole group*



*The winning group*

were also presented in a highly professional way. Their odour description was really evocative: “the marine-citrus fragrance opens with a loud fizzy bergamot with a powerful water-floral heart with jasmine accents, rounded with a soft base of vanilla musk.” The group also had a very specific idea of where and how their product would be marketed and how it would be packaged. They responded well to some tough questioning from the judges, holding their own and were worthy winners!

I would like to thank the BSP Committee for their very warm welcome to Manchester, in particular to then president Kate Williams. It was great to collaborate on such a worthwhile and enjoyable project and we look

forward to other joint ventures in the near future. Both ICATS and the BSP would like to extend their sincere thanks to IFEAT for its continued financial support of this venture without which it would be a real challenge to offer this opportunity for expert industry-focused education.





# FLAVOUR CONVENTION:

## THE FUTURE OF FLAVOURS IN EUROPE

FLAVOURTALK AMSTERDAM - 22/23 FEBRUARY 2017

MANDY BURNS AND KATE SMITH

Dr David Baines of Flavour Horizons hosted a pre-conference dinner at Haesje Claes, in a wonderful 1520 building right in the heart of Amsterdam. The convivial atmosphere of the evening set the tone for the event with David welcoming colleagues from as far afield as Chile, Columbia, the US and Hong Kong. It was an excellent opportunity for delegates arriving early to network in a friendly, social setting.

### TABLETALK EXHIBITION

By 8am on the following day there was a real buzz with many of the expected 190 delegates arriving early, happy to be back at the Barbizon Palace in the newly refurbished and beautiful St Olaf's Chapel. The event had attracted the largest number of delegates ever and Kate Smith and I barely had chance to set up before we were busy answering enquiries. Over the two days we were pleased to talk to a wide range of enquirers and took every opportunity to introduce ICATS to the delegates by joining in sessions and at the stand during breaks.

There was quite an excited hum in the conference area as delegates settled to the table top sessions. Companies showcasing new products had set up samples and activities and as delegates were asked to rotate tables at regular intervals across the course of the day, there was ample opportunity to see a range of products and

to discuss issues impacting on the industry and for us newbies to gain excellent insight into a range of the visiting businesses. Table activities were mostly "hands on" so it was really interesting to sniff, taste and sample. It was wonderful to share in this experience and to see, first-hand, such a wide range of innovative developments.

Kate and I both started at the *Capua* table, meeting Laurent Bert who introduced us to his 5th generation Southern Italian business, creating highly concentrated natural products. We were treated to anecdotes relating to bergamot and its former use in tobacco flavouring and its present use in 55% of male and 60% of female fragrances. It was interesting to see how the business was looking at ways to use waste peel to add economic value to the business and create longer term stability through diversification.

After this initial table top session, Kate and I split up so that we could visit more tables and reach more companies. My next venture was to *Wild Horizons* where I was treated to a "test" and presented with some wonderful scent and flavour samples from their spices, 60+ fruit and 120 plant extracts. I was also able to learn much about mint and its production. *Axxence* was my next table where we were joined by the owner of the company and introduced to some new and experimental biotech products. *Mane* was my next stage landing: They offer a range of natural lactones obtained by biotechnology and have recently entered a strategic partnership with *Jeneil Biotech*. We sampled enhancers relating to creamy coconut, coriander, bitter orange, timur pepper, vanilla and mint. *Advanced Biotech Europe* was my next station stop where I was able to sample some of their products using natural flavourings and materials. My last table session was with *Robertet*, another family business. This was a particular treat as we were able to sample some of the products in champagne. The ginger syrup worked particularly well I thought! Other flavours included raspberry, ambrette, iris and jambu, a South African dried fruit.



## DAY TWO: OPPORTUNITIES, TRENDS AND CHALLENGES

A series of nine presentations picked up on many themes raised in the table sessions. These included evolving technologies, regulatory affairs and issues relating to consumers.

Professor Ralf Berger of Hannover University took us through his recent work on the production of L- arginyl dipeptides and lignans for use as salt taste enhancers and also broached on sugar substitutes. Benoit Palmo of *Evo/va* then outlined some evolving technologies in what he called “brewing” speciality ingredients, working collaboratively with companies to bring products to the market. He also introduced some interesting new products under patent which will be introduced to the market in the near future. This included a sugar substitute and a resveratrol capsule with the potency of six bottles of red wine. *Evo/va* has also invested heavily in technologies to help with gene isolation to optimise economic and value added uses e.g. for very expensive products such as saffron.

Dr Craig Duckham of *CD R & D Consultancy Services* gave an interesting presentation on advances in micro and nanotechnology to improve flavour impact and stabilise volatile ingredients. He used work on yeast to illustrate developments in encapsulation.

Dr Carolyn Fisher of *Decernis* tackled the knotty issues surrounding regulation in a very thorough analysis. This issue was also picked up by Dr David Baines (Flavour Horizons) at the start of the afternoon and is one of considerable concern to the industry.

It was a very different focus for David Turner of *Mintel* who turned our attention to consumer needs and trends with some very interesting insights into emerging trends and preferences, highlighting some national differences. Dr Lisa Methven of Reading University followed by guiding us through her research on individual differences, perceptions and preferences from the perspective of sensory science. My afternoon concluded with listening to Dr. Carol Raithatha (Carol Raithatha Ltd.), a sensory evaluation and consumer research consultant, who looked

at consumer-based sensory testing using a variety of methods including IT and virtual reality.

Key themes and impacts raised on day two included:

- **The very complex and challenging issues of regulatory affairs and the need for global harmonisation**
- **Rising costs of raw materials and effects of climate change and the need for consistency, sustainability and quality**
- **Demands for purity and naturalness in products but contentious issues of interpretation, particularly in relation to what is “natural”**
- **Greater interdependence of the supply chain and possible knock on effects of not knowing elements of that chain beyond immediate customers and suppliers**
- **Emerging technologies in biotechnology and nanotechnology, for example and the need for safety, quality and purity**
- **The increasing need for “value added” in business e.g. in use of waste materials**

There were a few, literal, clouds on the horizon on day 2 as news began to filter through of problems at Schiphol, following the crash landing of two planes, thankfully with no loss of life. There was, however, runway damage and the threat of cancellations. Many did, indeed, face difficult homeward journeys and Kate and I would like to extend our very best wishes to those affected and to hope that everyone reached home safe and sound. We would also just like to extend our thanks to the friendly, efficient and professional staff of the Barbizon Palace who just couldn't do enough to help. In the end, it took more than Storm Doris to put the dampeners on what was a very enjoyable and excellent event.

For the abstracts from this event see <http://www.flavourhorizons.com/flavourtalk-amsterdam-conference-lecture-synopses/>



# THE SCENT OF WHITTLEBURY HALL

MANDY BURNS AND SHARON HEARD

**We approached the commanding presence of the Hall with tremulous trepidation, carriages from far flung regions catching a glisten of light from the weakening afternoon sun. It was a propitious start full of possibilities, the air buzzing with the heady, sweet scent of summer hedgerows, mysteries just waiting to be revealed at the 35th BSP symposium.**

Ok I will stop! Well, the theme for the day was storytelling and after a warm welcome from out-going President, Kate Williams, we launched straight into literary matters. The opening session, led by distinguished author, publisher and academic Marta Dziurosz, focused on the way scent is used in literature and how books have sparked olfactory trends. She invited us on a voyage of discovery using passages from a range of sources showing how scents were used to suggest an encounter, evoke emotions and eroticism, spark a memory (the past, a person, a place) or to anticipate some future possibility. A full list of these sensory treasures of literature can be found at <http://www.bsp.org.uk/martas-reading-list-lecture-ods/>. Having shown the infinite ways that scent can inspire literature, three perfumers were challenged to produce scents based on literary rather than commercial specifications and to talk us through the process.

From this point in proceedings, work was conducted in break out groups where there was plenty of “nose on” opportunity to check out new products. *Givaudan* drew us into tales of the unexpected with their search for new molecules, particularly those synergising well with vanillin. *Robertet* enticed us into their world of spices with a most interesting look at both spices and producers, presenting a gorgeous assortment of tonka beans, star anise, ginger, Sichuan pepper and cardamom – true delights to the senses.

*IFF* directed our attention to raw materials, new products and new molecules that promoted cleaner production methods and enhanced sustainability. A pack of renewable materials will be produced later this year. *Bedoukian* led us through their featured fragrance products, citrus, floral, fresh, fruity, gourmand, green and herbal notes for adding that “extra something” to boost the fragrance creation.

The break periods gave Sharon Heard and I the opportunity to catch up with some familiar faces and others who were new to us. The ICATS stand was buzzing with activity and interest in the distance learning course and it is always a pleasure to talk to those who are interested in learning and in developing their skills.





During the lunchtime interval we had the pleasure of meeting two medical detection dogs, Simba and Luna. They had been brought in by their owners who were also representatives of 'Medical Detection Dogs', the chosen BSP charity for 2017. It was very special to see the dogs working with their owners, indicating when their human charges needed to take their medication resulting from minute body odour changes. This was a fascinating illustration of the importance of smell and the sensitivity of canine noses!

Those who did not have to rush off were indulged with dinner and dancing in the Formula One Suite, allowing them to soak up more motor racing memorabilia which featured heavily in the Hall, being so close to the iconic Silverstone racecourse. It was a treat to see Simba, Luna and their owners join us all for the dinner, the dogs handling it all in their calm and stoic way.

So we came to the sense of an ending but with a few remaining revelations in the inauguration of Virginie Daniau as the new incoming President alongside the awards ceremony celebrating the talents and creativity of the perfumery industry. The evening concluded with a chance to dance the night away in celebration of another fabulous symposium from the BSP.





## MEET RUTH BARE

### THE ICATS WINNING STUDENT OF THE IFEAT MEDAL 2017



I currently work in the regulatory department at CPL. In my day-to-day job I read legislative text, I interpret and summarise regulations for my colleagues and customers alike. We endeavour to sell fragrances that are in line with current regulatory requirements in the markets we are active in therefore my daily duties also include producing regulatory paperwork for the fragrances we produce.

The course allowed me to get out of the 'regulatory' bubble and appreciate the different roles within an aroma trades company. It allowed me to interact with colleagues from departments such as Marketing and Finance and to be aware of the crucial parts they play in the making of a fragrance oil.

I thoroughly enjoyed studying whilst working because although it was challenging at times, it was nice to relate the theory part of the course with my day-to-day job. When I read about a department, I also had a chance to go in and talk to the people that work in that department. This allowed me to build new relations and widen my network within the company.

# WHO'S WHO IN THE INDUSTRY?

## TONY DALLIMORE - A LIFE IN PERFUMERY

While it is true that my first job in the Perfumery Industry involved driving a forklift every day, however, it was not a part of my perfumery training! It was a regular vacation job in the stores at Gala Cosmetic Group in Chessington, Surrey where, after graduating, I secured a technician's position in the Perfumery Laboratory to elevate myself up the newly-graduated pay scale with some laboratory experience. The company Perfumer was Len Glausius who soon discovered that I had a very good odour memory and recall. He mentored me for the next four years and I was on my way to a life-long career.

In 1974 I moved to PFW in Greenford and worked as a Junior Perfumer under Chief Perfumer Ron Titchener and two talented senior perfumers – Frank Kenton and John Wilson – all the time learning and practising my craft whilst working on live projects. Later on in 1975 I moved to UOP in Epsom as a Perfumer with Chris Clements as my boss and alongside Alan Jagot. UOP had a very successful creative team and it was a great thrill to be a part of it. It was at Chris's suggestion that I joined the British Society of Perfumers (BSP) and began a career-long association with the organisation.

The BSP always provided a forum for perfumers and industry professionals to get together but rapidly moved with the times under the guidance of a number of Presidents to begin to take a role in education. The renowned BSP Workshop Weekend was born and the first of these, held at a hotel in Oxfordshire, was a sell out and a huge success. It was open to all disciplines and saw perfumers, evaluators, technicians, sales personnel, secretaries, trainees and juniors listening to definitive lectures and working in mixed groups on a specified brief. It culminated in a final session presentation to the expert panel and the rest of the delegates. No easy task! I was fortunate enough to be asked to deliver the lecture on creative perfumery at the Workshop for a number of years and had the pleasure of meeting so many people now in our industry. Much of the success of the Workshop Weekend was due to the practical and financial support of IFEAT and the participation of the ICATS team, especially Dr. Tony Curtis.

Since 1991 I have been Perfumery Director and joint owner of Phoenix Fragrances which has grown from small beginnings to an SME employing over forty people. Four of us are perfumers who form the Creative Group in the Development team. Like many perfumers in the UK we train ourselves "on the job" but take advantage of workshops, symposia, demonstrations and conferences to enhance our knowledge and advance our craft.

The rate of change within the Perfumery Industry is rapid. We are trend-setters always searching out novelty, fantasy, innovation, technology and inspiration. Alongside this are drivers of regulatory change: legally via Cosmetic Regulations, advisory via IFRA Standards and defined specific customer requirements.

Can you imagine creating without Iso E Superm? Using Hedione at low levels due to restrictive cost? Ambroxan existing only as a part of Fixateur 404 and no consumer interest in ozonic/marine notes, or oudh, saffron, fig or pomegranate? This is how it once was and how the industry has evolved. Some of the key materials when I started were Vertofix Coeur, Vertenex for the woody notes, Hexyl Cinnamic Aldehyde, Benzyl Acetate for the jasmine notes, Galaxolide for musk, and Lilial, Hydroxycitronellal and Lylal for the muguet accord. Some of today's current ingredients and notes will soon be yesterday's fragrance to be superseded by – who knows? Without doubt, sustainability is one aspect we must embrace and we have to find a way to satisfy the increasing demand on our primary resources.

Challenges, changes and opportunities consistently present themselves to our industry and we have managed them through professionalism, ability, dedication and education. As a Past President of the BSP and former Chairman of IFRA UK, I have seen us accommodate them all. I confidently expect the industry to continue to march forward because consumers love fragrance – nearly as much as we, the professionals in the Perfumery Industry, do. I fully intend to continue my career in our most rewarding, most enticing, fabulous industry. It is a privilege to have such a job.



# BOOK REVIEWS

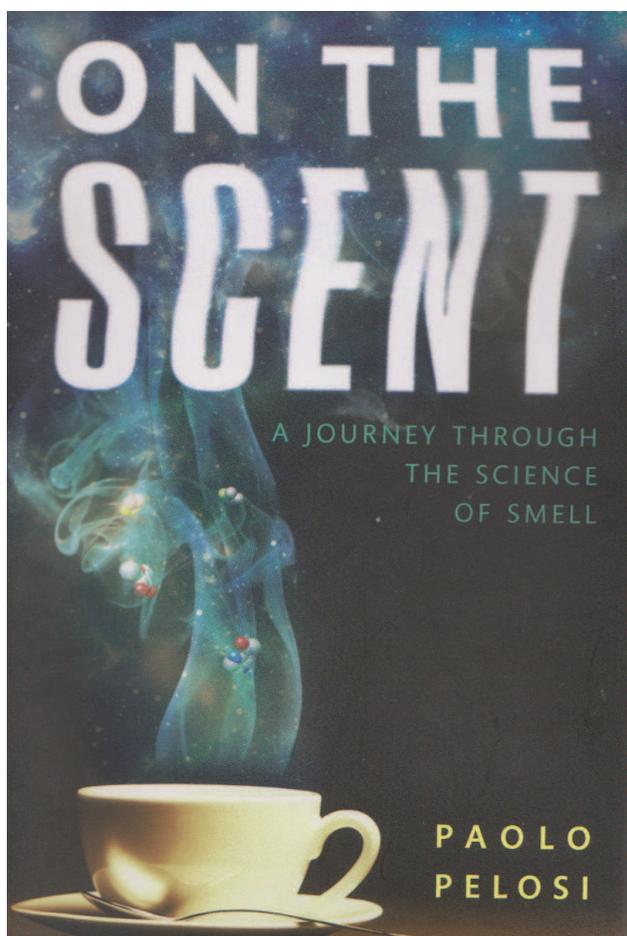
DR TONY CURTIS

## On the Scent: A Journey Through the Science of Smell

Paolo Pelosi

2016 Oxford University Press,  
Oxford ISBN 978 0 19 871905 2

Hard cover £ 18.99



### Part 1 Smells and Molecules

- 1 Molecules in the Air: Smells in Our Everyday Life
- 2 Smell and Molecules: Chemical Analysis in the Nose
- 3 Sniffing Our Way Around: A Walk Among Smells
- 4 The Olfactory Code: A Chemical Language

### Part 2 Messengers of Sex and Danger

- 5 Insect Pheromones: Fatal Attraction
- 6 Mammalian Pheromones: Smelling Ranks and Kinship

### Part 3 Proteins and Smells

- 7 The Biochemistry of Olfaction: Odorants Meet the Proteins
- 8 Odorant-Binding Proteins: A Family of Versatile Molecules
- 9 Receptors and Beyond: From Odorants to Emotions

### Part 4 At the Edge of Imagination

- 10 Science or Magic? The Debate on Human Pheromones
- 11 Digital Olfaction: Detecting and Reproducing Smells

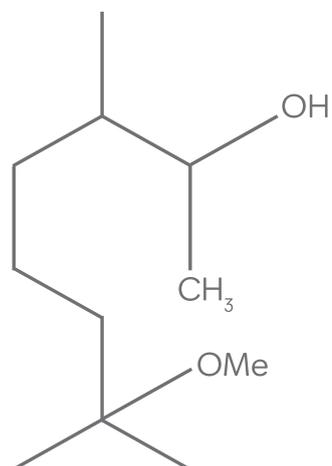
Interestingly this book starts in the same area as *Urban Smellscapes*. The smell trail is a bit more exotic, describing the smellscape of a market in south-west China from the delight of jasmine flowers to the mouth-watering (possibly!) durian fruit. It appears that there is one constant: the smell of the public lavatory. The book is itself a journey; on page 27 we start the account of smell and molecular structure. Paolo Pelosi poses the key question that has been the 'philosophers' stone' for aroma chemical researchers:

Is it possible to predict the odour of a chemical substance merely by looking at its molecular structure?

And conversely - can we design a molecule with a desired odour?

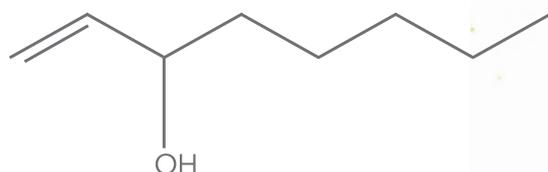
Paolo gives his emphatic endorsement 'No!' by quoting Charles Sell's paper entitled 'On the Unpredictability of Odours'. In an earlier ICATS News Letter I commented on the serendipity of aroma chemical research when we investigated a process to make l citronellol. This process proved uneconomic but the by-product has proved to be a valuable but odd sandalwood material. Who would predict this would have such a note?

#### Osyrol

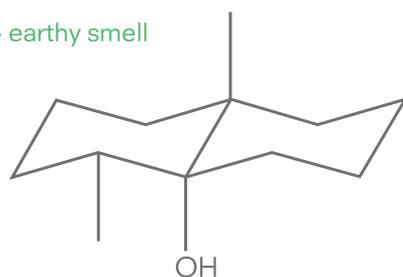


We later progress to discuss two apparently different molecules with similar odours:

#### 1 – octen-3-ol – mushroom smell



#### Geosmin - earthy smell



R&D Aroma Chemists do not yet have the tools to design molecules with precisely defined odours.

I found the last chapter on Digital Olfaction most interesting and informative. A hot subject a decade ago was to produce the artificial nose. Much of the activity was designed around sets of conducting polymers. I completely agree with his summary 'The name artificial or electronic nose was too appealing to be replaced by more realistic ones'. They are in fact interesting chemical sensors but in no way an electronic replacement of the nose. The limitations of the approach are reviewed in the section 'From chemical sensors to a sniffing device'.

At the end of my review of current news in this News Letter, I ask readers to always apply critical insight to published material. I am reminded of a Sherlock Homes (the famous end of the 19th century literary sleuth created by Conan Doyle) story. The key to solving the mystery was the lack of evidence: 'The dog didn't bark'. In applying this rule to this book, what is missing? The answer is no reference, as far as I can see, to Luca Turin and the Vibration Theory of Olfaction. I suspect the weight of evidence has now eliminated this as a viable hypothesis for the general mechanism of olfaction. Is this a rather peaceful end to a controversy that has lasted more than 20 years?

This timely book is interesting and informative. It is readable, but does require a basic understanding of Organic Chemistry. For the serious researcher the seven pages of carefully researched notes and references take you into the primary literature. This is a fitting addition to the Perfumery bookshelf.



# BOOK REVIEWS

DR TONY CURTIS

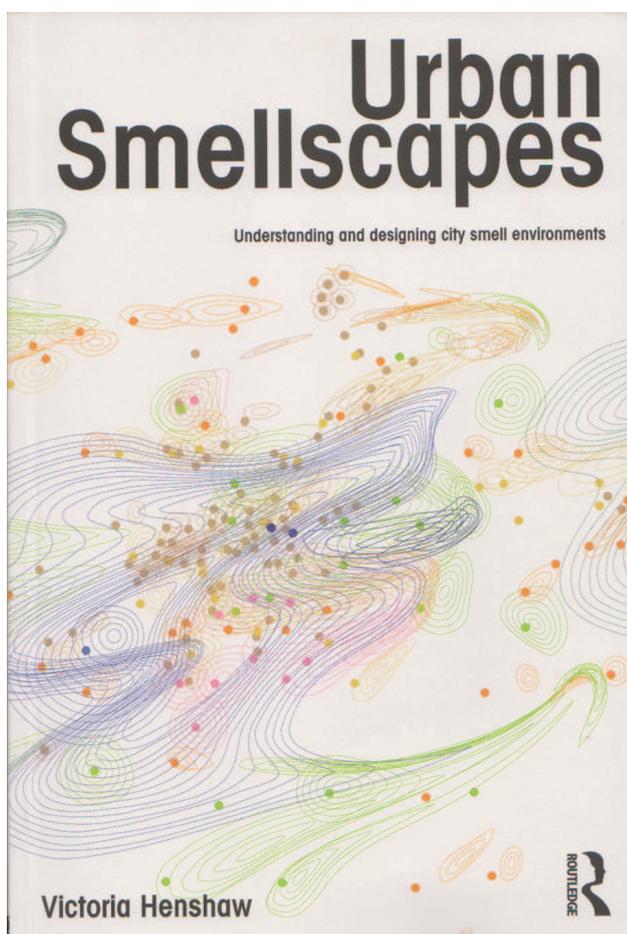
## Urban Smellscape: Understanding and designing city smell environments

Victoria Henshaw

2014 Routledge

New York ISBN 978 0 415 66206 2

Hard cover £105, Paperback £34



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- 6 Food and smell
- 7 Urban policy and smell

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- 8 Process of odour control in the city
- 9 Designing with smells: Restorative environments and design tools
- 10 Odour, placemaking and urban smellscape design
- 11 Conclusion

When reviewing the current literature, emerging themes appear. In the last edition of the ICATS News Letter we reviewed *Past Scents: Historical Perspectives on Smell* and I discussed the chapter *Mapping the Smellscape: Smell and the City*. Victoria's excellent and timely book takes us further into the future of current city smellscape with recommendations for the management of the smellscape e.g. Chapter 9 *Designing with smell: Restorative environments and design tools*.

The theme of smell and the city was reinforced in Victoria's introduction. In reviewing *Past Scents* I commented on the classical work *The Foul and the Fragrant*. This contains the claim that 'Today's history comes deodorised'. I certainly agreed that people have become less aware of odours. Indeed, our cityscape is different. In the second paragraph of *Perfume: The Story of a Murderer* Patrick Suskind paints a vivid picture:

In the period of which we speak, there reigned in the cities a stench barely conceivable to us modern men and women. The street stank of manure, the courtyards of urine, the stairwells stank of mouldering wood and rat droppings ....

I went on to write 'Possibly in our modern city life we do not overdose to this extent'. One of the values of wide reading is to change and extend one's perspectives. In this case, I have revised my point of view. Victoria gives a graphic account in her introduction with:

One sunny afternoon in July 2012, my family and I made our way through Paris on a very busy Metro train .....the doors opened ..... I became aware of first: a dry, dusty, powdery smell hung in the air..... What I had first thought might be the product of some mischievous act was revealed as the combined odours of strong food spices, dust and car fumes.

Well, no manure, urine or rat droppings but still powerful smellscape effects. I rather like the smell of spices and indeed garlic from continental restaurants! Section 3.4 Smell perception should be essential reading for all Evaluators and Perfumers. What represents 'a nice' and 'a bad' odour is discussed. This is nicely illustrated by three charts on the topic. No surprise that coffee comes high on the list of like preferences. I have seen other reports and was not personally surprised to find that petrol / diesel comes around 5th out of 10 of most liked smells. It is only just behind cut grass and flowers! I have no idea why this should be so! If you have some light to throw on this, please do contact us.

Again, it is no surprise that body odour tends to rank right at the top of the least favourite odours. It is closely followed by cigarette smoke. In the UK a few years ago an odd effect was noted. Complaints were received about the atmosphere in busy night clubs and bars. The law had changed and it was no longer permissible to smoke in public spaces. The stink of many sweaty bodies in the closed environment had been masked by the odour of cigarette smoke! Life has not changed much: we removed

manure, urine and rat droppings in the 20th century and in the 21st century we removed the smell of cigarette smoke and we still have problems! The author takes this thoughtfully forward in chapter 10 Odour, placemaking and urban smellscape design. Interesting this chapter starts with a discussion on of the issues in the context of Grasse (it is not all pleasant smells).

The beauty of this book is that Victoria always maintains a critical perspective. Section 6.1 Markets should appeal to Flavourists, Perfumers, Evaluators and Marketers. In a pertinent quotation, she succinctly illustrates the dilemma:

...there's a very delicate balance between turning a market environment into a shopping centre environment, and going the other way and making it a shabby, stinky mess, because markets can so easily fall into that trap ... yes they're mucky, yes they are messy, yes they are shambolic, they are noisy, they're all those things, but that is what gives them their character.

Victoria does not avoid the pithy and earthy issues. In Chapter 7 Urban policy and smell she considers the implications of the aversion of people to certain odours e.g. in the section 7.3.2 Street urination, vomiting and toilet provision. Neither does she avoid controversial issues e.g. in Chapter 8 Perceptions of synthetic and commercial scenting practices in food.

Clearly this book has a place in the library and should be read by all in the industry. This is a small but not a lightweight book. The 18 pages of meticulously-researched references take the serious student into the primarily academic literature. However, although academically rigorous it is accessibly written and in good old fashioned language 'It is a good read'. It provides a valuable new insight into an important area of our business.





## IN THE NEWS

TONY CURTIS

In this review of the news my main focus is on the effects of aroma materials. There are two, in some ways contrary discussions, continually raging in the media:

- Natural aroma materials can have a highly beneficial therapeutic effect (the aromatherapy platform).
- The perfume pollution platform: aroma materials [almost always described as chemicals] are poisoning our home and work environment.

Dr Ali Green, our ICATS News Letter Editor, has asked me to write a review of how Brexit could affect European and World Aroma Trades. This has been the hot topic this summer in the UK and almost caused a change in the UK Government at the recent UK general election. I am working on it now, as attempting to reach a balanced view is challenging, well almost impossible. You can judge if I do in our next news letter. The two topics above and Brexit have the same problems:

- Phoney facts
- Deliberate distortion
- Lack of critical evaluation of evidence
- Lack of an engaged discussion. Participants on either side of the debate are certain they are 'right' and throw 'fact' bombs at each other. They hear each other but do not listen.

In this news review I express my view of critical engagement in current affairs. The first golden rule is do not trust one source or article. One incandescent issue in current debates is the social media bubble. Our nice social media algorithms can (and do) filter content. I have selected the word 'content' rather than 'information' with care. As the alleged Russian intervention in the USA election appears to show there is the deliberate distribution of disinformation from some biased sources. Here are two starting questions:





- **What is the evidence supporting the view being asserted? From where has the evidence been derived?**
- **Is there missing (in some cases suppression) of evidence? A major concern in the academic scientific press is the potential selective publication of some clinical evidence. Sponsors may have been less enthusiastic about negative indications in research. Some sponsors now give an undertaking of publishing all results to ensure transparency in the evaluative process.**

Now I am retired I can make a professional confession. When I first studied science, over 50 years ago, we could fix anything. Society has started to learn the lesson that we can't with a string of issues: global warming, ozone depletion, acid rain and antibiotic resistance to name but a few! In an earlier ICATS News Letter I reviewed the classic book *Silent Spring* on its 50th anniversary of publication. Arguably this book was the starting point of the green movement. Industry and society must evolve and adapt.

To do so we must be able to try to differentiate between the early warning and the false dawn. A great strength of *Silent Spring* is Rachel Carson's meticulous research unpinning the assertions in this seminal text.

I have become increasingly concerned about people's filtering and the evaluation (or lack of it!) of information, reports and opinions. In this news review I am asking you to take a step back, to reflect not only what is in the news but how we assimilate the evidence and develop an informed insight of controversial and difficult subjects.

I have selected a lead article from the New Scientist: *Something in the Air*, Clare Pain (New Scientist 10th June 2017) as a case study. The subtitle is fair -

*"From scented candles to cleaning products, our lives have become fragranced like never before. What's the effect on our health?"*

The industry view is that we are dedicated to the safe enjoyment of flavours and fragrances. This is going to be an interesting read. However, the opening paragraphs starts with a short discussion on a book *The Case Against Fragrance*. I have a copy on order and will review it in our next ICATS News Letter. OK, this is fair we learn from listening to people with views different or ourselves. However, this is different to suspending judgement or hearing but not listening. This implies some measured critical evaluation of the arguments and the supporting evidence.

One concern is the potential distortion along the news chain. 19th century Telegraph Engineers well understood the problems of distortion of telegraph cables on long transmissions of thousands of miles and re-conditioned the signal. We are familiar with trace pollution concentration up the food chain. A minute trace of pollutant (say DDT) gets concentrated by plankton. When they are eaten the pollutant is further concentrated so when we get to the top predators the level can become toxic. A similar effect can occur with news.

A number of years ago I taught an integrative undergraduate module bringing a number of business threads together. One option was for student groups to act as a consultant to a client and the assessment was a client presentation and report. One group researched the potential of growing essential oils on 'set aside' agricultural land (under the then EEC rules some land was taken out of food production to prevent over production forming wine lakes and butter mountains). Another skills element of the assessment was to produce a press release. We made arrangements with the University Communications Department to release the best student press release to a couple of local media contacts. The whole issue of EEC food subsidy was controversial and the subject tapped into the zeitgeist of the early 1990s. The students duly gained their five minutes of glory on the regional BBC TV evening news. The story was along the lines of University students get to work and learn from the real world not just the textbook and lecture theatre.



The story was picked up and ran in the regional daily newspaper the next day. The following day to this regional press report, the story was reported by one of the major UK national newspapers. However, the nature of the account had changed. Our undergraduates were now 'University Researchers' and from the copy it appeared this had been a major University investigation. We got requests for copies of the report from all around Europe. The fact that this was a modest undergraduate project had been completely lost as the report progressed along the news chain.

The New Scientist is aware of this. Part of the story-line of this article was that researchers had found limonene in some household air samples (you are way ahead of me – no the report did not say if the samples were from the kitchen). Researches had also found that limonene reacts with ozone and part of the degradation products is formaldehyde. Formaldehyde is a known carcinogen. As the New Scientist correctly reports some media over reacted and the message had been twisted into 'Scented candles give you cancer'. The researcher whose work had been taken out of context is quoted '[this] is not what we were saying at all'.

However, the article makes no mention of limonene naturally occurring in citrus fruit. The main source of limonene is in the processing of lemons and oranges to concentrated juice. Clearly the measurements would have gone off scale if someone had been doing something dangerous like adding the zest of a lemon to a dish or

twist of lime into a Plymouth Gin! Being the New Scientist there are careful caveats such as 'One problem with Steinemann's studies is that they are self reported....!'. Some less scientifically-grounded publications can make two and two into two hundred and twenty two.

This leads me into a brief report that ICATS and our sponsors CPL provided authentic ambergris (from old historical samples) to the University of Plymouth's Analytical research group. They have published an improved method (Chromatographic and spectral studies of jetsam and archived ambergris, Steven Roland & Paul Sutton, *Natural Product Research*, February 2017) for determining whether a sample is ambergris or not. We intend to run a feature on advanced analytical work in trace pollutant analysis in Environmental Science studies in a future ICATS News Letter. With vastly improved detection levels you can find almost anything in everything. In the 19th century a food standard might read 'Lead undetectable'. At this time this might have implied something like 1 ppm (the limit of the then current analytical technology). Fast wind to the 21st century with detection limits more in the order of 1 ppb, what does 1 ppb of lead imply?

As we have discussed above, measurements provide evidence. However, it takes critical evaluation to formulate sustainable conclusions. As always with my ICATS News Reports I urge you to read widely. To this I now add the caution: but never suspend your critical judgement.



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**CREATE  
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A decorative graphic at the bottom of the page consisting of various shades of green, including solid green, light green, and white, arranged in an abstract, organic pattern that resembles splatters or a textured surface.