

# Discover the Hidden Depths *of* Konbu



*Konbu* is a sea vegetable, known in the English-speaking world as kelp, which has long formed an intrinsic part of the Japanese diet. What is particularly remarkable about this otherwise unassuming plant is that it is the foodstuff with the highest naturally occurring levels of glutamate, an amino acid that imparts a satisfying savoury taste called *umami*. It is thanks to *konbu* that *umami* was discovered 100 years ago by scientist Kikunae Ikeda, who identified the glutamate in *konbu* as the source of the delicious taste in his *konbu dashi*. *Umami* plays an important role in the flavour of food all around the world, and awareness of the taste is growing steadily outside of Japan. As a result, the flavour enhancing effect of *konbu* is also increasingly being used in cooking internationally and in this unique feature, we ask three of the world's leading chefs about the role it plays in their cuisine.



# Konbu: the perfect enhancement to any cuisine

Chefs around the world are waking up to the power of *konbu*. Once the preserve of Japanese cuisine only, it is now beginning to be used not just in authentic or even fusion Japanese dishes, but also in creations inspired by indigenous cuisines around the world, and the reason for this is undoubtedly the powerful *umami* hit it offers.

Sound of the Sea



## Heston Blumenthal - *British*

# Sounding out the role of konbu

Photography YAYOI

“This dish,” says Heston Blumenthal, “is based around the taste, aroma, and overall experience of the seaside.” The dish in question is called Sound of the Sea and currently features in the tasting menu at Blumenthal’s world-renowned Fat Duck restaurant.

Not only does the creation resemble the sea, with a sandy ‘beach’ laden with an assortment of seaweed being lapped by the savoury foam of an incoming tide, but it is also intended to be enjoyed whilst listening to seaside sounds through the earphones of an i-Pod Shuffle. It is the result of a long period of research into multi-sensory dining experiences carried out by Blumenthal and his team in collaboration with a professor at Oxford University. One early experiment involved asking participants to consume oysters while listening to the sound of the sea. As a result of this painstaking research, says Blumenthal, the conclusion was reached that, “sound can have a huge impact on our perception of flavour.”

The result was Sound of the Sea, which does not contain oysters but consists of edible sand made from tapioca maltodextrin, powdered *konbu* and *miso* oil, seafood in the form of Japanese green abalone and razor & Venus clams, three types of seaweed, baby anchovies, lily root and samphire. The foamy sauce that represents the waves is made from a *konbu* and *wakame* stock infused with clams and oyster juice, while the shellfish are dressed with a classical *ponzu* sauce including fresh *yuzu* & *sudachi* citrus juice, soy sauce, roasted *konbu* and *katsubushi* (dried bonito flakes).

Ingredients were chosen both for their relevance to the seaside experience and to boost *umami* and *konbu* features in various elements of the dish. First it is used in a powdered form in the edible sand, where it produces a big burst of *umami* when combined with the *miso* oil. Next, in the sauce, the *konbu* is steeped in water as it would be for a traditional *ichiban dashi* (one hour at 60°C), but then rather than adding the

traditional *katsubushi*, Blumenthal uses Western, *umami* rich shellfish.

While the sauce deviates somewhat from the traditional Japanese model, the *ponzu* used to make the dressing for the various sea vegetables is in the traditional mould. Blumenthal comments that, “the unique quality that the roasted *konbu* gives the *ponzu* as it marinates is quite interesting. It seems to give it a real depth beyond just an acidic citrus soy sauce.” Overall, he adds, “the role [of *konbu*] is supportive, however the balance would not be able to be struck without its presence.”

This dish has been praised by the patrons of the Fat Duck and Blumenthal is keen to incorporate *konbu* into other dishes, including those that are in other ways not at all Japanese in character. “We are currently working on a classic British fish and seafood dish that we will be using the powdered *konbu* with,” he says. “We will always continue to experiment with these natural food products as they can contribute so much to European cuisine if we just start to take more interest.”

Blumenthal hopes that *konbu* and *konbu dashi* will become more widely used in the UK and elsewhere. He points out that, “at present, *dashi* is only normally used in the context of Japanese cuisine but why can’t we try and add this element to European cuisine, from soups to stocks, to enrich meat jellies and as a base for risottos?” Why not indeed. One thing is certain, however. With perhaps the world’s most exciting chef championing its cause, *konbu* is sure to continue to grow in popularity.

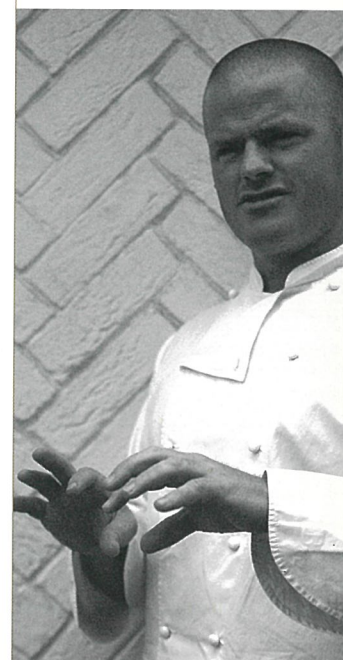
### Heston Blumenthal

Hailed as the most progressive chef of his generation, Heston Blumenthal is renowned for creating dishes that challenge conventions and push the boundaries of culinary innovation. His restaurant, The Fat Duck in Berkshire, UK holds three Michelin stars and was voted best restaurant in the world in 2005.



### Heston Blumenthal's Konbu Philosophy

“We have worked with *konbu* for a while now because of its *umami* properties and it’s ability to give a dish a very powerful burst of *umami* in a concentrated package. I particularly like this product because its presence is often undetectable but its impact is undeniable. *Konbu dashi* itself can be steeped extremely clean so that its use can span into different styles of cooking, even British, without making a dish taste ‘Japanese’. Although these can be inherently Japanese tastes, they are tastes that all human beings have but many just do not recognize. A fifth taste still ignored by millions of people, including supposed experts: this simply is not right.”





## David Zuddas - French

# The chef in search of a konbu fix

Photography Taisuke Yoshida Coordination Junko Takasaki

### David Zuddas' Konbu Philosophy

Zuddas sees *konbu* as a taste and texture 'fixer' that adds *umami* to a dish, thereby drawing out the taste of other ingredients and giving the dish as a whole a more intense, savoury flavour, as well as ensuring a smoother, more satisfying texture. Especially in meat dishes such as this one, the aim is not to highlight the taste or aroma of the *konbu* itself, but to make use of its inherent *umami*. Rather than being a fusion of Japanese and French, it is more accurate to say that a Japanese ingredient is being used to enhance a French dish.

As a self confessed fan of Japan and Japanese cuisine and one of France's most exciting young culinary talents, who better to ask about the role that *konbu dashi* can play in French cuisine than David Zuddas, head chef of the Auberge de la Charme in Burgundy, France?

In 2005, Zuddas traveled to Kyoto to take part in a Japanese Culinary Fellowship programme with leading Japanese chefs and this experience opened his eyes to the possibilities of *konbu*. "I wondered what would happen," he explains, "if I added *konbu*, the quintessential source of *umami* in the Japanese cuisine I love so much, and exploited its synergistic effect to enhance the flavour of *Boeuf Bourguignonne*."

One of Zuddas' signatures is to take local specialities and traditional recipes and add his own ideas and touches to give them a modern interpretation and this dish is an example of that.

The dish is beef fillet '*à la Bourguignonne*', with bone marrow ravioli, bouillon cube, bourguignon spaghetti and new cabbage. As the name suggests, at the heart of the dish lies the traditional French stock bouillon, the quality of which is, according to Zuddas, of paramount importance. To make it, Zuddas begins with a *pot-au-feu* bouillon made according to a traditional recipe. To this he adds fresh *shiitake* mushroom and braises the mixture with care. He then removes the mushroom and adds *konbu*, before simmering the mixture at a constant temperature of 80°C for 30 minutes.

The completed bouillon is then mixed with a small amount of caragenate, a coagulate derived from seaweed, to make the shells for the bone marrow filled ravioli and to make the bouillon cubes. The spaghetti is in fact a mixture of *umami* rich ingredients including bacon, mushrooms and red wine, puréed and firmed with more caragenate. These are served with a beef fillet, cooked rare, and garnished with cabbage

prepared in two ways, and powdered soy sauce. The bouillon is warmed and poured into a pot containing raw onion and *konbu* and served alongside a cup containing more *konbu*, *shiitake* mushroom, *umeboshi* (salt pickled Japanese apricot) and dried meat. It is a truly spectacular dish, but what is the role of the *konbu* in this grand design?

As Zuddas sees it, *konbu dashi* enhances the *umami* taste, as well as the texture of the dish. With regard to the first of these roles, Zuddas feels that, "not only does *konbu* [offer] its own *umami*, but it also supports and fixes the *umami* taste of other ingredients in the same liquid." This idea of *konbu* as a 'taste fixer' is important

to Zuddas, and he returns to the theme again, stating that, "*konbu* has the ability to fix the *umami* of other ingredients... I get a sense that by using *konbu dashi*, it is possible to create a more 'precise' bouillon." On texture, meanwhile, Zuddas says that, "by adding *konbu*, the bouillon acquires a subtly smoother texture and more pleasing mouthfeel, while the flavour is enhanced and

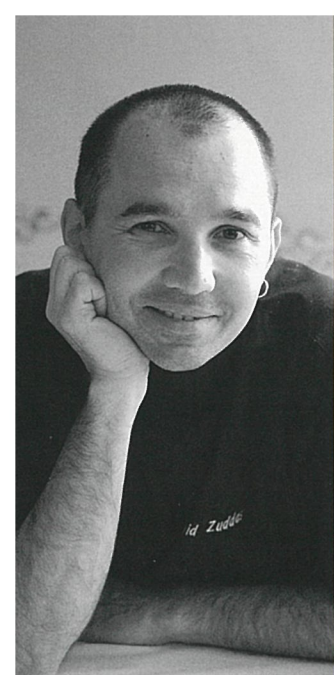
deepened." It is not the *konbu* itself that Zuddas wishes to exploit, but the *umami* contained within it.

Zuddas believes that *konbu* has an important role to play in French cuisine, if it serves as a basis for the *umami* and texture of a dish. This is because although *umami* might not have a specific name in France and people are not aware of it, it certainly exists as a taste in French cuisine. Thus, he says of *konbu dashi* that, "by skillfully incorporating it in traditional French dishes that contain *umami*, such as the bouillon in this dish, the benefits of *konbu dashi* will become better understood."

"By skillfully incorporating it in traditional French dishes the benefits of *konbu dashi* will become better understood."

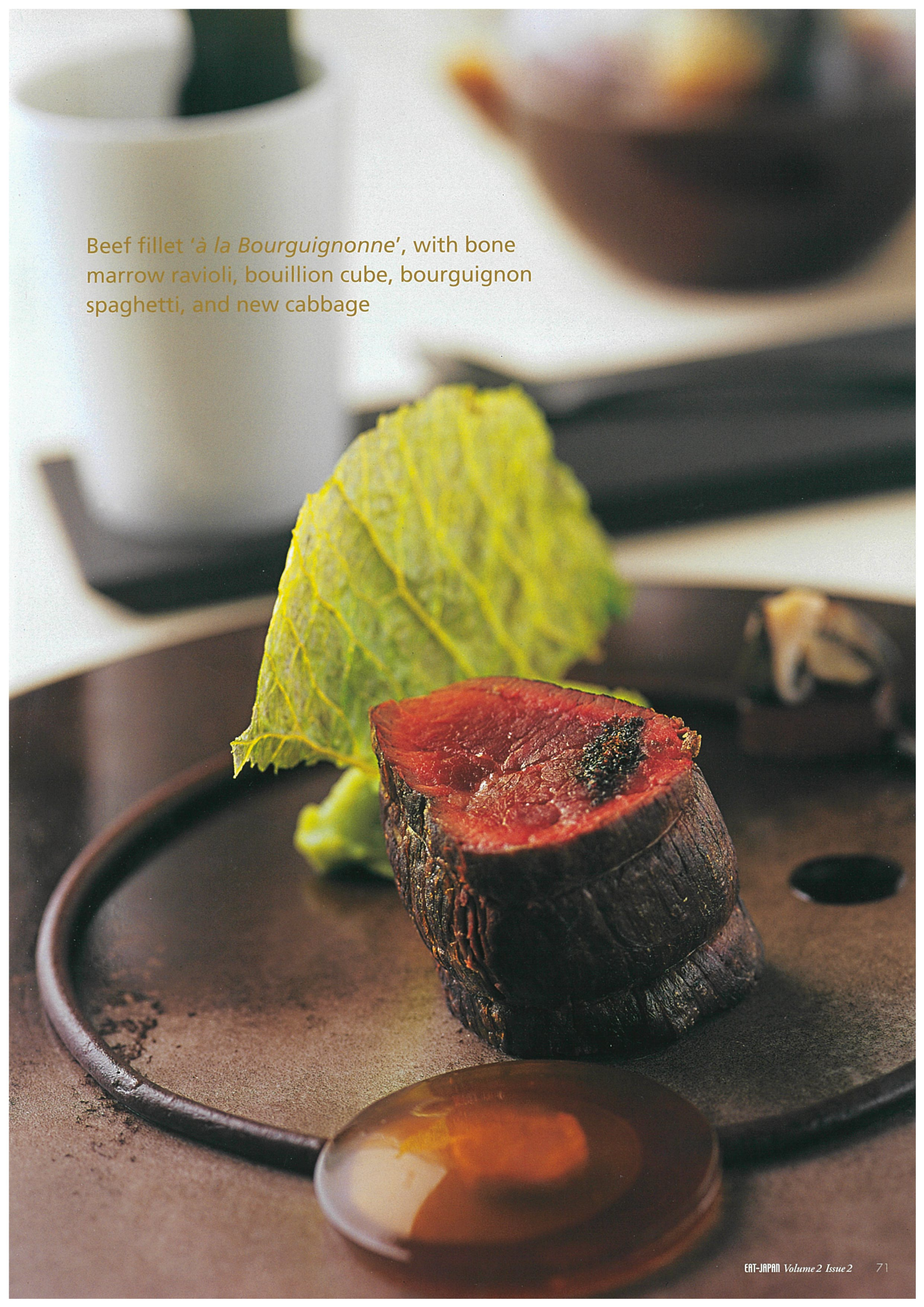
### David Zuddas

Born in 1967, Zuddas studied at Paris's illustrious catering school before gaining experience at various restaurants around France and on the Orient Express. In 1994, he moved to Auberge de la Charme, near Dijon, which he runs with his wife Catherine and is the recipient of a Michelin star.





Beef fillet '*à la Bourguignonne*', with bone marrow ravioli, bouillion cube, bourguignon spaghetti, and new cabbage





*Bavettine with asari clams,  
bamboo shoots and kinome*





## Yasuhiro Sasajima - Italian

# Giving the gift of konbu

Photography Tadashi Saito

Yasuhiro Sasajima is a man on a mission. As a respected Japanese chef specializing in Italian cuisine at his Il Ghiottonne restaurants in Kyoto and Tokyo, he is determined to open the eyes – and taste buds – of Italians and other Europeans to the fact that when they add *konbu dashi* to a dish, “the taste of each element is drawn out, and the *umami* is heightened.”

One such dish is the *bavettine* with *asari* clams, bamboo shoots and *kinome* that Sasajima has created here. A deceptively simple creation of pasta, shellfish and vegetables, this creation actually packs a considerable flavour punch, thanks to its secret ingredient: *konbu dashi*.

Before cooking the dish itself, the bamboo shoots are cooked for twenty minutes with chicken stock, *konbu* and ham trimmings, then left overnight. The *bavettine*, a pasta similar to linguine that holds flavour well, is also cooked not in water, but a *dashi* made by soaking a piece of *konbu* overnight in soft water.

The prepared bamboo shoots are cut into lengths and steamed in a frying pan with garlic flavoured oil, the *asari* (short neck clams) and a little water. Once the shells of the clams have opened, the flesh is removed, the shells discarded and the mixture is added to the pasta boiled in *konbu dashi*. Before serving, the dish is garnished with *kinome*, the young leaves of the *sansho* or Japanese prickly ash, which add a distinctive aromatic fragrance.

Throughout, Sasajima’s choice of ingredients is designed to maximize the *umami* flavour of the dish. “There is a synergistic effect from combining the glutamate of the *konbu*, the cooking liquor from the *asari* (succinic acid) and the inosinate of the ham and this deepens the flavour of the bamboo shoots, which have no natural *umami*, and makes them more delicious.”

Sasajima is keen to point out that he is not simply adding a Japanese ingredient to Italian cuisine for the sake of it, or trying to create a fusion dish. “The

pre-boiling of the bamboo shoots actually involves braising with other ingredients such as ham, so it is an original *dashi*.

The overall aim of this dish, and others in Sasajima’s repertoire, is not to add the taste of the *konbu* itself. “I don’t want to create a dish where the taste of the *konbu* is discernible,” he says. “Because I use it to heighten the flavour of the ingredients in Italian cuisine, and draw out the *umami*, it is not necessary to be aware of the *konbu*. Rather, what is important is that the diner recognizes at some point that something is different, and that the taste is enhanced.”

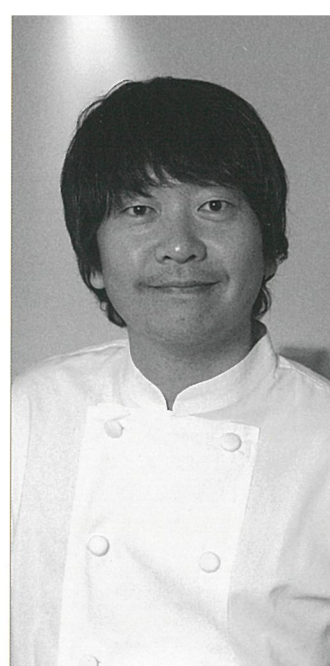
Sasajima was first inspired to use *konbu dashi* in Italian cuisine when he was asked to write a book entitled ‘Italian *Shojin* Recipes’, which focused on making Italian dishes using the ingredients and precepts of the Buddhist inspired, vegetarian *shojin* cuisine that is centered on the ancient city of Kyoto. “This book changed my way of looking at things,” he says. “It was not possible to use everyday Italian *umami* rich foods such as ham and cheese, so there was

no option but to use *konbu*. By using it, however, I was gradually taken by just how effective it was.”

Sasajima is keen to allow Italians to experience for themselves the effect that using *konbu dashi* can have on their cuisine, and an opportunity to do this was afforded him at the Identita Golose Seminar for Italian Chefs held in Milan in January 2007, where he won praise from Italian chefs and journalists for his cooking. “Until now,” he says, “it has simply been a case of Japanese chefs learning from Europe. Now, in this way, as a Japanese chef, I would like to be able to give something back.”

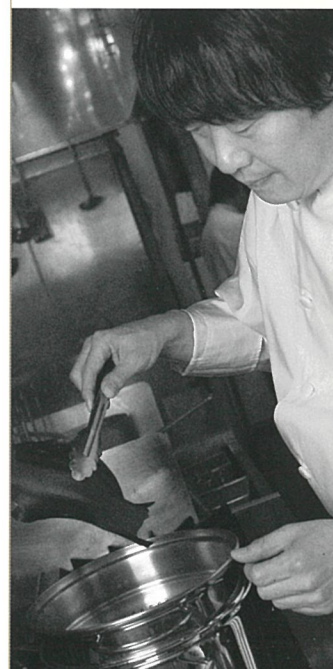
### Yasuhiro Sasajima

Yasuhiro Sasajima is Owner and Chef of Il Ghiottonne restaurant in Kyoto, where he specializes in a unique form of Kyoto Italian cuisine. Such is the restaurant’s success that in 2005 a sister branch was opened in Marunouchi, Tokyo. He also makes regular contributions to television programmes and publications in Japan.



### Yasuhiro Sasajima's Konbu Philosophy

Sasajima is first and foremost a chef of Italian cuisine; his aim is not to create a kind of Italian – Japanese fusion. He uses *konbu* and *konbu dashi* in his cuisine because he wants to harness the *umami* inherent in it to enhance the flavour of other ingredients in the dish. He does not want the taste or aroma of the *konbu* to be apparent in his cooking; rather, he hopes that his diners will detect a subtle yet effective heightening and deepening of the flavour of the overall dish.



“Because I use it to heighten the flavour of the ingredients in Italian cuisine, it is not necessary to be aware of the *konbu*.”



# A taste for umami around the world

*Umami*, first identified in *konbu* stock 100 years ago, is becoming more and more popular globally. With this in mind, the Umami Information Center has been holding seminars in countries around the world to make people aware of the exciting taste in their midst.

In Europe, an event held in Warsaw, Poland in April 2006 explored the ways in which *umami* can make food more palatable, and how this can be put to use to help those with reduced appetite. The country's cuisine is well suited to this, thanks to dishes such as *zurek*, a delicious soup containing fermented rye flour, *bigos* (fermented cabbage), and *pierogi* (pork dumplings).

In Quito, Ecuador in July 2006 it was explained how an extra dimension can be added to the local speciality *cerviche*, seafood marinated in lemon juice, by adding a stock made from *konbu*. The *umami* in the *konbu* neutralizes the bitterness of the lemon juice, resulting in a milder but more complex flavour.

In Sao Paulo, Brazil in November 2006, David Kasabian, a US chef and co-author of the *umami* cookbook 'The Fifth Taste', explained the basics of *umami*, and which kinds of food contain the taste. He was particularly enthusiastic about the traditional Brazilian dish *feijoada*, braised meat and beans, which, he pointed out, "is loaded with *umami*."

On the other side of the world in South-East Asia, meanwhile, two seminars opened the eyes of Vietnamese and Thai chefs to the *umami* in their indigenous cuisines. An event held in Hanoi in October 2006 revealed the *umami* present in the country's many and varied noodle soup dishes. The stocks for these are generally made from *umami* rich ingredients such as beef, chicken, pork, prawn and crab. At an event held in Bangkok in January 2007, meanwhile, the importance of *umami* in Thai food was explored. Thailand is the home of the fermented fish sauce *nam pla*, and the shrimp paste *kapi*, both of which offer a concentrated source of *umami* that can enrich a wide variety of dishes.

Even in Japan, the home of *umami*, people have been rediscovering the importance of the fifth taste, thanks to a seminar held in Tokyo in June 2006 attended by three of Japan's leading chefs, each specializing in a different cuisine.

## Umami Information Center

The Umami Information Center carries out a number of activities to disseminate information about umami around the world, including the creation of websites & publications and the organization of seminars and symposia. Founded in 1982, the UIC was awarded NPO (non-profit organization) status in Japan in April 2007, allowing it to increase the scope of its activities. For further information, visit [www.umamiinfo.com](http://www.umamiinfo.com) (Umami Information Center) and [www.glutamate.org](http://www.glutamate.org) (International Glutamate Information Service)



Clockwise from top: David Kasabian explains *umami* in Brazil; the Vietnamese delicacy *pho-bo* (beef rice noodles); experiencing taste without smell in Brazil, Japanese chef Takashi Tamura shares his views on *umami* with an audience in Tokyo, panel discussion at the Thai event; Mr. Bang Son, eminent Vietnamese writer and panelist at the Hanoi event; Chef Mara Salles at tasting session in Brazil; sea bream consommé created by chef Kiyomi Mikuni for the Tokyo event; Dr. Michael Koziol at the Ecuador event.