

***Within Thierry Marx's Sphere  
...and other culinary inventions  
March 28 to July 21, 2008***

**Press Kit**



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## **Le Laboratoire and the concept of *artscience***

Imagined and founded by the scientist and Franco-American writer David Edwards, Le Laboratoire is a cultural space dedicated to art and design experimentation inspired by an encounter and in collaboration with a leading international scientist.

In fusing artistic and scientific visions, the creative process of artscience redefines itself outside traditional boundaries, no longer belonging solely within one discipline or another. This interdisciplinary approach becomes a catalyst for innovation that Le Laboratoire seeks to cultivate through its annual experiments.

## ***Within Thierry Marx's Sphere ...and other culinary inventions***

In this, the fourth of Le Laboratoire's exhibitions since its opening in October 2007, we present the product of a partnership between Michelin starred chef Thierry Marx and physicist Jérôme Bibette, an innovative fusion of culinary art and colloidal\* science.

### **Live the Experiment!**

To enter "Thierry Marx's Sphere" is to pass the border of gastronomical mysteries and to experience new pleasures, both culinary and visual. This exhibition aims to reinvent the spirit of the chef's table in applying Jérôme Bibette's latest advances in the science of microparticles.

How can one create spheres whose membranes are as thin as a soap bubble—spheres which, when they burst in one's mouth, reveal the entire and unique flavor of a food or a dish? How can one deconstruct a product and then reconstruct it in a contemporary form to release the savor of a recipe in one mouthful?

From this collaboration in artscience, Thierry Marx and Jérôme Bibette have given birth to new sensations brought together in the three recipes created for the exhibition.

The meals are served in bento boxes (traditional Japanese meal-boxes), redesigned with special consideration for these new recipes by Mathieu Bassée et Christophe Dubois, in the context of a workshop with the Ecole Nationale Supérieure de Création Industrielle, led by Laurent Massaloux.

Mathilde de l'Ecotais' visual environment, between beautiful body movements and secrets of composition, narrates the story of an encounter and of an experiment both artistic and scientific.

### **Taste the Future...**

At any time, visitors may go to the "Whif Bar" to taste aerosolized chocolate alongside an espresso. Designed by Harvard students in collaboration with David Edwards, Le Whif is a prototype of a new design to be developed by Le Laboratoire over the course of 2008.

### **...and reconvene at the LaboClub.**

Come discover the new FoodLab and its menu, created by Thierry Marx.

Open to its members, but also to the public (after online registration at: [info@labogroup.com](mailto:info@labogroup.com)) the LaboClub is asking everyone to come together and collaborate to create the menu, which will be offered at the opening of the FoodLab next September.

\* Substances in liquid or gel form which contain, in suspension, particles small enough for the mixture to be homogeneous.

## Biographies



© Mathilde de l'Ecotais

### Thierry Marx

Thierry Marx one of the most creative chefs of his generation. Elected chef of the year by the Gault & Millau Guide in 2006, he is one of the most celebrated defenders of deconstructed cuisine. Head chef at Relais-Château de Cordeillan-Bages since 1996, when he obtained their first Michelin star and followed with a second in 1999, he took direction of the establishment in 2000. His exceptional path has come to represent the archetypical style of a chef who tends to deconstruct his materials.

In 1980, having just received his culinary and confectioner's diplomas, Thierry Marx served a military tour in Lebanon. Marked by this experience, he decided to devote his career to his love of fine cuisine upon his return to France. For Thierry Marx, food is his way to "share and to touch the hearts of others".

He trained in the greatest restaurants: Ledoyen, Robuchon, Taillevent; he received his first Michelin star at Roc en Val in Tours in 1988. Between stays in Sydney, he received another Michelin star for the Cheval Blanc in Nîmes in 1991. Soon after this he ran off to Singapore, and in 1996 he decided to settle in Gironde, where he continues to reside when he's not in Asia. Marx lives in Japan three months of the year, refreshing himself and searching for inspiration during the annual closing of Relais-Château de Cordeillan-Bages.



© Bruno Cogez

### Jérôme Bibette

Jérôme Bibette is founder and director of the Laboratoire Colloïdes et Matériaux Divisés à l'Ecole Supérieure de Physique et Chimie Industrielles of Paris (ESPCI), where he is also a professor. He received his professorial qualifications in chemistry in 1986, finished his doctoral thesis in physics in 1990, and left to do post-doctoral research for Exxon Research labs in the United States until 1992. Upon his return to France, he was given the title of professor at the Université de Bordeaux I,

following which he departed for the Institut Universitaire de France in 1994. In 2000, he received the silver medal from CNRS and created the company ADEMTECH, which makes magnetic colloids for biotechnological purposes; in 2001 he took up his post at the ESPCI. In 2004, Jérôme Bibette and a select few American and English researchers founded the Raindance company in the United States, which develops revolutionary genomic technologies. His research has worldwide impact in the fields of the physics and chemistry of colloids and emulsions. He has approached these complex systems through aspects as varied as synthesis, thermodynamics, hydrodynamics, and instability studies. His work takes place at the meeting point of physics, chemistry, and biotechnology. Jérôme Bibette has written two books (cf. bibliography page 15), a number of articles in international revues, and has registered some thirty patents, of which the majority are currently being utilized in domains varying from industrial transportation to medical diagnostics.

## Live the Experiment!

The first of Le Laboratoire's experiments devoted to the yields of the alliance between a Michelin-starred chef and a physicist, the exhibition "Within Thierry Marx's Sphere" is alchemical in its two ways of penetrating and revealing the same material reality.

Thierry Marx's vision, stimulated by that of Jérôme Bibette, has culminated in the emergence of a unique technology at the borders of gastronomy and material science: *colloidal gastronomy*.

### Thierry Marx's Deconstructed Cuisine

The gastronomic art of Thierry Marx rests upon a singular concept: deconstructed cuisine. His creation is composed in three phases:

- the product's structure (the raw food, untransformed)
- the deconstruction of the raw material
- the reconstruction of the material in a contemporary form as imagined by the chef.

The last step is essential; it is there that Thierry Marx opens the door to new gustatory sensations, what he likes to call "new culinary emotions". On the basis of this concept, Jérôme Bibette and his team have developed a new technique which enables the encapsulation of Marx's savory solutions in spheres the size of salmon eggs; the casing of these spheres is so thin that it is nearly imperceptible to the tongue. This is what enables the explosion of flavor in the taster's mouth—and the finer the sphere's membrane, the more explosive and delicate the sensation.



Thierry Marx in l'ESPCI  
© Bruno Cogez

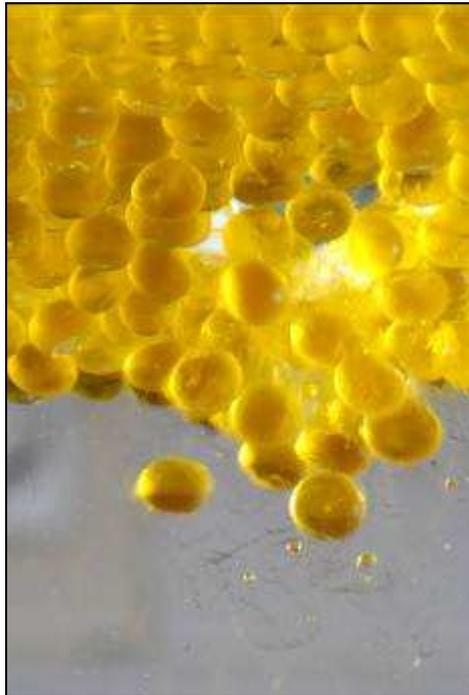
## The Exhibition

Conceived by Artistic Director Caroline Naphegyi, the organization of this exhibition allows us to appreciate (sometimes by sense, sometimes by intellect) the foundations of a "contemporary" cuisine.

The exhibition begins in the tasting area, where visitors can delight in the recipes of Thierry Marx and discover a new approach to daikon radishes, lobster, or a Belle Hélène pear.

Each dish is presented in a bento box (a traditional Japanese meal-box made up of three compartments) which allows one to better understand how the recipe has been conceived; the structure, the deconstruction, and the reconstruction. *"This is a unique experience,"* says Caroline Naphegyi, *"when, for the first time, a great chef will reveal the scientific secrets of his culinary artistry. The exhibition is focused on the bento box—that is what contains the true accomplishment of Thierry Marx and Jérôme Bibette's experiment."*

The contents of the bento box are assembled right before the visitors' eyes and the flavor-bearing spheres will be produced in real-time.



© Bruno Cogez

On the six dining tables, the videos of Mathilde de l'Ecotais reveal the processes of the composition of the dishes. Her gaze sublimely channels science and the culinary arts. Six films play on the tables and the walls of the room, among which is a video on the cutting of an eel, another on the elaboration of the spheres, and one on the bento boxes and their contents.

The second showroom offers a more scientific interpretation of the experiment. The films here present the new technique developed by Jérôme Bibette and his team so as to aid the visitor in better understanding how Thierry Marx was able to further his deconstructed cuisine.

Finally, to taste the future, our Whif Bar offers in collaboration with Nespresso a unique experience: eating by aerosol (in this case chocolate). Harvard students Jonathan Jacques Kamler (physicist), Larissa Zhou (physicist), and Trevor Martin (designer), have developed an idea in collaboration with David Edwards, which takes the form of a chocolate inhaler. The aerosolized chocolate will be unveiled at this exhibition and offered as a delicious accompaniment to a Nespresso coffee.



Trévor, Larissa and Jonathan are developing the Whif.  
Harvard University

## Jérôme Bibette's Spheres: The Technology

Indispensable to the elaboration of the recipes created by Thierry Marx for the exhibition, the secret of the sphere-making technology is here revealed to the general public.

Jérôme Bibette's explication:

"We all know that a faucet that hasn't been completely turned off drips drops of a uniform size at regular intervals.

The technique used to create these spheres was inspired by this phenomenon in a somewhat particular way. From one faucet, we created two, allowing the flow of two different liquids to be adjusted independently of one another.

The spout of this new double-faucet is composed of two coaxial capillary tubes, one of which encircling the other; one fluid flows in the center and the other flows around it, forming a liquid sheath around a central vein. The drop, which beads under the force of gravity at the tip of this capillary device, takes the form of a droplet of fluid coated by a fine layer of another fluid.

Once detached from the spout, the "coated" droplet falls—under the force of its weight—into a fluid surface containing a dissolvable salt able to gel the exterior fluid. The impact is violent and spectacular; the collision greatly distorts the doubled droplet, but it is not substantial enough to permit the interior and exterior layers to mix.

Four steps are clearly visible in these images:

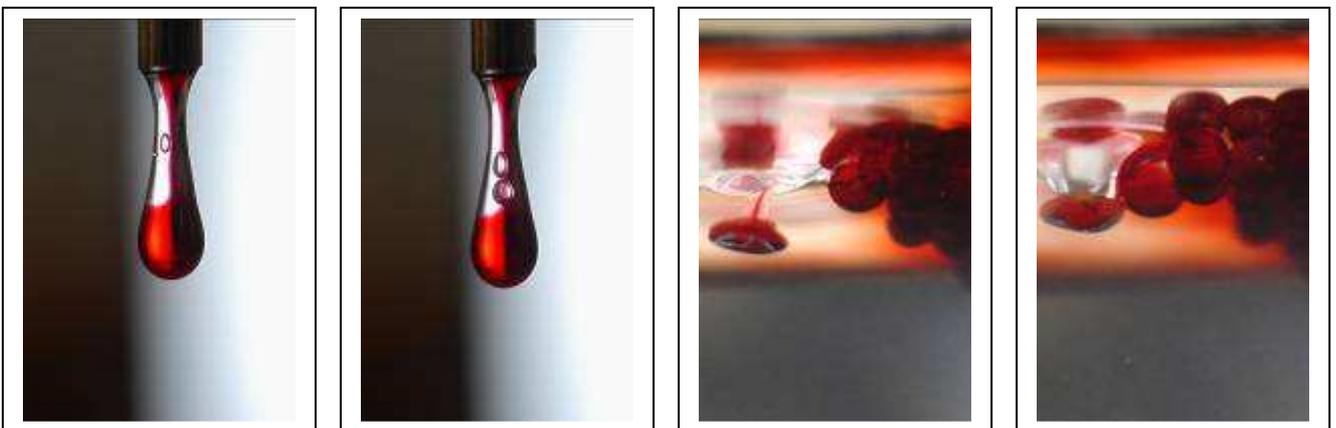
The impact crushes the drop to a wafer-like shape;

The coating fluid gels instantaneously, creating a supple yet resistant membrane;

The droplet's exterior coagulates, sealing it as a discrete unit;

The spherical form is restored little by little, ultimately coming to resemble an egg.

This new technology enables us to encapsulate scores of diverse solutions, be they oil- or water-based, in membranes finer than ever before: the thickness measures just over one hundredth of millimeter."



## Thierry Marx, Jérôme Bibette The Meeting

One deconstructs food and reconstructs dishes of unique and unparalleled flavor, the other conducts research in the deepest depths of colloidal science for biotechnological causes. From this meeting, a new method of creating spheres of condensed flavor has been born.

How did the scientist and the Michelin-starred chef live this experience?



Thierry Marx (on the left) et Jérôme Bibette  
© Bruno Cogez

### ***How did your meeting go?***

**Jérôme Bibette:** We communicated easily. Sure, I had to discover Thierry Marx's universe, understand what he did through his deconstructed cuisine. We exchanged a lot, and I got to taste most of his recipes. Starting from his concept, which consists of separating things and reconstructing them, I asked myself how my science could contribute.

**Thierry Marx:** Jérôme and I don't have the same language; however, we do have many points in common. Both of us invent, both experiment. Our research, even if they're different, take inspiration from a similar method of experimentation. To realize a culinary emotion, I need to understand the structure of a product. In this sense, Jérôme was able to help me.

### ***What was your experiment?***

**Jérôme Bibette:** I oriented myself according to the theme of the transformation of products, the essential principal of Thierry's cooking. How could I help him improve the reconstruction of foodstuffs? In this sense, my work on micro-particles was fundamental. I developed a new technique capable of making eggs, or as Thierry calls them more judiciously, balls, with extremely thin membranes.

***So the innovation, then, is the extreme thinness of the ball casing?***

**Jérôme Bibette:** Exactly. The membrane of the balls is so fine that the objects resemble droplets of dew.

**Thierry Marx:** Imagine the result in your mouth! You can't even feel the ball's casing. It's a true explosion of flavor that bursts like a soap bubble.

**Jérôme Bibette:** My team worked three months on the project. In total, we created balls in 10 different flavors for each one of Thierry's three recipes.

**Thierry Marx:** This new sensation of a taste bursting in one's mouth is an important innovation in the manufacturing of spheres filled with flavor. The surprise effect is astonishing and deserved to be exhibited and offered to the public at Le Laboratoire.

***Was the collaborative work essential to the experimental process?***

**Thierry Marx:** It was fundamental. I would even say that the work and research are the result of a collective brain; it mixed the work of a chef, a scientist, and also of the designer and photographer/filmmaker Mathilde de l'Ecotais. Together, we tell a story which we're presenting to the general public.

**Jérôme Bibette:** In fact, Thierry and I are both experimenters. We are quite akin in how we conceive of the world; we act with the same audacity. The confidence we have in one another has permitted us to develop the project efficiently.

***How do you perceive this presentation to the general public ?***

**Thierry Marx:** It's the first time I've shown my work in this way, outside the walls of a restaurant or a showroom. This goes to show that contemporary cuisine is tending, more and more, to intellectualize and aestheticize itself. Food—I learned from an Asian master chef—looks upon itself, meditates upon itself, eats itself. It's important to explain my approach to those who discover and taste my cooking, because I don't do anything having to do with chance—everything explains itself.

***Does gastronomy, then, have a meaning?***

**Thierry Marx:** The meaning of life, certainly. Things appear and then disappear. The sense of sharing, naturally. I love the idea of touching the hearts of others with my food. There is an artistic sense as well, because gastronomy is, before all else, cerebral. If the food on your plate is beautiful, you want to eat it. Culinary art plays on the senses, obviously. But what I love in addition to that is to create new taste sensations. To reveal innovative substances in one's very mouth.

**Jérôme Bibette:** And it's at that moment, there, that science comes in. The exhibition curated by Le Laboratoire presents this joint venture clearly. It shows this modern scientific experiment applied to culinary invention and interpreted in artistic images.

## Mathilde de l'Ecotais The Image's Testimony

Autodidact, Mathilde de l'Ecotais began her career as a freelance reporter for several magazines and agencies. During this time, she photographed the gangs of Los Angeles as much as she did the quotidian happenings of the Papous in Indonesia. In constantly searching out new experiences, she has explored many and varied regions of the world.

Upon encountering Alain Ducasse in 2001, her photography, her entire artistic path, took a drastic turn. Since then, Mathilde's work has celebrated the culinary art of great chefs, including Thierry Marx, with whom she has collaborated for 3 years.

### " I try to engage a dream. "

Her specialty has changed and yet Mathilde de l'Ecotais continues to consider herself a witness. *"I don't do art photography. I give an interpretation of what I see. My films are the sight by which I see the world around me. I do not transform the materials, I photograph them raw. I engage the dream in a determined framework."*

To do this, the cineaste tastes all the products whose images she captures. *"If the consistency is soft, I want that to be palpable in the photo."* In other terms, Mathilde de l'Ecotais creates gastronomic art. *"My gaze places gastronomy within a different framework, far from conventions."*

### " I bore witness to a 'nano-subtle' experiment "

Mathilde de l'Ecotais' part in Thierry Marx and Jérôme Bibette's experiment was to explore their shared universe to then impart it to others in large numbers. *"I bore witness to a collaboration which reveals the "nano-subtle", which is to say an experiment at the height of technology and gastronomic refinement. Beyond a story, I was witness to an adventure, a true experience."*



© Guillaume Landry

## The Workshop

Design of the bento boxes has been entrusted to students from the Ecole Nationale Supérieure de Création Industrielle.

Under the supervision of designer Laurent Massaloux, ten students participated in the reinterpretation of these traditional Japanese meal-boxes.

### **ENSCI: Unique in It's Field**

Founded in 1982, ENSCI is the only national higher education establishment in France dedicated to design and industrial design with a particularly contemporary vision of the "industry". It is under the authority of the ministries responsible for culture and enterprise.

ENSCI, at first specialized in product design, has widened its domain of studies to other design fields: digital design, textiles, spaces, communications and services. Therefore it is now present in most fields of activities to be found in this post-industrial era at the dawn of the 21st century.

Within the framework of the exhibition presented by Le Laboratoire, the ENSCI students designed the bento box in which the menu imagined by Thierry Marx is served. This realization is the result of a workshop supervised by Laurent Massaloux.

### **Laurent Massaloux**

ENSCI graduate, Laurent Massaloux co-founded RADI DESIGNERS in 1992. RADI DESIGNERS ([radidesigners.com](http://radidesigners.com)) is engaged in a large number of fields of design: industrial products, promotional objects, furniture in limited series, gallery and museum installations, constructions for exhibitions... RADI DESIGNERS likes to juggle the facts of everyday life, such as gestures and object-product-furniture-gadgets typologies. Since 2001, Laurent Massaloux has been producing personal projects ([massaloux.net](http://massaloux.net)) in parallel to his work with RADI DESIGNERS.

## Design at Le Laboratoire

### From Bel-Air to Aerosol Tasting...

The first design from Le Laboratoire, Bel-Air (a new plant-based air-filtration system conceived by Mathieu Lehanneur in 2007), was a wild success. It is currently on exhibition at MOMA in New York for the show "Design and the Elastic Mind", open until May 12, 2008.



© Marc Damage

In the framework of the exhibition "Within the Sphere of Thierry Marx... and other inventions", we now assist in birthing the second of Le Laboratoire's designs: the prototype of an object that lets one taste chocolate in an aerosolized form. The object will be developed with a large designer in the beginning of 2008.

## Thierry Marx's dinner experiments

And if you create the event...

A series of dinner-experiments orchestrated by Thierry Marx may be reserved for Monday or Tuesday evenings



© Bruno Cogez

Other events may be organized around the Thierry Marx/Jérôme Bibette experiment: cocktails or dinners for up to 140 people, press conferences...

For any inquiries regarding the reservation of locations, please contact Karine Scherrer by e-mail at [karine.scherrer@lelaboratoire.org](mailto:karine.scherrer@lelaboratoire.org) or by telephone at 06 07 94 16 00

### More Information

The exhibition will be accompanied by conferences organized at Le Laboratoire, before and after which reservations will be taken.

### Bibliography

Thierry Marx and Mathilde de L'Ecotais, *Easy Marx* (Ed. Minerva, 2007)

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Jérôme Bibette, Véronique Schmitt, Fernando Leal-Calderon, *Emulsion Science: Basic Principles and Applications* (Springer-Verlag Editeur, 2nd edition March 9, 2007)

Jérôme Bibette, Philippe Poulin, Véronique Schmitt, Fernando Leal-Calderon, *Emulsion Science: Basic Principles* (Ed. Springer-Verlag, 1st edition 2000)

David Edwards, *Artscience, Creativity in the Post-Google Generation* (Harvard University Press, 2008)

## **FoodLab, the Thierry Marx menu exclusively at the LaboClub**

The inauguration of the experiment undertaken by Thierry Marx and Jérôme Bibette will also occasion the opening of the FoodLab, with a unique menu created by Thierry Marx, to members of the LaboClub. The FoodLab will be offering its creations daily, between the hours of 12:30 pm and 7:30 pm. The menu will evolve over the course of the year, in tandem with the seasons and culinary innovations by chef Marx. In addition, three times a year, chef Marx will create an experimental dinner (reservation required) for members of the LaboClub.

### **About the LaboClub...**

Veritable network of contacts, the LaboClub is a private circle of artists, scientists, patrons, collectors, creators involved in cultural affairs, and companies concerned with innovation.

The LaboClub puts a privileged space in the heart of Paris at the disposition of its members. Amenities include salons, conference room, multimedia wifi installations, and library.

Members and their guests can benefit from this space by organizing rendezvous, meetings, private and professional events. They can discover the creations of the FoodLab and also reserve these spaces, morning or evening.

The members of the LaboClub are invited to private exhibition previews and other events organized by Le Laboratoire such as conferences, debates, screenings and *artscience* experiments.

For conditions of adhesion and other information, please contact José Sanchez by e-mail at [jose.sanchez@lelaboratoire.org](mailto:jose.sanchez@lelaboratoire.org) or by telephone at +33 (0)1 78 09 49 50

## **The LaboShop**

As a direct extension of the experiments, the LaboShop allows visitors to buy design objects conceived at Le Laboratoire, *artscience* books and other original objects issuing directly from the topics considered at Le Laboratoire. Magazines and newspapers dedicated to innovation will also be available.

## **Partners**

Le Laboratoire would like to thank Bonnet, Paris Première and Raynier Marchetti. Nespresso is partner of the “Whif Bar”.

## Practical Information

### Le Laboratoire

4, rue du Bouloi

F-75001 Paris

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[info@lelaboratoire.org](mailto:info@lelaboratoire.org)

[www.lelaboratoire.org](http://www.lelaboratoire.org)

### Opening Hours

Friday, Saturday, Sunday, Monday from 12 pm to 7 pm

#### Tasting Menus

- coffee + aerosolized chocolate
- lunch (reservation required)
- tasting

**Informations and reservations: 01 78 09 49 50 from monday to Friday**  
[info@lelaboratoire.org](mailto:info@lelaboratoire.org)

### Metro

Louvre Rivoli, line 1 (350 m)

Palais- Royal / Musée du Louvre, lines 1 & 7 (300 m)

### Bus

48,74, 85, 21, 81, 67

### Vélib'

12, rue du Colonel Driant

29, rue J.-J. Rousseau

192, rue Saint- Honoré

### Parking

In front of Le Laboratoire : Parking Vinci

rue Croix des Petits Champs

## Press contacts

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