



PERU

FLAVORS & KNOWLEDGE

FUNDAMENTALS AND METHODS OF PERUVIAN COOKING



FONDO
EDITORIAL

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Fundamentals and Methods of Peruvian Cooking

First Edition, August 2017

This edition
Universidad San Ignacio de Loyola
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www.usil.edu.pe

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ISBN: 978-612-4370-052

Legal Deposit made at Biblioteca Nacional del Peru under No. 2017-10380

Hecho el Depósito Legal en la Biblioteca Nacional del Perú N° 2017-10380

Print run:

Editorial Súper Gráfica E.I.R.L.
Calle Luisa Beausejour 2049 Urb. Chacra Ríos Norte Lima

August 2017

1,000 copies

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“Gastronomy is the new ‘rock and roll’,
and if there is a place where one can
observe this phenomenon, it’s Peru”

Ferran Adrià





Foreword

Over the past 15 years, Peru has experienced a gastronomic boom. Its cuisine not only currently represents a primary source of Peruvian culture and pride but in very little time, it has made its way into the most privileged circles of international gastronomy. Its restaurants are ranked as the best in Latin America and among the top in the world. Peru has been distinguished by World Travel Awards – for five consecutive years – as the best gastronomy and culinary destination on the planet. Moreover, The World's 50 Best Restaurants of 2015 gave out awards to three of Peru's restaurants and nine restaurants were awarded in its regional edition, including first place.

These global distinctions demonstrate the tremendous potential that gastronomy has as a driver of development and as a key player in the process of productive diversification.

Gastronomy generates new business ventures and drives demand for agricultural and hydro-biological products, for the food industry, and for domestic kitchen equipment and utensils. The value chain in the field of gastronomy creates millions of jobs in Peru. A case in point is that the almost 100,000 restaurants that operate in Peru employ close to 400,000 workers. (Valderrama, 2016).

We are witnesses to how rapidly our restaurant chains and franchises expand in Peru and to a number of countries in America, Europe and Asia. Owing to their size and complexity, these brand operations tend to systematize and standardize their processes and procedures across the restaurant (dining room, kitchen, bar and office). Frequently they also lead to the addition of a central kitchen workshop and a produce collection and processing center. The most advanced restaurants operate their own vegetable gardens and research centers.

Moreover, the boom has engendered the appearance of thousands of microbusiness ventures that start out in small stands in a food market, a street cart or in the garage of their homes, and end up running successful restaurant establishments, devoted primarily to regional foods. The intensive domestic migration toward the end of the 20th century has produced this unique dynamic trend in Peruvian gastronomy, providing momentum for the fascinating innovation in its cuisine.

Nonetheless, what we have achieved thus far does not suffice in an increasingly demanding world. In order for us to make the leap forward and face up to growing international competition, we need to conduct research and innovate to increase the level of competitiveness within gastronomy's value chain, and to accomplish this, we need team work - continuous and productive team work - between Academia and Private Enterprise together with a better multi-sector effort on the part of Peru's public sector.

It will be impossible to address the new trends of demand that are more cosmopolitan and more committed to environmental, social and nutritional issues, if no investment is made in new studies of the products that represent the foundation of Peruvian cuisine, such as potatoes, kiwicha, purple corn or rocoto pepper, and other crops cultivated and harvested by small farmers.

More than 2 million field workers – who represent one quarter of the economically active population – produce over 70% of the food consumed by Peruvians (INEI, 2013). Similarly, it is vital that we address the sustainability of the abundant hydro-biological reserves of Peru's ocean territory, threatened by irresponsible fishing and a lack of respect for fishing bans, among other aspects.

One factor worth consideration to sustain growth in Peruvian gastronomy, particularly with entrepreneurial cooks, is making technical education and training available to restaurant personnel. It is within this context that in 1998 we established the USIL School of Culinary Arts, one of the first training centers of its kind. Over the past decade alone approximately 300 culinary arts related schools were created, assembling more than 50 thousand students in universities, institutes and technology education centers. However, not all of them offer the same quality of education.

In addition, one of the weaknesses of culinary education is the limited amount of practice, which contradicts an educational axiom: learn by doing or, in this case, learn by cooking. Another shortcoming is the inadequate amount of knowledge of the origin and chemical properties of the products being used, their nutritional benefits and more importantly, the secrets of some regional cuisines.

In recent years, Universidad San Ignacio de Loyola has created an academic value chain by implementing a multi-disciplinary approach involving different fields of specialization, which identifies individual well-being as its crosscutting theme. Scholars and researchers from the fields of Agro Industry, Food Industry, Nutrition, Gastronomy and more

recently, Medicine, employing a functional approach, are working with the view to achieving the Health and Education objectives contained in Agenda 2030, which seek to eradicate global hunger and poverty.

This is about an ethical commitment to Peruvians and humanity. Herein lies the significance of this work, which for the first time, presents the most comprehensive study of our national culinary experience from a gastronomic and nutritional perspective. This book is the product of the combined efforts of a multi-disciplinary team – made up of chefs and nutritionists- who have developed and documented 17 fundamental principals, 73 methods and 75 recipes from an abundantly palatable Peruvian cuisine, all illustrated with over 1000 photographs. Supplementing this work is a brief study of the evolution of Peruvian cuisine, an analysis of native superfoods that possess high nutritional value and a section on the fundamentals of food safety.

Upon completion of my reading of this book, I am increasingly convinced of the significance that our national cuisine holds as a meaningful expression of our vibrant culture. Moreover, I am certain that this contribution by Universidad San Ignacio de Loyola shall be the beginning of a series of new research projects with innovative approaches that will further refine the fundamentals, methods and recipes to the delight of this generation and many generations to come



Raúl Diez Canseco Terry

Founding President
Universidad
San Ignacio de Loyola

Prologue

In today's world, the perception of gastronomy is broader and more inclusive, associating cooking with health and sustainability. People today are more keenly aware of the importance of a healthy diet and the role that food plays in their well-being. Moreover, this realization requires the uninterrupted improvement of research in the health sciences, of which nutrition and gastronomy form a part.

Public health is a result of the quality and quantity of the food that the population consumes. For this reason, conducting research on the agricultural and hydro-biological products that represent the foundation of regional signature dishes in our national cuisine, on best cooking methods, and on the standardization of preparation processes to further elevate Peruvian gastronomy, represent a constant challenge.

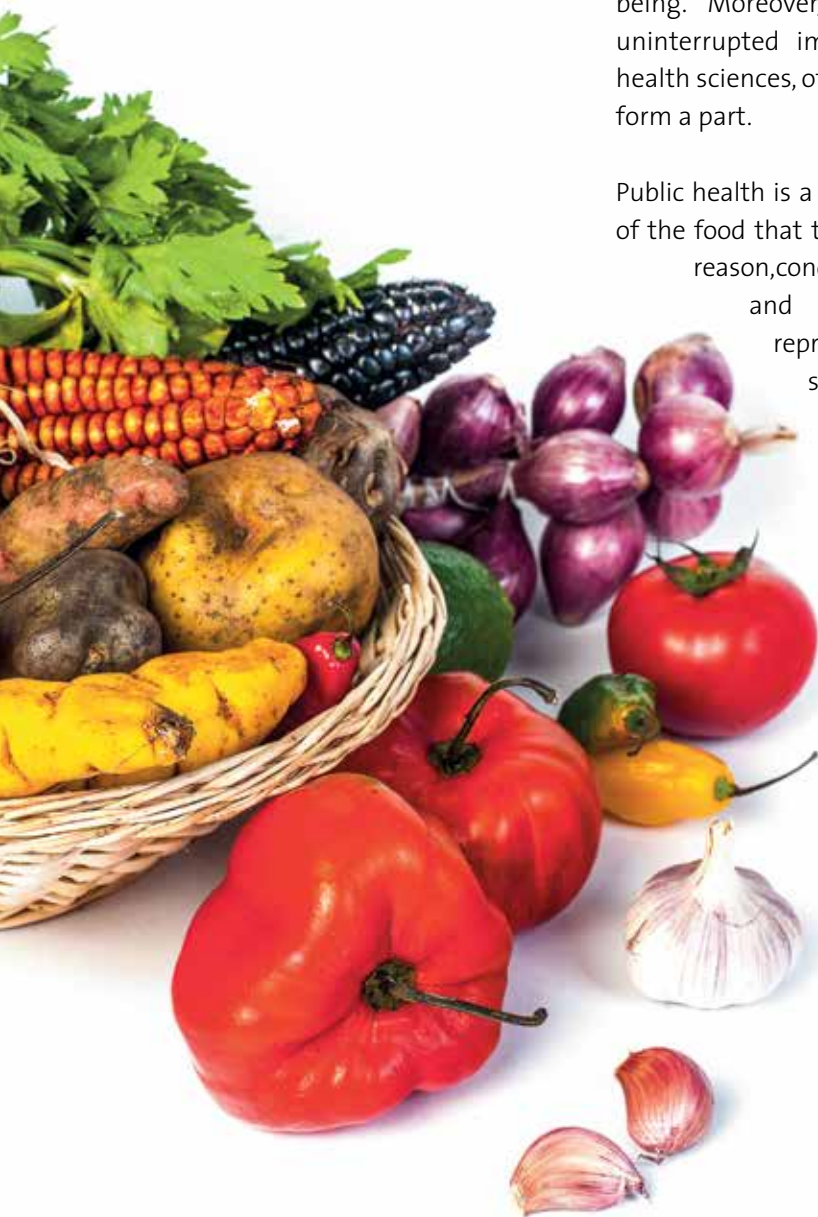
The new trend is ethnic gastronomy; it is the quest for the most authentic culinary experiences, and appreciating the differences in regional food products and cuisine. Put another way, it involves seeking out the most genuine, traditional and

handcrafted culinary experiences with a particular focus on nutrition, sustainability, culture and local tradition.

In this light, Peru is a privileged country. It is a natural pantry based on regional biodiversity and variability. Its different climates and altitudes create fertile zones for a broad diversity of products that run from the millennial potato on through to the most exotic fruit species of the Amazon tropical forest regions.

In each of the different regions, it is possible for tourists –domestic or foreign- to associate a wonderful experience with history, ecology, gastronomy and nutrition. For example in the Sacred Valley of the Incas (Urubamba) we found evidence of the practice of organic carbon-free production using Pre-Hispanic farming methods, where travelers harvest their own food items, including native ingredients such as quinoa, purple corn and varieties of potatoes. In Cabo Blanco (Piura), they are reexamining ancient small-scale fishing (sailing rafts) and sustainable fishing workshops, in addition to eco-friendly economic activities.

Nevertheless, it is incomprehensible that the conservation of our biodiversity - of which we are proud – falls directly on the shoulders of small farmers in the Departments of Cajamarca, Huanuco, Cusco and Huancavelica, and that the children in



those regions happen to be the ones most undernourished. Being poor and undernourished is a double condition that exacerbates exclusion and inequity.

In Peru two factors coexist that make it possible to overcome this critical situation: the recognition of our ethnic gastronomy and increasing interest in healthy eating habits based regional products: grains, fruits and vegetables that are the foundation of a healthy and nutritious diet.

Today the development of national gastronomy abroad requires the processing of our agricultural products and creating international chains of distribution and sale of Peruvian food and products. In so doing, rural farm fields not only enable the purchase of a variety of food products for the global culinary market, they also carry a special social and cultural relevance for our farmers beyond gastronomy and trade. They make it possible for rural communities to become sustainable.


This book reexamines the nutritional contribution of the traditional agricultural superfoods from the different regions and the Peruvian sea in the national gastronomy. In the world of vitamins and minerals, (micronutrients) that our superfoods supply, we need to think beyond minimum daily allowances to prevent illness; we should nourish ourselves with higher micronutrient intake values and live our lives to the fullest.

This new contribution from Universidad San Ignacio Loyola responds to a paradigm that forms part of its DNA: the overall well-being of the individual in body, mind and spirit. Through this book, USIL seeks to promote a healthy, nutritious life style with flavor.




Luciana de la
Fuente de Diez Canseco
Executive President
Universidad San Ignacio de Loyola

Preface



It is my great honor to introduce the work “*Peru. Knowledge and Flavors: Fundamentals and Methods of Peruvian Cooking*”, a very important publication of Universidad San Ignacio de Loyola. It offers a comprehensive and well-versed discussion of Peruvian cooking and is the fruit of the multi-disciplinary work of a qualified team of chefs and nutritionists at this academic institution.


The preparation of a treatise that standardizes its recipes and methods has defined the professionalization of great cuisines. Let’s remember, for example, the work of Luculo in Roman cuisine; the work of Le Viandier, Guillaume Tirel, referred to as Taillevent, the “great chef of the French courts”, or Auguste Escoffier, the MasterChef of great French cuisine. In recent times, professional groups have assumed this task in different countries, as is this case here.




The book, “*Peru. Knowledge & Flavors*” approaches different aspects of Peruvian cuisine with excellent prose and great professionalism. It begins with an analysis of Peru’s historical roots and evolution and highlights how they are based on our megadiversity and on the convergence of culinary and ancient indigenous traditions, which would eventually become enriched by the contributions of culinary ingredients

brought to our shores by migrants from Europe, Africa, China, and Japan. Added to this is the creativity of our modern cooks, now members in the big leagues of international cuisine who have successfully created new flavors that enhance the nation’s gastronomy.

Peru. Knowledge & Flavors contemplates the richness and nutritional value of the country’s pantry, pointing out that historically, the Peruvian Andes were a major domestication center of plants like quinoa, kiwicha, and canihua, potatoes, corn, lima beans, and countless varieties of fruit.



One of the primary contributions of this work is the emphasis it places on nutrition and a healthy diet, and in weighing the contribution of Peruvian food, a perspective that is in alignment with one of APEGA’s current campaigns, which, using the slogan “Eat Well, Eat Healthy, Eat Peruvian”, seeks to promote the consumption of Peruvian flagship products. The discussion also inserts itself into the advocacy of Peruvian superfoods, a topic promoted by the Peruvian Government.



One remarkably novel chapter is the one that refers to the study of chemical processes at work when preparing local dishes that determine the flavor, color, smell, and characteristics of food products. It also suggests ways to adjust our menus to the standards of more healthy meals. Furthermore, a chapter that contributes a great deal toward identifying the DNA of Peruvian cuisine is one that examines its very foundation

(spices, seasonings, sauces). There is also a section on bread making and a recipe book of typical Peruvian dishes and desserts.

Something that stands out as a valuable feature of this publication is the educational manner with which it explains cooking procedures and recipes, including photographs that allow the reader to visualize this process. It thus constitutes an exceptionally practical working tool, and it is without a doubt bound to become a fundamental treatise on Peruvian cuisine. This work will prove to be required reading for chefs, culinary arts students, gastronomers, and homemakers.

Peru. Knowledge and Flavors has also been designed to support an ambitious program proposed by Universidad San Ignacio de Loyola – with the cooperation of Promperu and APEGA – to certify Peruvian restaurants abroad. This involves the implementation of a restaurant assessment and certification system that guarantees that what is being served is authentic Peruvian cuisine. This initiative aims to preserve and strengthen the value of the Peru Trademark and Peruvian Gastronomy as well as to encourage consumption of our nation's finest products.

This proposal is consistent with processes that have been implemented by other countries of the world. One useful reference is the voluntary certification program entitled “Taste of Thai Select” established by the Department of Promotion of the Thailand Ministry of Commerce to certify and promote authentic Thai cuisine around the world.

In addition, Japan's Ministry of Agriculture has started a voluntary program to certify authentic Japanese restaurants. Its stated aim is to protect, preserve and enhance “*washoku*”, – genuine Japanese food – encourage professionals to study to become genuine Japanese chefs, learn the fundamentals of their cuisine and to master all of their culinary methods. The assessment focuses on the ingredients,

culinary arts, seasoning, food presentation and the cultural elements associated with these elements.

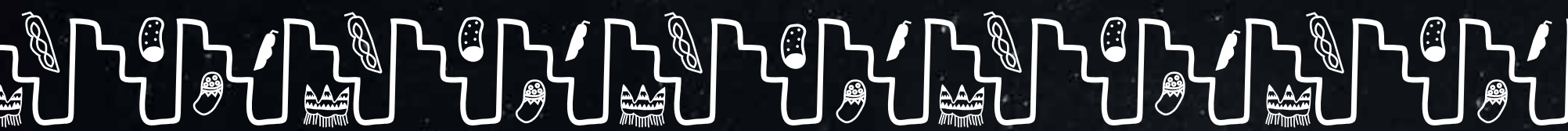
In Italy, there is a similar program called Ospitalità Italiana: Italian Quality Experience, promoted by the Italian Union of Chambers of Commerce and the Italian Government. This plan identifies 10 characteristics that distinguish its restaurants and defines the typical qualitative standard of “Italian hospitality”. It evaluates aspects such as the work experience and competency of chefs in Italian cooking, the cuisine offered (at least 50% of the hundreds of dishes presented on the menu must be traditional Italian recipes), that staff speak the Italian language, dishware and products with the Italian Protected Designation of Origin, such as wines and extra virgin olive oil.

I am certain that this work represents a basic instrument for standardizing local cuisine, and will also be an invaluable tool for all Peruvian restaurants at home and abroad, who are interested in promoting their authentic national cuisine.

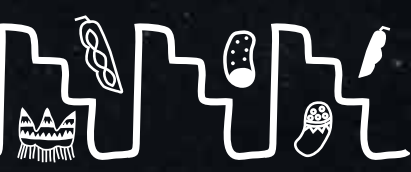


Mariano Valderrama

Gastronome, Manager
APEGA (Peruvian Association of
Gastronomers)



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A close-up photograph of a person's hands holding a large, heavy bunch of brown, knobby tubers, likely Peruvian potatoes. The person is wearing a white long-sleeved shirt and a purple headscarf. The background shows a bright blue sky and green foliage. The text "THE TREASURE OF PERUVIAN CUISINE" is overlaid in white capital letters on a dark rectangular background.

THE TREASURE OF PERUVIAN CUISINE

► Corn – called *sara*, in Quechua – was one of the most important crops in Pre-Hispanic times, as shown in the illustration by Guaman Poma de Ayala

Peru is a country blessed by nature. Peru's coastline is bathed by the vast blue Pacific Ocean where the cold waters of the Humbolt Current flow up from the Antarctic and the warm El Niño Current flows down from equatorial waters. Then, beyond the Andean Mountain Range, is a vast green Amazon tropical forest. Together, these geographic elements make Peru an authentic *churuna wasi* or natural pantry of our planet.

It is one of the 12 countries in the world possessing the greatest mega diversity, with 84 of the Earth's 104 climate zones. Its geography includes different altitudinal floors that enable the existence of multiple microclimates, which in turn allows different species of plant and animal life to thrive.

Throughout its history, Peru has been home to a large variety of cultures, each of them with their own regional gastronomic characteristics, many of which still exist today. The major culinary development and Pre-Hispanic gastronomic culture rested upon an abundant and assorted agricultural production and enormous hydro-biological wealth.

In Peru, prior to the arrival of the Spaniards, the people consumed beans, lima beans, tarwi, peanuts, tomatoes, pumpkin, potatoes – in its multiple varieties- corn, aji peppers (referred to as “ucho” in Inca times and today considered a core ingredient of Peruvian cuisine), rocoto pepper, cacao and a large variety of vegetables.

In addition, at tables they served enormous quantities of fish and shellfish. The inhabitants supplemented their diet with deer meat, duck, guinea pig and domesticated camelids (alpaca and llama). They also enjoyed the

taste and freshness of cherimoyas, pineapples and lucuma (eggfruit), as evidenced by studies of their ceramic remains, artistic expressions of the way of life of our Pre-Hispanic ancestors.

Thus, when the Spaniards arrived, they found a developed gastronomy with a wide assortment of cultivated vegetable products, domesticated animals and wild game, condiments, and cooking and food conservation techniques. The ancient Peruvians prepared chowder soups, they stewed foods such as carapulcra (a seasoned dried potato and pork stew), and they prepared vegetable soups and stews with raw marine-life species, marinated with aji peppers and herbs.

They had ways of processing foods, such as salting fish, toasting corn or shucking corn kernels and drying them to obtain stewed corn. Similarly, they prepared jerky or dried alpaca or llama meat, cured and shredded, and different types of dehydrated potatoes (tubers that are freeze-dried outdoors).

They cooked in clay pots and on occasion, they organized large banquets of meat and vegetables cooked in natural earthen ovens (called pachamancas and huatias). They also drank different beverages made from corn (chicha) and cassava (masato).



TRAVAXA ZARAPAHALLMAIMI^{TA}



entro - capai ray m

entro



▲ After the Conquest, many foreign crops like wheat arrived in Peru, brought over to make bread, an essential food for the Spaniards.



▲ Peru is considered one of the primary crop domestication centers, next to Mesoamerica, Egypt and Mesopotamia. On the following pages: farm fields in the Munaypata rural community, Sacred Valley of the Incas, Cusco.





◀
The Amazon Region is a diverse culinary pantry. Its vast variety provides wild fruits, fish, seasonings, aji peppers and aromatic herbs, that are offered at colorful markets, such as the one in the Belen community in Iquitos.

One interesting note is that “popcorn” was already being consumed in ancient Peru; it was called “piscancalla”. Father Bernabe Cobo wrote about this food in his work “Historia del Nuevo Mundo” (1892) where he tells of what he saw people eat in Tihuanakusuyu, where they prepared their food in the following manner: “They toast a certain type of corn until it suddenly pops open. They called it “piscancalla” and ate it as a snack”. The Amano Museum keeps samples of piscancalla they found in Pre Incan burial sites on the Peruvian coast, in perfect condition.

The meeting of two culinary worlds

The Europeans of the 15th century, who set out to cross the Atlantic Ocean and challenged the myths about sea monsters and infernal abysses, achieved it by seeking a new route to the Indies: the land of cinnamon, cloves, pepper and nutmeg. The Europeans sought out the spices, essential to food preservation and stimulating the senses in the new world that they assumed were the Indies.

So it is that the American fruit species with potent flavors much like that of the spices were given their names. Olaya Sanfuentes (2006) explains that the closest thing to pepper found in the New World was the aji pepper, which from the beginning – according to the chronicles of the discovery – in Spain were called “pepper of the Indies”.

Scholars mention that Colon confused the aji chili pepper with paprika. This is why Spain used the denomination of pepper. While it is unrelated to the oriental pepper that Europeans consumed during the Renaissance, this fruit moved on to form part of the daily diet in the Mediterranean region.

But, beyond substitute spices, the Europeans found a vast amount of agricultural products in America that made up the diet of the native inhabitants, the same ones, which when taken to the Old Continent, were assimilated into their gastronomy and today constitute the foundation of some prominent dishes in a few of its countries.

The Europeans of the 15th century, who set out to cross the Atlantic Ocean and who challenged the myths of sea monsters and infernal abysses, accomplished it by seeking a new route to the Indies: the land of cinnamon, cloves, pepper and nutmeg.

In addition, many products of American origin saved the Europeans from terrible famines. Quinoa and kiwicha are an exception. The Spaniards prohibited the cultivation of these plants because they suspected that the native populations wanted to use these crops to poison them. However, these grains were in fact considered sacred foods to the Incas. After the independence, Peru began to cultivate them again and recently they have become very popular on dinner tables around the world.

Andean-Hispanic fusion cuisine

Spanish colonization brought new culinary uses and customs to Peru’s Viceroyalty era but it simultaneously created an unprecedented cultural phenomenon, the mix of native foods with European culinary knowledge. They incorporated frying, the use of dairy products (in soups) and beef, pork, chicken eggs and new fowl and poultry.

Crops that would become essential to the new cuisine also arrived, such as onion and garlic, which when combined with aji peppers constitute the flavor base of many Peruvian dishes. The citric acidic lime, of Arabic origin, is one of the key ingredients of ceviche – and the grape vine variety – from which pisco is prepared – also arrived in this period.