BaSeFood presentation and concepts emerged from on site surveys of local plant raw materials and related traditional foods and food systems

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On behalf of the representatives of the beneficiaries of the BaSeFood project and their colleagues who conducted this collaborative research

Traditional Food International - TFI-2012
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Scheme of this presentation

✓ introduction to BaSeFood and its activities

✓ introduction to this specific part
  • essential background
  • methods
  • results (highlights and examples)
  • conclusions
✓ introduction to BaSeFood and its activities

BaSeFood
(Sustainable exploitation of bioactive components from the Black Sea area traditional foods)

April 2009-October 2012

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The BaSeFood Consortium

1. Alma Mater Studiorum - Università di Bologna (UNIBO), Italy - Coordinator
2. Institute of Food Research (IFR), United Kingdom
3. Hellenic Health Foundation (HHF), Greece
4. Instituto Nacional de Saúde Doutor Ricardo Jorge (INSA), Portugal
5. Odessa National Academy of Food Technologies (ONAFT), Ukraine
6. Uzhhorod National University (UZHNU), Ukraine
7. Moscow State University of Food Productions (MSUFP), Russian Federation
8. Spread European Safety - European Economic Interest Grouping (SPES – GEIE), Italy
9. Bucharest University of Economics (ASE), Romania
10. Biological Farming Association – Elkana (ELKANA), Georgia
11. Institute for Medical Research (IMR), Serbia
12. University of Food Technologies (UFT), Bulgaria
13. TC Yeditepe University (YEDITEPE), Turkey
Traditional food surveying, documenting, sampling

Primary pool of information

- Description and selection of foods
- Experimental: analysis, bioactivity, technology
- Stakeholders
- Information, dissemination
- Survey, documentation, knowledge

Potential outputs:
- Industrial foods from tradition
- Improvement of t. f. knowledge
- Improved traditional foods (for knowledge, safety...)

Final goals:
- Ex-situ tradition-like foods
- In-situ traditional foods

Coexistence
Activities and reports (in the sequence of this meeting presentations)

- WP 1. Surveying, recording and describing traditional foods.
  - ✓ 1a. On site surveys of raw materials and related foods and food systems
  - ✓ 1b. Documenting specific traditional foods, selection, prioritisation

- WP 2. Nutritional and microbiological characterisation of selected traditional foods.
  - ✓ 2a. Nutritional characterisation
  - ✓ 2b. Microbiological characterisation

- WP 3. Bioactive components, health-promoting properties, absorption and bioactivity of target foods and food components.
  - ✓ WP 4. Technological-chain effects on bioactives in traditional foods, bioactive retention.
  - ✓ WP 5. Chain development and consumer issues in health-promoting traditional foods.
On site surveys of raw materials and related foods and food systems

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Two initial BaSeFood challenges

A. Create opportunities. By generating scientific and technical information usable for stakeholders.
B. Create trust. In consumers, by means of enhanced knowledge and information.

- To analyse and study traditional foods in their context
- To carry out cross-country comparisons of food exploitation ways
Background: previous reference literature and projects

- **EuroFIR**
  - Guidelines for traditional foods description
  - Food indexing
  - Eurofir Basis

- **TRUEFOOD**
  - traditional foods and industry
  - consumers’ analysis
  - stakeholders analysis
  - dissemination
Background: variations in time and space - crop domestication and migrations

Domestication events
- wheat: 10000 years
- sugarbeet: <300 years
- kiwi fruit: ≈60 years
- rocket salad: 20 years, ongoing

Examples of crop migrations
- ancient (6000-1000 y. ago)
- after 1492 (critical event: America “discovery”)
- recent: last century (critical event WW2)
**Background: communication in chain**

**Tradition (Oxford English dictionary):** the transmission of customs or beliefs from generation to generation, or the fact of being passed on in this way

**Traditional foods:**
- in local contexts: experience character (approaching the linguistic definition), although subject to supply constraints
- for urban westerners: tendency to be a credence character, needing third party communication
Going back to sources:
On site surveys of raw materials and related foods and food systems

• document all aspects of knowledge related to local foods.

• investigate facts in natural, rather than in experimental settings;

• retrieve evidence-based information, latent in diffuse knowledge, but
  often absent in official, formal scientific knowledge;
  *(very little folklore, not only obsolete habits, but lot of aware and
  active uses of local resources, for either local and commercial uses)*

• help in generating, besides testing hypotheses;

• allow cross cultural comparison of the present status and
  perspectives of traditional food systems;

• help in programming and tuning possible future experimental
  research
On site surveys of raw materials and related foods and food systems

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Qualitative research

Choosing the contexts and defining the boundaries
- Literature review
- Analysis of previous empirical knowledge
- Convenience, opportunity

Choice of the subjects
- Evidence based / existing experience
- During visits
- Contribution to / integration with food list

Defining checklist of concepts
- Literature review
- Observations
- Preliminary open ended questions
- Key informants

Main body of investigation
- Structured or semi structured in-deep interviews
- Key informants and people indicated by them (systematic non probabilistic sampling)
- Interactive tuning of targets and questions
Selected plant / food groups

• Leafy brassicas (kales)
• “primitive” wheats
• maize, buckwheat
• herbs and greens, and products
• local fruits, and products
• oilseed products
• fermented foods of plant origin

Technology of processing (oils)
- is the product heated before extraction
- type of apparatus (locally assembled, semi industrial, industrial)
- methods of elimination of impurities (filtering, decantation, others)
- oil storage

Technology of processing (products from whole seeds)
- is the product heated before extraction
- type of apparatus (locally assembled, semi industrial, industrial)
- methods of grinding
- processing and storage of tahin
- other products e.g halva
- technology of production

Product destination
- consumed at home
- exchanged with other farmers
- sold to local inhabitants sold to local traders
- sold to wholesalers

The value of cold pressed oilseeds
- specific uses in cooking
- sensory properties
- health promoting properties

Recipes
- describe and record the maximum number of local recipes prepared with the products

Use of by-products
- describe how the by products (cakes) are used
Final reports contain

Introduction and presentation of the plant / food groups

Results

General
• The investigation and growing areas: outline and specification
• The local species / varieties / landraces (when applicable)
• Outlines of growing systems

Product utilisation
• Food uses and recipes
• General food uses
• Traditional recipes
• Evolution recipes
• Modern recipes some times reported as traditional
• Industrial or artisan products

Local perceptions of health promoting values

Synthesis
• Intercultural comparisons
• Perspectives and conclusion
Food description (recipes)

- A prevalence of descriptions from local informants
- not necessarily original, but the approach is different

(in Italy thousands of often very well done regional and local recipe books, and internet information)

10. Minestra di pane (informants: IT16, IT17, IT18)
Location: Toscana region, Arezzo province
Local language: as in Italian
English: literally: bread soup

Ingredients
-------------------

Amounts
The proportion of the two main ingredients, beans and kale leaves, varied a lot, depending on likes and availability. Roughly, it can be considered 1 kg clean kale leaves for 400 g dried beans. Potatoes as well are an important ingredient, often used in the same amounts as beans

Procedure
........

Notes to the recipe
The “zuppa di pane” is one of the staple dishes consumed in rural areas of Tuscany. It represented a way to use the bread left over and already a bit dry, since bread was prepared once a week or once each ten days.
In some rural areas it was a real staple of the diet: it is reported (IT17) that it represented a daily meal, alternated with “Pappa al pomodoro”, another dense soup with bread, and the “farinata”, a gruel made of wheat flour or, in mountain areas, the “polenta” of chestnut flour.
The left over "zuppa di pane" was used again the following days, by putting it again on fire, in a pan or a pot, adding sometimes some oil, and boiled again: from here comes the name “Ribollita” with which this soup is nowadays mainly known.

Variants
Being as staple widespread in almost the whole Tuscany region, this soup has an almost endless number of variants, that are not easily defined. Many of them are simply due to the availability of one or more ingredients: the main group of variants are the following

Variant group 1. The use of different leafy vegetables, besides or in substitution of black kale. Although black kale is the characterising ingredient, rather frequent is the use of curly head cabbage, frequently used traditionally together with kale, that tends to substitute kale in the modern, commercial, preparations. Leafy beets are also used sometimes, but cannot completely replace kale.

Variant group 2. Originally, local beans (e.g. very small beans called Romanini, in the Pratomagno area) were used. Nowadays, commercial Cannellini or Borlotto type beans are used, sometimes also canned, especially in commercial productions.
JUST EXAMPLES of generally well done, well searched food books; many also are in the background

of Romagna
of other places
plant thematic...
Documentation of sources (respondents)

- The information retrieved has been mostly referenced to specific respondents
- The date(s) and place of interview were also registered

Examples

Acronym: IT16
Name: Viviano Venturi
Function / profession: technician, co-manager
Company / employer: Unione dei Comuni del Pratomagno, Radici (firm)
Type of organisation: public / private
City: Loro Ciuffenna (AR)
Address: Azienda Agricola Radici, srl, Via 7 Ponti Ponente, 18 - 52024 Loro Ciuffenna (AR)
Information: Mr. Venturi is an employee of the Union of municipalities of Pratomagno, but also manages, together with his wife, the firm Radici, a small scale firm manufacturing food products from local or anyway low input raw materials, often reproducing traditional recipes. He is also a farmer, growing a substantial part of products, that are also sold fresh at local zero miles markets. He is also the president of the local "Associazione agricoltori custodi (Association of custodian farmers), and the responsible of the Valdarno Slowfood section.

Acronym: IT17
Name: Carolina Galli
Function / profession: house holder
Company / employer: independent
Type of organisation:
City: Loro Ciuffenna (AR)
Address: Loc. Poggio di Loro, Loro Ciuffenna (AR)
Information: Aged 78, Mrs. Galli spent all her life on place, in a family of farmers. She learn from grandmother and mother local traditional recipes

Acronym: IT18cc
On-field surveys

Outline of activities

• joint missions (>50)
• individual partners missions
• relevant number of interviews
• over 150 only in Italy
• over 200 foods (recipes) described
Food preparation: strategies, and recipe recording

Tkhemali, Georgia

Pkhali, Georgia

Churkchela, Georgia

Banosh, Transcarpathia, Ukraine
On site surveys of raw materials and related foods and food systems

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Food strategies and variability

- **Strategy**
  - In most cases: a staple dish, with energetic main ingredient (generally cereal)
  - concept of side dish or dessert basically uncommon
  - addition of what available: fats, meat, eggs, legumes, greens, in various combinations, but also fruits (see variability)

**Examples**

- **energetic component**
  - corn flour
  - left over bread

- a green (kale) *locally available, available in winter*

- = polenta with kale (many variants, see next page)
- = a “bread soup” (many variants)
Variability
- ingredients usually changed in nature and amounts, according to habits and availability

Polenta with kale

- flour must be coarse! no, thin!
- sieved; no, we use it whole!

How much kale?
- must be very green
- depended on what we had
- add also something else (see below)

- the true polenta must be solid, cut in slices
- it is soft, taken with a spoon

+ olive oil or lard or melted bacon....

+ cheese local

+ beans

+ soffritto = a different dish (but where is the border?)

With kale? Depends on the availability and preference.

Same strategy, but sometimes dishes with specific names.

Asking for a precise recipe: why do you insist so much!!?? (latent or explicit answer!)
Defining THE recipe is almost impossible, more a matter of choice, convenience, preference, than an objective output.
"Evolutionary / cultural convergence" of traditional foods

- Strikingly similar foods in distant areas, but yet diverse
- each one felt as typical
- a bottom-up globalisation: local ingredients and ways of doing

- salty pies with greens
  - Erbazzone, Emilia Romagna, Italy
  - A kale filled bread, Trabzon, Turkey

- condensed fruit juices with flour
  - Italian grape "sughi"
  - Georgian mulberry pelamushi

- folded pastries with greens
  - Crescione alle erbe, Cesena, Italy
  - Zhingyal, Erevan, Armenia

- herbal salts
  - Salamoia bolognese, Italy
  - Samardara salt, Bulgaria
  - Svanetian salt, Georgia

and many, many others!
Evolutions

- A recall to crop migrations (very well known and acquired facts)

- **Tomato**, presently a component associated to many Italian dishes
- “medieval” food festivals (quite popular in Italy now) → NO TOMATO
- a sour-sweet fruit, suitable to sauces and to accompany meat.
- in the past similar uses of fruits: sour cherries, apples, plums, cornelian cherry
- replacement: convenience (easy to grow, big fruits, sensorial)
- present Georgian Tkhemali (sauce of local plums)

- **corn**, replaced other grits for gruels (sorghum, millet, emmer wheat, wheat) but also used for in bred for social reasons: was again replaced in better times

- **potatoes**: adopted in Europe where they became staples

- **hot pepper**: could we imagine some Middle east or African cuisine without it?

- **beans**: plenty of “local” types in Italy; 2 PDO, 4 PGI, but little left of cowpea, the “original bean” – (but still from Africa)
Evolutions

- Technologies

- The availability of new "technologies" determine a change of the products

- Example 1: transportation and refrigeration is making dry fruits neglected

- Dried fruits: still very common in the Black sea area markets

- In Italy, besides industrial dry fruits, more a local remake of tradition for niche markets

- Almost forgotten by most people but, when investigating ....
- they were children’s past time chewing gum
- soups - no recent trace in Italy, but registered in Transcarpatia

- a Bustrengo: now a cake, once a main course
- also another example of variability
- name: bustrengo, burlengo, fristigo, pistingo..
- cereal basis: wheat and corn flour; left over bread; rice etc.
- fruits: figs, raisins.. but.. Oh! we used to dry and put in everything: apples, pears, rose hips, cornelian cherries, plums etc.
Evolutions

- Technologies

- A similar situation for fruit concentration: long cooking to concentrate up to a sugar content adequate for preservation

**Pekmez**: fruit molasses still rooted in South Black sea area
- also industrially manufactured

**Saba**: a grape Italian "pekmez", an usual product in the past:
- an energetic food, used as an ingredient, besides as a sweet
- also a matter of differentiated sensory acceptance?: Italian customers not acquainted anymore to the sweet, caramelised taste
- health: a lot of components are lost; what about the ones generated?

**Caucasian fruit leathers**: an example of soft technology... Nothing similar present in Italy

- slightly boil...
- mash...
- spread and dry
- ready!
Evolutions

- Technologies

- Hulled wheat traditional processing
- No machine available to remove glumes without breaking or abrading kernels

Nowadays: machines available that can remove the glumes

Almost 90% market is of pearled grain (traditional product in Garfagnana)
Trends

Evolution of products in dependence on knowledge / technology

• Emmer wheat in Italy. Crushed or pearled grain for soups or gruels
• Little flour produced as by product
• used for pasta "sagne" in limited areas
• pasta of very peculiar characters: friable, prone to overcooking

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• rheological characters not suitable for pasta
• consumers attracted by emmer wheat but also by pasta
• tuning of technologies
• acceptable pasta now produced, for texture and cooking characteristics
• already a consolidated business!
Trends

Transects west / east

- More commercially oriented / self consumption
  (but interesting examples already in course in the Black Sea area countries)
- to complaint with normative standards and rules

Extra-EU Black Sea area processors seem to still prefer internal market: price, opportunities
Trends

Need of a degree of standardisation, from home to commercial exploitation

• heterogeneous raw materials may be OK for home preparation or stability in local context
• e.g. Emmer wheat In PDO of Monteleone: small area, local populations sufficiently homogeneous
• in commercial growing: different environments: variability within population and among environments; necessity of processing.
• few emmer wheat varieties selected from local populations and germplasm sources during last years
Need of a degree of standardisation, from home to commercial exploitation

• Local maize varieties recovered from germplasm banks
• multiplied and selected
• cases of Storo and Spin maize, and some other

• Farmers’ selection of types, within population
• yellow and red types of Ottofile corn in Garfagnana
• some other similar cases

• Example of kales: very heterogeneous local populations in home gardens
• more stable types selected for commercial growing
Need of a degree of standardisation, from home to commercial exploitation

- traditional foods are intrinsically variable
- each restaurant has its own recipe
- each of them is the best

but

manufacturers say that they need a recipe

- indeed this is correct from their point of view
- they need to declare the nutritional composition
- they need to standardise raw material supply and the production process

- but they also claim that consumers want to be guided in final preparation (e.g. with pasta: how to use it, with what?)
- this sounds like a more uncertain statement

- internet is full of all sorts of recipes

- a very misleading source when seeking for traditional foods!
Trends

A trend to work in chain

• In small scale traditional food enterprises, raw materials are rarely commodities.
• Different examples of shortening and simplifying the production chains:
  - Local onions, directly sold with grower’s label.
  - Products from emmer wheat: directly processed by grower or committed to local scale external firms.
  - Palm tree kale traditional soup: local processor also growing the raw material.
  - Palm tree kale packaged: commercial grower also packaging on behalf of supermarket chain.
  - But this had no success: an industrial ribollita. Too different the size and market? Too distant from the traditional food do concept?
Trends

Registration or not?

- registration is new for Black Sea area countries
- 241 PDO or PGI in Italy, with different situations
- e.g. Parmigiano reggiano cheese: world renowned, a voluntary Consortium existing since 1934; DOP: 1996

Basically

- registration OK when applied on rather large productions to protect the name from external competition
- if area too little, OK if the products is not a great success; otherwise a risk that the product is never enough to meet demand
- cases of local producers against registration

Maybe, a tendency towards forms in which producers self certify the product characteristics: direct communication with consumers

The "di Romagna" shallot

- scalogno di Romagna: few hectares; too little; PGI since 1997
- nearby producers are out, or producers that are in prefer to stay out!

Outside IGP "di Romagna" is not allowed: but it is still Romagna!
Local perceptions of traditional food value

- in local context, traditional foods still perceived through direct experience
- therefore, basically trusted

- sometimes, a fatalism of the fact that they are going to disappear
- often detected in Black Sea area countries: an astonishment for interest

- in some cases, traditional foods are associated to negative aspects of poverty, malnutrition, sensory defects
- but most times feelings connected to individual sensorial preferences
Local perceptions of healthy properties

- in many cases not the main perception
- generally limited to cases in which the effects can be directly perceived

Examples

- Cornelian cherry fruit are OK against haemorrhoids
- Emmer wheat regulates gut function
- Never registered local knowledge about not directly perceivable effects: e.g. cancer prevention
CONCLUDING REMARKS

- In this investigations, traditional foods mainly corresponded to rather local foods
- local perceptions are mostly by experience, little by communicated characters
- this seemed a motivation for acceptance and trust
- local foods and raw materials and intrinsically diverse
- diversity has been a matter of stability and use of resources;
- now it is a matter of acquired individual habits
- local foods are evolving in relation to social and technological changes
- local systems are producing a number of interesting cases of exploitation
- soft and local scale technologies already diffusely applied
- apparent transect from west to east: examples to be studied and transmitted
- cultural convergences of foods and raw material uses
- raw material intrinsic or immaterial traits can:
  - promote developments of chain production
  - affect modern consumers orientation to adopt traditional foods or new food from traditional raw materials
CONCLUDING REMARKS

Possible hypotheses / lines of action

- Stimulate the appreciation of diversity
- Enhance consumers awareness and capability of self judgement
- Accept and stimulate co-existence of different scale exploitation, with appropriate tools:
  - Implement local scale technologies, knowledge transfer
  - Allow wide range of normative approaches within some milestones (social equity, safety, hygiene)
- Still lot to be done
  - Priority to further documentation of traditional food systems and initiatives (a lot still to know, or is locally known only)
  - Improve communication in chain
  - Modify perspectives: now prevailing top down approach, and emphasis on communicable characters
  - Move partially to a bottom up approach, awareness and re-evaluation of experience characters
CONCLUDING REMARKS

- Although some of them are identified as "national", traditional foods seem to have hardly a “national” dimension, at least with reference to present national states

- They are either local, with respect to the feeling of people, even if at different scale......

- ... or trans-national, as a result of cultural and environmental constraints that determined similar food uses in bordering but also in very distant places

- A case of possible bottom-up globalisation

This was the inspiration for: