

## **Cooperative for Health, Food Security & Environment Against the Credit Crunch**

*An institution thriving in the midst of the credit crunch could show us how to exit the food, fuel, and financial crisis*

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### **Un Punto Macrobiotico and Mario Pianesi**

One institution that's thriving in the midst of the credit crunch is Un Punto Macrobiotico (UPM), a cooperative in Italy that promotes health, food security and the environment through the macrobiotic diet. Could it show us the way out of the food, fuel and financial crisis?

UPM was founded in 1980 by autodidact Mario Pianesi, who taught himself everything there is to know about health and nutrition, guided and re-interpreted according to the ancient Chinese theories of yin and yang and the five transformations (see [1] [Transparent Label An Alternative to Organic Certification](#), *SiS* 37), having taken his inspiration from Georges Ohsawa's *Zen Macrobiotics* [2]. Ohsawa (1893-1966) was reputed to have cured himself of tuberculosis using what he knew of the ancient yin-yang theory.

The UPM movement has swept through Italy from its headquarters in Tolentino of the Marche region in the centre of the Italian peninsula, simply through word of mouth and some brilliant organisational skills, no doubt. UPM does not have a website, and *never* advertises. Pianesi's macrobiotic teachings are based on the traditional Chinese theories, which he has extended, elaborated, and some would say, transformed; applying them not just to food and nutrition but also to agriculture and ecology, and beyond, to the origin of the universe.

UPM has formally split with the US macrobiotic movement, as among other things, Pianesi does not support food supplements like his US counterpart, which makes lots of money selling them. Pianesi believes there is no substitute for good food, and I am inclined to agree. The "Ma-Pi" diets [3], which Pianesi has formulated for healing and health-promotion, are firmly based on "the positive sides of traditional Mediterranean cuisine."

UPM now has 120 centres dotted all over Italy (including Sicily). The centres are typically a restaurant and shop, or a factory. A few of them are also distribution centres which receive and package goods from the regions, and deliver to the shops and restaurants once a week. There are 200 000 members who pay €5.00 a year for the privilege of eating in the very affordable restaurants, attend lectures and conferences free, and buy from UPM shops that sell natural foods, detergents, cosmetics, clothing, furniture and even house paints and artists' paints.



*Typical UPM Shop*

### **Healing diseases with macrobiotic diets**

The Ma-Pi diets have helped hundreds of thousands in Italy recover from serious, often terminal illnesses, and that has contributed primarily to UPM's success. The organisation is essentially run by people who have experienced remarkable cures, and are therefore firmly committed to the movement. Pianesi and his wife Loredana now spend much of their time leading conferences and workshops to which scientists from national academies around the world are invited. Funding for these come entirely from the UPM membership; they believe in spending as much as possible to promote the movement, losing nothing to taxation. One big project involves the treatment of diabetes through macrobiotic diet in different countries, and there have been notable successes so far in Thailand and especially in Cuba, where thousands have been cured of diabetes and other diseases. Trials are planned in Tunisia, Mongolia, China, and Pakistan.

The full clinical evaluation of 25 adults with type 2 diabetes placed on the macrobiotic diet for 6 months in the Finlay Institute of Havana, Cuba, was described in a scientific paper published in 2007 [4]. The improvements were remarkable. Blood glucose fell from an average of 11.7 mM to 5.5 mM, along with a significant reduction in body weight (Body Mass Index shrank from 28.0 to 24.1), decrease in blood cholesterol and triglycerides, drop in blood pressure, and so on. Eighty-eight percent of the patients were able to stop taking insulin and other drug treatments for reducing blood glucose.

The Chinese principles of yin and yang translates most concretely to the pH of food, yin is acid and yang is basic, and they determine the pH of the blood, which could account for much of what goes wrong. Though a lot more dedicated research is needed in this important area of how biological water interacts with inorganic ions [5] (see [Water's Effortless Action at a Distance](#), and other articles in the series, *SiS* 32), the electronegative and electropositive series having obvious resonances with the concepts of yin and yang.

### **Seeing Italy in a week in a methane-driven Audi**

My main interest is in the UPM organisation and the farming system that Pianesi has devised for growing macrobiotic food, the 'Pianesian polyculture' (introduced to countries carrying out the diabetes trials), which have obvious applications in the integrated food and energy carbon sequestering Dream Farms that ISIS is currently promoting around the world (see final chapters in [6] ([Food Futures Now: \\*Organic \\*Sustainable \\*Fossil Fuel Free](#), ISIS publication).

So, I was very grateful when UPM agreed to organise a visit for me in July 2008, even though it meant traversing the whole length of the Italian peninsular (Milan at the top of the boot to Calabria the toe) in a week, followed by a week workshop in Calabria with Mario and Loredana, and whichever scientists from national academies happen to be dropping in (in the course of that week, I met scientists from Tunisia, Algeria and Pakistan, all very keen on Dream Farm 2).

I was transported in a 17 year old 2000 cc Audi by the head of the UPM secretariat, Giovanni Bargnesi, a wonderful companion who drives like a typical Italian man: fast and furious, and with sudden change of lanes, a bit hair-raising at times. But amazingly, there was not a single accident on the road during the entire trip, despite frequent road works and congestion. Bargnesi did not seem to need water either (this, like everything else that is good, he attributes to the miraculous macrobiotic diet), and would happily drive for hours at a stretch without stopping. The car is not air-conditioned, and it was sunshine and clear skies everyday, with temperatures in the high 30s pushing 40 during the day.

I made a major discovery while on the road. The car could run on either natural gas (methane) or petrol, and has a gas cylinder in the boot for methane and the petrol tank in the usual place. By simply pushing a button next to the steering wheel, Bargnesi demonstrated how he could switch from one to the other smoothly and imperceptibly while on the road. It is a small modification that cost him €700. What's more, filling stations for methane are every 25 km, except on the motorways where they don't seem to be available. Even the old monster of a car did about 30 km per cubic metre of methane. A cubic metre of methane contains 40 MJ of energy, about 20 percent more than a litre of petrol, but methane runs the engine more efficiently. Methane was selling at about €0.95 per cubic metre, and petrol at €1.50 or more a litre. The cylinder capacity was 11 cubic metres, so the range just over 300 km; and it cost only 35 percent as much on methane as on petrol. No wonder people were all filling up on methane rather than diesel or petrol. Italy is predisposed to take advantage of biogas methane, much more so than the UK, though anaerobic digestion is still uncommon in Italy.

### **Natural gourmet foods, furniture, clothes, paints etc.**

In the course of the week, I was treated to macrobiotic gourmet food, mainly Ma-Pi diets 4 and 5 which are *not* vegetarian, as opposed to Ma-Pi 1 and 2, which are, while Ma-Pi 3 includes fish. And every meal was in a different restaurant if not a different town or city. Not surprisingly, the macrobiotic cuisine grew on me, as it continued into the second week. UPM take their culinary art very seriously. Every initiate starts as an apprentice in the kitchen. I was generously feted everywhere as 'friend of Mario' on fish of all kinds (including those freshly caught in the sea in Calabria), scallops, fresh water shrimps and lobsters, squid, cuttlefish. I had goose, pigeon, and even rabbit, though I declined the rabbit leg offered. Beer or wine was served with almost every meal, though dilute green tea is the healthy option. The beer was excellent. Surprisingly, I did not miss coffee, tomato, aubergine, mushrooms, milk, cheese, or eggs, all hallmark Italian foods on the macrobiotic forbidden list. Miso (fermented soybean and barley or rice) substitutes well for cheese;

toasted sesame with sea salt, or soy sauce, is a sure winner; the cold pressed macrobiotic virgin olive oil is the best I have ever tasted; and the rice ice-creams made with various fresh fruits are mouth-wateringly delicious. I even acquired a taste for toasted barley water (coffee substitute), and just cannot get enough of almond milk on the rare occasions it was served in the morning.



*A lunch plate*



*A feast to end all feasts*

The main emphasis is on *whole* cereals, so polished rice and potatoes are out. Brown rice is considered the most healing food, though white *milled* (not polished) rice is frequently served. Millet and barley are favourites too. The only cereal excluded is maize. The cereals are traditional varieties rather than the commercial ones. Sugars, if used, are complex sugars such as malt (from rice and barley) and unrefined cane.

I was quite sceptical of macrobiotic food before I went on the trip, but came back much more receptive and appreciative, if not entirely convinced. I made a mental note that if I became ill, I would definitely go macrobiotic rather than take drugs or go into hospital.

### **Working for oneself and for the movement simultaneously**

The way it works is that all the businesses, restaurants, shops, factories, etc. are under franchise to UPM, but not owned by UPM. Everyone seems so contented and enthusiastic it seemed unreal, especially at first. I only saw one single person who was overweight in all of the UPM places I visited. They are typically absurdly slim (as well as mostly young), even though they eat huge portions of whole cereals and vegetables. Apparently, they have no fat, it is all muscle. As proof of their prowess, they won their yearly vegetarians *versus* carnivore football match in Calabria with a decisive score of 14 to 11.

Apart from the farms (described below), I was taken to visit bakeries where they make their own bread and cookies (flour from traditional wheat varieties) with wood-burning ovens, and 'food factories' where simple food processing and packing are done (with small machinery also suited to on-farm use, and some indeed used on-farm. The machine making puffed brown rice cakes was particularly interesting as it is very small and easy to operate, and takes about a second to make one rice-cake starting from a tiny handful of uncooked brown rice dropped automatically into the cake mould.



*The rice cake machine*

In a furniture showroom and workshop, I saw natural wood stains and preservatives, for example, linseed with orange peel is excellent as wood preservative, and natural rubber used for foam mattresses and soles of shoes (impregnated into woven natural straw), organic cotton and other natural fibres such as hemp for clothing, bags, as well as filling for mattresses. Natural non-chemical treated leather is made into shoes and bags.

Particularly interesting was the factory of natural paints, all made without chemicals from vegetable dyes, minerals, expired milk, eggs, etc. Roberto Mosco, the young man who runs and owns the factory, has taken over after his father died of cancer making chemical paints, and at Pianesi's suggestion, began making natural paints. They are innovating all the time, making new composites out of eggs and gypsum that can replace bathroom tiles, for example. He gave me some natural pastels for artists, a range that they are just creating, and some water colours, which were sadly confiscated at the Rome airport checkpoint on my way back to London, and tossed into a bin.



*Natural paints factory and workshop*

### **UPM farms and Pianesian polyculture**

The UPM farms are typically ordinary farms on contract to grow food the way Pianesi prescribes. It is a no-till or minimum-till ‘polyculture’ of diverse crops either in rotation or mixed together, based on recovering traditional varieties, and letting beneficial weeds grow with the crops as far as possible. Many of the weeds are edible, and can form a harvest along with, or after the main crop.

Pianesi suggests first looking at the weeds in the field for clues as to which crops will grow best there, and planting trees in the fields 5 m apart (presumably to allow small tractors and harvesters that many of the farmers use) to help provide shade and conserve water. After harvesting, the residues are left in the field, which are not ploughed, and the seeds for the next crop, saved from the previous, are sowed by hand or with machines, but with minimum disturbance to the soil. This makes for minimum effort; so much so that farmers now have plenty of free time for other pleasurable things. The crops are either rain fed, or with minimum irrigation, and of course, no chemicals are used.

All the farmers I met were keenly interested and engaged in their trade, and some are enthusiastic experimenters, encouraged by Pianesi. And of course, like Pianesi, they are all dead set against GM crops.

The farms I visited were as follows.

#### ***Farm of Conte Radice Fossati*** 10-11 July

After I arrived at Milan airport, Bargnesi drove me by car to a farmhouse near Mezzana Bigli, about one and a half hours away, owned by Conte Radice Fossati, who also owns 1 200 ha around Milan, the major rice growing region in Italy.

My room was beautifully furnished with period pieces and remained remarkably cool even though it was stifling hot outside, apparently due to its double-wall construction within which water is trapped to cool the building by evaporation. It seems we have much to learn from the ancient builders.

Fossati is the biggest industrial rice-grower in Europe. His accountant, Guiseppa Mirabelli had been ill with hepatitis B since 1971, and 25 years of conventional drugs had

failed to cure him, only made him worse. Fortunately, he met Pianesi in 1996, and became better within months of starting his macrobiotic diet.

At around the same time, Fossati's farmers were having less and less success with chemical farming and some of them switched to Pianesi's method, which brought the yields back up within a couple of years. So Fossati finally decided to devote 20 ha to macrobiotic farming in 2007 of a traditional rice variety; the result was so good that in 2008, he switched another 30 ha of wheat to macrobiotic cultivation, again, of a traditional variety.

Fossati was not yet ready to give up chemical farming wholesale, but if he does, then it would really seal the fate of industrial agriculture, and with it, GMOs in Italy, and possibly the rest of Europe.

Other factors are coming into play, chief among which, Italy is turning into desert under the severe drought of recent years. The mighty Po River, which has fed this rice-growing region for centuries, has now dried to a trickle, while unsustainable practices continue.



*Rivers running dry in Italy*

On our way to visit the second farm the next day, I saw a tractor-like vehicle parked near a maize field with no one in it but a noisy engine running. It turned out to be operating a pump and delivering copious ground water into the maize field. More than two hours later, when we returned from the farm, the pump was still going with no one in the tractor, and the maize field was about a foot deep in water.



*Tractor pumping water to flood a maize field*

Throughout the region, automatic sprinklers can be seen spraying pumped water in fields early in the morning and late in the evening. Pianesi later showed me many photographs of dust clouds over the fields taken in March 2008.

The rivers and tributaries are drying up also in the Marche region where the same unsustainable wastage of water is perpetrated by industrial monoculture farms. Climate experts are forecasting droughts for the whole of Southern Europe as global warming continues, turning the entire area into semi-desert [7].

***Farm of Guiseppe Oglio*** 11 July

Guiseppe Oglio, a handsome 39 year-old bachelor, has taken over his parents' 26 ha farm to run organically since 1990, and began working with the UPM in 2001. One major change since working with the UPM is that he is "very difficult" to find. Despite carrying out many experiments in his fields - which he was happy to show us at length - Oglio now has plenty of free time to visit his girlfriend in the city.





*Biodiverse fields where weeds and crops co-exist for mutual benefit*

Among the many experiments Oglio showed us were the following

- Rice fields planted with traditional varieties without weeding, where the worst weeds were kept under control, while other beneficial/harmless weeds also grew up, which is very good for wild life.
- Millet field sown by hand and not irrigated was doing much better than one that was irrigated and sown at the same time
- Barley can be grown with a wild green that is eaten as vegetable, without losing yield. Oglio seemed genuinely delighted that such marginal, sandy soils could yield 2 tonnes per ha, and attributes that to the Pianesian method
- Field covered by crop residues, which has not been cultivated or watered for several years, nevertheless sprouted self-seeding leaf lettuce. The seeds from these plants, according to Pianesi, are best suited for growing on the same plot of land.

Oglio has his own rice-threshing and milling machine, and apart from selling his produce to UPM, also sells direct to other customers.

Oglio does almost all the work on the farm, with some help from his aged uncle.

There were some farm animals kept in less than hygienic conditions, not for UPM, but mainly to indulge his uncle, probably not up to UK animal welfare standards. It is clear that the farm could benefit with a small biogas digester to improve animal hygiene at the very least.

#### ***Farm of Ivano Mazziere*** 14 July

This is a small 12 ha farm in Appignano on a hill in the Marche region, which has only started to work with UPM a year ago. Ivano uses drip feeding for his crops. His pride and joy appears to be mixed vegetables fields on four of the five ha (one ha left for green manure), yielding 50 tonnes of harvest each year. He delivers fresh vegetables to nearby UPM restaurants and shops four times a week.

Ivano and his wife run the farm and he uses light machinery, some he has built himself, such as a lightweight seed planter and a weeder, which altogether consumes about 1 000 litres of diesel a year. He also saves and catalogues seeds.



*Polyculture drip-fed vegetable plot*

#### ***Farm of Michele Carpineti*** 14 July

This is a 15 ha plus 6 ha farm in Sambucheto of the Marche region. The farmer started to work with UPM 8 years ago when his parents failed to keep the farm going due to illnesses from pesticides. Now the farm is obviously thriving, producing a diversity of grains and vegetables.

There are also many animals on the farm, mostly kept as pets, especially a free range pig that seems to like the company of the horses. But two bulls were being “fattened” and kept mostly shut up in cramped housing in less than desirable conditions. Animal manure piled up in the corner of a field. This farm too, could benefit from a biogas digester.

Unlike Mazziere’s farm, this farm is on completely flat land. And Carpineti has started planting trees as recommended by Pianesi, first in hedgerows around the fields and then within the fields. He also drip-feeds his crops and pumps water sparingly from underground. The underground housing for the pump doubles up as a convenient storage place for his vegetables.

Other signs of Pianesian polyculture are evident, such as a diversity of weeds growing among the crops. I have never seen such an interesting collection of weeds anywhere else apart from those I saw on UPM farms.

Carpineti is helped by his father and two young daughters, and uses 3 000 litres of diesel a year for machinery and the water pump. There is a bakery on the farm to take advantage of freshly ground flour.

Carpineti too, delivers fresh vegetables to nearby UPM centres, as well as a hospital that has started serving macrobiotic food to patients.



*Family harvest*

***Farm of Ivan Bruno 15 July***

This is an unusual farm in the Campania region in the south of Italy, which consists mainly of natural forests (some 60 ha) in the hills that the family has acquired. After initial unsustainable harvesting of forest trees, the youngest son in the family was inspired by Pianesi to do sustainable agriculture, leaving most of the natural forests untouched. .

The 23 year old is exceptionally articulate, not only about what he learned from Pianesi, but has views on globalisation and EU's policy against small farmers. He is very happy to be working with UPM, as he receives 6 to 7 times the amount he would get from usual buyers, and when he had a bad harvest, they bailed him out by paying him more. Especially impressive is the fact that he has never been a farmer; but by following Pianesi's advice he was able to do very well.

The first field he showed us was one that belongs to a friend, which has been previously farmed chemically and left uncultivated for a year or two. His friend agreed to let him farm it in return for part of the harvest, and he has sowed a variety of wheat that was traditional in the region. The wheat grew extremely well, and crowded out most of the weeds that were growing in the field.



*Bumper harvest of traditional wheat*

On his wonderfully scenic hill farm, which could only be reached by a rather treacherous unpaved steep and winding path, he showed us how by following Pianesi's advice he was able to plant carrots or onions in particular fields, simply by observing the wild plants that grew there. The key is to plant crops that are *similar* to the weeds. He also showed us photographs taken of frost destroying commercial varieties of cabbage on his farm while the traditional varieties remained unscathed. And during a previous drought, it was the part of the crops next to trees that survived.

We were treated to a sumptuous lunch in the family home where he lived with his parents, a sister and one of two brothers; a delicious stewed leg of goat was included in the menu.

As we were leaving for our long drive to Calabria, he and his father showered us with gifts of seeds, essential oils, herbs, and their very own mountain spring water.

### **UPM and Bernard Shaw socialism**

Perhaps the most remarkable thing about UPM is that it is run on George Bernard Shaw's socialist principles, as expounded in *The Intelligent Woman's Guide to Socialism and Capitalism* [8]. UPM buy directly from farmers and producers and sell to customers through their shops, bypassing all 'middlemen', as Shaw had prescribed. As a result, farmers could be paid 6 to 7 times what they could get from the conventional buyers and are happy and independent. *None of them takes any government or EU subsidies*. The same goes for producers of other goods and the artisans. One thing missing from the cooperative, perhaps, is its own bank and/or LETS (a trading network supported by its own internal currency [9]).

What particularly impressed me was the attitude of all the people working in UPM. I did not ask how much they were paid because it was probably less than what they earned

outside, but as workers get their food and lodging free, or at reasonable prices, everyone is happy, and they even seem to run on “to each according to need” principle. They are all united in loving/adoring Mario Pianesi. Everyone has a story to tell of how Mario gave them back their life by curing them of some terrible disease: terminal cancers, hepatitis, diabetes, autism, heart disease, asthma, allergies, etc. That was why I got a special treat everywhere. All are united in promoting the macrobiotic way of life to the world, of course, which is why they give generously, not only in money, but in hard work, to Pianesi to run his workshops and conferences, which typically require a retinue of cooks to prepare the food.

There are now UPM food served in the Italian air force canteen in Marche, and UPM dinners have been taken to the EU Parliament in Strasbourg in October 2008.

Question is: would something like UPM work without someone like Pianesi, the universal saviour of them all? Would it work in US or UK where family ties are not so strong, and local communities don't really exist anymore? Perhaps the food, fuel, and financial crisis will make people think again of what real wealth is, as opposed to paper money [10] (see [Financing Poverty](#), *SiS* 40) and why happiness and contentment depends on ridding the world of Darwinian competition, to be replaced by cooperation and reciprocity.

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